A Model of D-learning New Thinking Direction and its Application in Education

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Abstract: - At present, the internet gets up the computer conjunction of the whole world. The internet causes the change of social and living type, and it has the significant influence to the traditional education way. Sharing the wisdom mutually and providing the cooperation opportunity academically are on the rise with the teaching activity. E-learning uses the World Wide Web as a medium, and achieves the Web-based Learning (WBL). Help through the learning environment of the teachers or the teaching organizations, let the learners have projects to complete a learning.⁴ The Ministry of Education promotes to apply information science and technology actively on the education in the last few years.⁶ Along with the popularization of the internet, the distance learning and on-line teaching also develop rapidly. In recent years, take PDA as the tool, for gathered the wireless surfer form, was clamping under the huge study resources and the convenient potential motion study and the electronic book bag study, enabled several studies just like to become the tidal current and the new tendency which a law kept off. The following the definition, development, related learning theories of E-learning, influence, deliver contents, such as way and merit and shortcoming...etc. to take into analytical.

Key-Words: - PDA D-Learning New Thinking Direction

1 The Definition of D-learning:
In 1999, Jay Cross, the American expert, puts forward word in "E-learning" first. American Society of Training and Education (ASTD) explain what E-learning does:" The computerization study is the learner applies several medium studies the process." American High tech Network Company Cisco: D-learning through the Internet immediately transmits the human who each kind of information and the knowledge gives need. The corporate body Institute for Information Industry thinks that D-learning with the digital tool, obtain digital teaching material through the wired or wireless network, carry on an on-line or off-line learning activity. Comprehensive above, the so-called E-learning is an electronical learning, also including the following digital learn other meaning:
1. Exploration: The learners can investigate a learning freely.
2. Experience: The learners can through with computer interaction, imitation and learning club of support etc., change learning experience, evolve and promote learning level. It also will have the significant change on behalf of the education learning experience.
3. Excitement: Participating the E-learning can bring learners incitement and exciting feeling.
4. Extend: The E-learning can provide more learning choices. The learning becomes to keep on carrying on of
process and extending time of the learning.

5. Expend: Expanding is the extension of teaching space. The E-learning provides teaching pipe-line to extend the outside of the classroom from the paper to on-line.

6. Easy: The digital teaching material interface makes the learners use easily with operation. The users can surf on line at any time. It is easy to learn.

7. Effective: The learners can acquire effective learning result.

Therefore, " E-learning " with digital tools can break traditional scene on-the-spot training curriculum's restriction in time and the space, such as personal computer, internet….etc.

2 E-learning Related Learning Theories

2.1 Constructivism Theory
The construction principle is one kind of theory of knowledge theory, emphasizing through the learning process of the investigation. The construction principle also adaptation describes the knowledge construction process, substitution tradition general the knowledge regards as the truth the view. Only penetrating learner's experience and in the external environment interaction process can confirm the knowledge saving the nature suitably. [9] The network teaching learner has to carry on a learning in the network, in addition to network teaching the assistance function of the system outside, the relevant information collects, learning and the interaction in the classmate of curriculum all have to depend on oneself. In the traditional teaching situation, the teachers can hardly satisfy each student's individual need. In the message link environment of internet, E-learning provides the function of the hyperlink to help learners' organization knowledge, like mankind brain of thinking mode. Therefore the E-teaching is the best sharp weapon of the doctrine teaching of the implementation constructivism theory.

2.2 Situated Learning Theory
Emphasis importance of situated learning, take to explore on own initiative operates and experiences studies, emphasis learning activity real pure, take to study the interaction to participation and to share, take the learner to participation from the edge to the core participation (Enculturation) contains the study process, as well as advocate cognition apprentice system educational model and so on.[1]

2.3 Cooperative Learning Theory
The cooperative learning emphasizes learners with interaction of the way carry on a communication to also take learners as center, through the cooperation method of group, and is played the role of coach by the teachers or other more experienced learners, provides a learner learning the chance and learns a resource, and guides learners to learn and participates group discussion actively. Now in the network the study social group established by the blog, will popularly be a materially beneficial education platform. As the teachers can make fully use of the blog, the teachers and the students can have good interaction. The blog can also be a teaching web page. In the teaching process, if the blog can develop the spirit of cooperate learning , it can enhance the teaching quality and the result.

3 Innovation of Teaching Caused By E-learning
Innovation of teaching caused by E-learning, making teaching method by the tradition"the teacher deliver" changes for " the teacher and pupil teaches mutually". The teacher acts the multi-dimensional roles like a presses sender, a guider, the starter and so on. The following discussion presses to send the education model change the factors

3.1 Internationalization and Willowy Study Plan
The education taking network as the foundation provides to deliver a multi-dimensional transmission method, not only can surmount the space and time restriction, but also can provide far-reaching service to the different communities. It can achieve the flexibility learning of internationalization by expanding to promote students' learning experience.

