Construction of Course Ubiquitous Learning Based on Network

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ABSTRACT

Ubiquitous learning has been more and more recognized, which describes a new generation of learning from a new point of view. Ubiquitous learning will bring the new teaching practice and teaching reform, which will become an essential way of learning in 21st century. Taking translation course as a case study, this research constructed a system of ubiquitous learning modes based on network and analyzed the teaching experimental results qualitatively and quantitatively. It is proved that construction of curriculum in the network will be a new teaching idea, which will bring more optimized, more real-time, more targeted results to teaching.

Keywords: ubiquitous learning, network, course, teaching system

INTRODUCTION

Ubiquitous means existing at any time and any place. American famous scientist Mark Weiser first proposed ubiquitous computing (UC) in 1988, which brings the computer and communication technology into our real life, followed by U (Ubiquitous) society, and the application of U-Japan, U-Korea, JAMIOLAS, Mobile ELDIT, ubiquitous technology, resulting in the concept of Ubiquitous Learning (UL). Ubiquitous Learning is a new method that anyone can obtain any knowledge of the way the required in any place, any time.

At present, the amount of information and high level of ability shows the traditional pattern of "classroom plus books" cannot meet the needs of the development of students' comprehensive ability, so the development of teaching and information technology are inseparable. Under the support of network environment, the learning system will provide a highly open, huge amount of resources, self-oriented learning curriculum learning platform, create a free, personalized, diversified learning model, by which the learners can study

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State of the literature

- Studies on ubiquitous learning theory and its practice have gained impetus over last 20 years. Most of studies aim at introducing the new mode and its practice in different fields in general.
- The application of ubiquitous learning system to education field has been proved effectively, analysis of the common criteria methodology for secure ubiquitous environment construction. Employing researcher-teacher co-design and online interactive of a mobile-assisted seamless language learning environment.
- The application of ubiquitous learning system to foreign language teaching, which is much suitable for modern interactive learning mode, based on network has not been studied systematically and deeply.

Contribution of this paper to the literature

- The significance of the present study lies in constructing a system of ubiquitous learning mode based on network.
- Translation course ubiquitous learning system has been created and personalized, employing research-teaching co-design and online interactive of mobile-assisted seamless language learning environment to verify the feasibility and effectiveness in English major teaching .
- The algorithm of data mining in assessment of ubiquitous learning system on translation course has been designed and optimized to test effects of specific mode in detail.

according to their needs so as to improve the efficiency of learning, and improve the quality of learning.

UBIQUITOUS LEARNING THEORY BASED ON NETWORK

The academia generally think, ubiquitous learning as a new learning style is composed of computer technology in ubiquitous computing derived. Ubiquitous computing by USA scientist Mark Weiser was first proposed in 1988. He envisaged in a variety of things in the embedded computer or computing chip, then put these things are communicated through wireless network. Computer wireless communication service is essentially based on things in people's life, the technology fully integrated into people's daily life, make people not to implement 5A technology exists in consciousness (anyone, anytime, anywhere, anydevice, anything) learning, like air and water natural. On the basis of this study, some famous scholars in North America, Europe and other regions have also made a similar point of view, and proceed to U (Ubiquitous) to explore the practical society. Such as Japan's U-Japan ubiquitous network society, South Korea established U-Korea overall policy planning, Mexico interactive experience Museum, UK environment forest project of happy learning experience and USA MIT University participation type simulation game project. The pan has been penetrated, the study uses the concept of foreign language teaching. JAMIOLAS of The Universi. JAMIOLAS of The University of Tokushima in Japan, which is developed based on context aware language learning system, in addition, the U language learning system developed by the University of Barcelona in Spain, the mobile version of the online language and the European Mobile ELDIT project under construction learning system has received the good effect. By 2006, many

developed countries have put the pan network as an important issue of national science and technology development strategy, foreign research on ubiquitous learning has been mature.