3.2 Transform from the Teacher Center Teaching Into the Student Center Study
Change teacher as the center of teaching into student as center of learning. It will make the students' learning more actively. Through interaction of the mechanism, information science & technology and teaching combine together with each other, adapting
dissimilarity of students' learning types, and reach a reserved learning target.

3.3 From Primarily Transforms By the Content to the Many Course Guidance Curriculums
The activities of teaching and learning take content as primary, also can't keep up the times pulsation with expanding information and changing ratio of science & technology. The new techniques include: the construction of knowledge, the resolving problem of integration of science & technology, communication etc. Regarding network as principle, the good teaching design can support a cheery knowledge construction, the revision information, the appraisal, the analysis and the comprehensive information.

3.4 Transform from the Individual Study into the More Cooperation Study
A. The technique concept of team construction is the social procedure with exchanging and sharing each other's concept, viewpoint and opinion. It inspires a new method with understanding teaching content and diversified standpoint. The team can promote the students to be in conjunction with cooperation. Information science & technology can expand the learning activities for solving problem, support and promote to cooperate learning activity, group communication and learning result. (2) The network learning method should improve the imperfection caused by conventional education, but lack the study mechanism actually for restraining the students to attend class on own initiative. [8]

B. Comprehending above, the innovation of teaching of information science & technology includes the following several points:
1. The teaching space turns to the opening from the seal.
2. The way of learning turns to diverse.
3. The type of learning turns to the cooperation from the competition.
4. The display of teaching material turns to the dynamic state from the static state.
5. The content of learning turns to the change from the stability.
6. The interaction of learning turns to the conjecture from the entity.

7. The independence of learning turns into active from passive.
8. The source of learning turns to a network from the classroom.
9. The boundary of learning turns to the nations from the district.
10. On-line learning by a person turns into a team.

4 Transmission Pattern of D-Learning
Transmission pattern of E- learning is divided three kinds [7]:
1. Asynchronous Course Delivery: The learners are free from the restriction of time and location, and can surf on the Internet to learn to obtain a new information anywhere at any time. So it is called “Asynchronously Course Delivery”. This is also the most in common use way in the network teaching currently.
2. Synchronous Course Delivery: “Synchronous Course Delivery” emphasizes a kind of instant information to deliver. All participants (include a teacher) have to carry on interaction through the internet system at same time.
3. Blended: (a) The teachers depend on the demand of teaching in the curriculum to choose flexibly to use entity classroom, synchronous mode or asynchronous mode on a teaching method. Putting teaching material on the network lets the students read by asynchronous way. Regarding the explanation, the operation which needs face-to-face or trains the activity chooses the classroom to impart or the network. However, the students in far distant place participate network synchronous course delivery. It integrates effectively traditional face to face classroom teaching and network learning. (b) When learning the activities carried on, the teachers and the students needed not in the meantime or together. If the students meet difficult or can't understand, they can consult toward the teachers or the peers through the e-mail, message board or the discussion area.

5 The Merit and Shortcoming of D-Learning
The merit of D- learning:
1. The restriction been free from time & space : Learning can be carried on anywhere at any time. Learning is no longer limited in inside classroom or class time. Learning extends
time. The study opportunity has no longer been cut off by the distance.

2. Reduce learning cost: The students can save a huge transportation fee, handout fee and the time of traffic back and forth, the time of print etc..

3. The content is more immediately reliable: The content of E-learning renews and preserves conveniently at any time. E-learning makes information more accurate and consistent, and can deliver new information immediately to the students.

4. The teaching material is more diverse: The teaching material can be presented by multimedia, such as words, videos, pictures and animations...etc., which makes learning content more colorful and more cheery. It also can use link in the meantime, provide a supplementary teaching material resource, and increase the deep and wide degree of learning.

5. The adaptability learns: The students can adjust the progress of learning according to own learning ability and the degree choose and arrange curriculums according to own interest and ability. It also makes up the weakness of a traditional education which has to the owners adopted the same progress learning.

6. Study social group construction which is one kind of interaction type and the cooperation -like study: The students can build up long-last social relationship which helps contribute to cooperate learning. When the curriculum is carrying on, the students can discuss together, exchange opinions and also share learning experience. Even though the curriculum was over, the students still can keep in touch to share knowledge and views.

The E-learning isn't all-powerful or perfect, it has the shortcoming similarly. [7]

A. Feel the solitude doing not help easily: What the learners face is an icy computer rather than gets in touch with teachers or peers directly. While the learners are meeting frustrate or aren’t fluently operating, they will feel be stood alone easily.