In the ubiquitous learning system, learners can learn whenever and wherever possible, need to be able to obtain different forms of learning resources on a variety of devices, these learning resources must be able to present learning situation and promote learner on a variety of devices have learning behavior, learning effect. Resources have variety of forms, from the perspective of equipment, such as for desktop computer WML Webpage form for the form, HTML Webpage mobile phone equipment, the use of different images, audio and video equipment and other media formats are different; from the point of view of system, all the information in the learning system in the pan are resources, leaving the knowledge, learning process such as the need to study the record of discussions in the evolution path, resources are all system resources

China ubiquitous Learning research started at the beginning of this century, largely through the ubiquitous computing, ubiquitous network, ubiquitous society, Pu Shi learning to ubiquitous learning five stages. Our literature available earlier proposed universal is Bai Juan, Li Shufang in the learning concept. They pointed out in 2003 - is a kind of infinite information can be extracted in the huge database of learning styles on learning. After Wang Qiong (2005), Fu Daoming (2007), Shi Huihui (2008), Yu Shengquan (2009) and other scholars have on ubiquitous learning concept of interpretation, think pan can not subject to any time, space restrictions on access to the information they need and relaxed learning in learning means any person. At present, the educational circles of China attaches great importance to the concept of pan, pan has become a hot research field of educational technology in learning. In 2006 tenth session of the global Chinese computer education conference, 2007 third, national educational technology students forum, 2009 sixth China New Year Forum of international cultural industries, the ubiquitous information and ubiquitous learning are listed as the key research topics. But the National Science Education "eleven five" program "in 2009 organized the" development and application of digital learning resources in the study of pan opening will be the future of China's research on ubiquitous learning the "road map".

According to the basic requirements of ubiquitous learning, need to realize is that 5A (anyone, anytime, anywhere, anydevice, anything), in order to achieve a convenient, fast, economic 5A, the best way is to rely on the internet. In the modern network environment, with the help of broadband network, wireless network, campus network, WIFI realize whenever and wherever possible, according to the requirements, according to the interest, according to the content of information, as long as the course content in the information in a variety of forms of loading, can complete web based ubiquitous learning.

COURSE OF UBIQUITOUS LEARNING MODE BASED ON NETWORK

Curriculum design when considering the function of curriculum and the ubiquitous learning way, can start the design from the following aspects:

Online courses

Online course is generally the knowledge acquisition of the site, the general students, mostly can accept this teaching method. While the structure of network curriculum at present most of the sites of single, boring, knowledge content is not vivid, it is difficult to arouse students' interest in learning, it is very difficult to meet the requirement of the. Therefore, to design a ubiquitous network curriculum, it must take into account whenever and wherever possible, but also taking into account the on-demand learning, but also to take into account the form, content of the site, how to let everybody loves learning. Knowledge to do multimedia, through various means and teaching software, teaching design software to make the content of the web site can better and more convenient presentation in front of the scholar.

Classroom online

Online classroom is to realize real-time online learning courses, through the online classroom enjoy explaining the real classroom atmosphere and teacher, is not limited by time, may at any time to learn. This relative to the dull as ditch water character to better and more easily to make the students accept. And to learn can according to the characteristics of their own interest, choose learning or learning content. The classroom should according to several different directions: first, to protect the integrity of the organization structure and knowledge of knowledge, secondly should reflect different aspects of knowledge to fit the different characteristics of the students, again need according to ability to organize content in different depth chromatography according to different difficulty, according to the development characteristics of students and asked to learn to on subsequent learning content.

Interactive Discussion

Interactive discussion is a vital part of teaching, is very easy to implement in the network and learning, but the lack of interaction, communication, so many problems can not be found, in many areas it is difficult to implement. The interactive discussion in the course, similar to the class of teachers and students, between students are discussed, which is more in the classroom experience, but also make students completely into learning, and can solve the problem, make the knowledge learning more solid, solid. But some situational teaching can be unfolded, bring twice the result with half the effort.

Message Board

Message board is a kind of widely used in network communication, communication. Online real-time communication, certainly can also delay the best answer. Through the message board, can be collected from the students' problem, needs or requirements, by the teacher or other students answer, eventually completed the problem. It is suitable for some problems to be solved, but not suitable for the user to solve. Waiting for a period of time, all kinds of solutions will be gathered together, the common organization, to achieve the optimal solution of the objective. For some non real time, to be discussed and solved, it is difficult to solve the problem is very suitable for.