B. Suit initiative, the self-control high student: The E-learning emphasizes to learn actively and by one's own. It depends on students to control the study flow and learning process mainly by themselves. If students are not able to be self-discipline or indolent, they will be very easy neglected to study.

C. The interaction still had the deficiency: The on-line curriculum can really let teachers and students, students and students interact. Comparing with general classroom, the level of interaction is still lower than the condition with face to face. Many situations and abrupt condition cannot be replaced by the on-line interaction.

D. Hard judge to truth and falsity of learn: whether are the learners themselves or not, they must surf on line to study, participate a discussion, carry on test or hand in homework. Whatever the authenticity of network status and work, the test cheats .etc. is difficult to take in to examine and guard against.

E. The problem of computer equipment: Because the equipment difference is unable to deposit and withdraw the pictures, the videos and the animation, or spends the excessively much time waiting transmission, the learners also will feel discouraged or lose the patience.

6 Applying Information Science and Technology Constructs High Quality Study Situation

The importance of multi-media information science and technology of the internet lies in it to surmount the limit of space and time, studies unlimited to settle in certain one particular time and certain one particular space. In the future, teachers apply information science and technology to the teaching realm, if they want to reach half effort and double results and teaching benefit, they should hold following principles.

A. When information science and technology integrates teaching, it should have its substantive goal existence: The media of science & technology is just a kind of assistance tools, not a teaching target. Its purpose is activating teaching, raising the motive of students’ learning and promoting learning effect.

B. Integrate information science and technology into the teaching project, or place the teaching material in the network and share with the others: New teachers can reduce to grope time and waste manpower, and each other can promote teaching experience. That is a good network social group application.

C. Integrating information science and technology into the level of teaching belongs multi-dimensional, the teacher should make uniform the application: The information of science &
technology integrates more teaching realms or the concrete strategies of the subject. The teachers should accord to actual teaching need and the consideration of teaching situation to adopt the most suitable application way.

D. When the students apply information science and technology to the learning level, they should even value the problem of information ethics: [a] In the virtual learning situation, the teachers should even educate a positive learning attitude to the students. In addition to activity, creativity and cooperate learning, information ethics and the correct idea of copyright should also be built up. Let the students have correct cultivated manners of information science & technology. [b] As the teachers of modern times, you not only have to own computer cultivated manners, but also have to take into application, and should realize and follow with the viewpoints:

1. The big current of information influences an education quickly. Learning center turns from the teachers to the students.
2. Information integrated realm of teaching has already become trend. The teachers of modern times have to realize this pulsation.
3. The network-based teaching becomes the future teaching mode. The learning method of network makes up the shortage of conventional teaching.
4. Enriching unceasingly oneself becomes the joyful information person, having information cultivated manners and the teaching ability of using computer.
5. Applying information of science & technology improves an education and promote teaching quality.

If the teachers of modern times can actively face society of information of science & technology, effectively use information of science & technology, and integrate teaching realm and its teaching process, then can activate the whole learning ecosystem, construct more an situation learning of adaptability and humanization. The students' learning will become more interesting, and the teaching effect will be more up-grading.

7 Trends of Application of Information Science and Technology in School Education

1. Keep on promoting teachers and students' ability of information cultivated manners continuously.
2. Promote and apply information science and technology in the learning activity.
3. The management mechanism that the school administration overall administration computerizes.
4. Use the teacher social group, and establish a digital database.
5. Establish barrier free learning environments, and reduce digital variances.
6. The network learning environment popularizes and expands.
7. Correct information attitude, respect information ethics.

The information society arrives, the change of education system and society structure is already an inevitable trend. If the teachers have no self-reflection abilities, the role of teachers has no self-adjustment, the social education prospect of information of science & technology then will not carry out smoothly. The most important core principle is really effectively application of information of science & technology and integrates learning realm. If can follow an above-mentioned trend, the educational vision of information of science & technology will be a slice of bright.

8 Conclusions

In the information times that grow up quickly, the delivery of knowledge is already been turned to diversified learning methods from traditional learning methods. The delivery of E-learning brings new impact for the knowledge. The methods of training or teaching in education and the enterprises join a technological element. It makes the learners have more diverse learning methods. The advantages of using E-learning have the reduction of learning’s fee, no restriction of the learning location and time, and can provide a guest to study. E-learning really brings many advantages. E-learning is a tendency, but it will not completely substitute for the traditional teaching. The traditional teaching still has its existence value. We have to treat a learning with the new standpoint, and don't reject the change of learning methods, but must make good use of the science and technology to take to us to study on the help.

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