Online Test

Online testing can detect the course learning outcomes, through a period of study, can be self testing to evaluate the learning effect. The system should have submitted automatically, automatic scoring, the answer of analytic function, but also the best adding error analysis function, which can make students better understand their knowledge and their ubiquitous learning effect.

Supporting automatic updates

Mass digital learning resource base should have the function of automatic update, In order to maintain the robustness of the system but update should be based on certain principles, to Free high quality right resources have been covering resources mainly include Issued by education institutions of learning fragment learners shared learning fragments.The learning process of information, these three kinds of information can not be replaced by each other, only.Department of alternative, namely the same content & the same formats of media resources, science.Learning fragment cannot practice sharing alternative learning education agencies.

Of course, in addition to the content, we also require site as far as possible and beautiful, practical, simple operation, suitable for all kinds of environment, knowledge content to update, to achieve a teaching and learning and promote each other, each other well, in teaching high school, learning teaching model, so as to realize lifelong learning.

UBIQUITOUS LEARNING SYSTEM TRANSLATION COURSE BASED ON NETWORK

The ubiquitous build learning system based on the campus network, in the open sharing of resources, to seek multilateral collaboration purposes, learning website as a platform to create a translation course, always can learn, you can learn the ubiquitous learning environment.

Construction of Four in One Learning Environment, Foundation Compaction

The first is based on the campus network, build the translation course network learning platform. Based on combing the translation curriculum knowledge system, creating the syllabus, knowledge points, teaching notes, multimedia courseware, exercises homework, online testing, teaching evaluation and other basic modules. Then according to the point to the line to the surface in order to guide the body of one of the four learning methods. Is vocabulary, is a basic, suitable for beginners to accumulate information, especially for proper nouns with cultural characteristics of the accumulation is very important. Line a small sentence, understand and use the main training learners' translation skills in the simplest context, such as matching, appraise, stealth, degeneration, or, anyway. Is the sentence, is the discourse of the soul. Each sentence can be presented to the source language and target language culture to a certain extent, sentence translation exercises can be good translation skills, comprehensive

English qualities can hone the translator, is the key to translation. Body text, is the embodiment of translator's comprehensive quality, the translator must take into account every detail of the translation, and also take into account to the ideological content and the emotion, to experience the profound social and cultural factors in data fusion. The translation of the text is to practice the core, is the embodiment of translator's comprehensive quality. In the ubiquitous network platform, learners can not only get the knowledge in class, the classroom content network, also can take full advantage of open source, gradual learning using corpus resources amount. And the environment also has support for translation practice activities and record the behavior and evaluation results of learning of students of various functions. Through the network collaborative group of teachers and students, teachers can whenever and wherever possible to provide the necessary guidance, support for learners, to solve difficult problems in class, play a promotion role. So that the learners not only by the system, a wealth of knowledge, but also makes full use of fragmented time, stimulate the students interest in learning, improve the learning efficiency, to master basic skills of translation, the completion of the primitive accumulation.

Create a Personalized Learning System, Improve Their Ability of Translation

In view of the differences in user group level, preference, personalized, diversified learning system is the inevitable requirement. According to the investigation early user group, established in accordance with the difficulty of each plate, content, such as the difficulty of interpreting, is divided into one or two level three, translation one or two, level three or four, the content is divided into English of science and technology, agriculture, tourism English, foreign English English, business English genre. Generic data required from the learner interest, emotion is aroused the interest of learning on the translation of the breach. Students can be based on the autonomous learning required to develop the translation subject, and then in the corpus collected the corresponding learning resources, including related words and cultural background knowledge, and then in a particular field of translation exercises, satisfy the need of individual development. Furthermore, the students in the classroom contact materials are almost single literary works, so practice is always holding the translation methods of literary genre to interpret other literary text, but the results for each genre features and translation from different perspectives and nationhood. In the ubiquitous learning environment, learners can share various genres of translation resources from the collaborative environment of a multidimensional, broke through the limitations of time and space, in the broad field of vision to absorb nutrients, comprehend the connotation of translation, so as to meet the learning requirements, to broaden the knowledge, improve ability.

Construction of Innovative Practice Platform, Integration into the World

Translation is to integrate into the colorful life can be full of angry, the translator's creativity is inexhaustible, learning translation cannot put the learner's thinking is fixed in some mode, practice and innovation in order to make the translation of vitality. In the face of different languages, different cultures, in translation process, the translator should try to

develop innovation, creativity, make the translation more appropriate words, approximate "sublimation". The needs of students, teachers and scholars continue to practice, communication. Ubiquitous learning for learners to provide a context aware learning environment, simulating the real scene, let learners immerse. Can also be used to build network of cooperating parties to language, and learning partners or teachers and guidance, or on-site real-time simulation, translation, language experience in the real situation in culture, especially on the effect of interpretation.

Teaching assessment of ubiquitous learning system translation course based on network

Research projects group design Data Mining in teaching assessment of ubiquitous learning system translation course based on network. Algorithm: first, using the relative positive region of consistent and inconsistent information system of core. Then, in order to attribute dependency defined attribute importance degree, according to the important degree of attributes as heuristic information, select the important degree of attributes in the attributes to add to the reduction set.

Table 1. Sample of ubiquitous learning way

Sample	Online courses (a1)	Classroom online (a2)	Interactive Discussion (a3)	Message Board (a4)	Online Test (a5)	Supporting automatic updates (a6)	Ubiquitous learning (d)
1	Y	Y	Y	N	Y	N	Y
2	Y	Y	Y	Y	Y	N	Y
3	N	Y	N	Y	N	Y	N
4	Y	N	Y	Y	Y	Y	Y
5	Y	Y	Y	N	Y	Y	Y
6	Y	Y	Y	N	Y	Y	Y
7	N	Y	Y	Y	Y	N	N
8	Y	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	N	Y	Y
10	Y	N	Y	Y	Y	Y	Y

Calculation of the relative positive region, calculate the attribute core：

POS(A-{a1})(d)≠POSA(d),

POS(A-{a2})(d)= POSA(d),

POS(A-{a3})(d)≠POSA(d),

POS(A-{a4})(d)=POSA(d),

POS(A-{a5})(d)=POSA(d),

POS(A-{a6})(d)≠POSA(d),

R={a1,a3,a6}, {Online courses, Interactive Discussion, Supporting automatic updates} attribute core

U/R={{1,2},{3},{4,5,6,8,9,10},{7}}

U/R∪{a2}={{1,2},{3},{4},{5,6,8,9},{7},{10}}

U/{d} = {Y1, Y2},

Y1={3,7},

Y2= {1,2,4,5,6,8,9,10}

KR (d)= 6/10,

KR∪{a2} (d)=4/10,

SIG(a2,R,d)=4/10.

U/R∪{a3}={{1,2},{3},{4,5,6,8,9,10},{7}}

KR (d)= 4/10,

KR∪{a3} (d)=6/10,

SIG(a2,R,d)=6/10.

In a2 and a3, a3 importance, so a3 select joined the reduction sets, namely: {A1, A3, A6}. Assuming that the dependence degree threshold = 0.6, then the termination condition is satisfied, i.e. the last attribute reduction set is {Online courses, Interactive Discussion, Supporting automatic updates}. So Online courses, Interactive Discussion, Supporting automatic updates need do well to satisfaction.

CONCLUSION AND RECOMMENDATION

Ubiquitous learning theory and model construction of a constantly learning, everyone can learn, everyone learning environment, this environment provides support for the development of lifelong learning goals, is the social development to a certain degree of individual learning state. Under the environment of network translation course pan test is ubiquitous learning effectiveness in an attempt to construct learning system, no development, not in ubiquitous learning still faces enormous challenges, such as the construction of massive resources database, international cooperation to build, learning methods and learning habits and adjustment problems remain to be solved. But with the ubiquitous technology continues to progress and constantly updating the concept of education, I believe that will be completed by the network learning to mobile learning to the ubiquitous learning transformation, ubiquitous concept will be the construction of lifelong learning society, has the profound significance to realize at any time, anywhere, with the study of dreams.

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