how to reduce distance in distance education: the didactic issues

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Hong Kong, 4-2004

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Abstract

Open education reduces essential changes in concept of teaching: the nature of acquissition knowledge and teaching process, expansion and development knowledge, the changes of roles and status of teacher and learner…

Nowdays, in compare with traditional forms, distance education in fact is most humane form of education and it has nuance with using ICT, gives more independence and openness for learner than "old generation" distance education (for example, corresponding, TV programs etc.). However, there is a paradox that most of educators pay more attention to technology solutions than to didactic one.

The new forms of distance education (distance learning, especially E-learning, distributive/distributed, advanced distributed/ learning etc.) expect to complex solutions for didactic issues in organization teaching learning process. We try to explain these theoretical issues in context of distance education in Vietnam that it is still "exotic".

Introduction

The great achievements in ICT have led to changes in a series of traditional concepts of teaching. It is possible to say that nowadays, distance education (DE) is understood not only as a synthesized form of typical activities to achieve purposes of education but also as a required conditions to efficiently organize educational activities to meet requirements of our society.

The existing traditional can hardly meet the demand for regular and forever learning of the society. Given such a context, DE is thought of as an efficient solution to create equal opportunities, develop the actives of learners, the economicality of education, and shorten the distance of education between various regions of the same countries in the region and the world.

However, there is a paradox that when seeking solutions to improve the efficiency of teaching and to socialize education, educators actually pay attention only to technical solutions employing modern technologies. Very minor attention is paid to didactic issues. In such a case, there is nothing difference between listening to the same teacher again and again and replacing his lecturing with playing an image recorder recording all his lectures to thousands of audience.

DE has really shown us great changes in the process of teaching in terms of psychology, teaching methods, language acquisition, organization form etc.:
- The changes in the nature of knowledge perception, transmission, popularization and development.
- The changes in terms of approach to, content and method of teaching.
- The changes in terms of educators and learners' role in the learning process...

It is quite clear that the coming into being and development of DE is not because of the requirement to recover some deficiency. Contrarily, DE is existing as a new teaching and learning method, which is, by its nature, quite different from the traditional one.

Definition and description of DE

The history of DE has experienced many periods of development. The process of DE development can be divided into the following periods:

Period 1:	DE was formed and organized into the model of
	"One teacher and several learners"
	relying mainly on media publications, correspondence, telephone...

DE can be considered as being born on the 20th of March 1728, when there was a piece of ads on the Boston Paper notifying the movement of the office of Mr. Kaleb Philipps, an expert in short-hand writing (in the notice, he clearly indicated that although his office had been moved, people from anywhere could still contact him to receive guidelines of short-hand writing). The major tool and technology employed for DE is monologic tool, which is based on the design and delivery of cases "Case-technology". (The content and other issues related to teaching is packed into cases with attached instructions, questions and detailed answers which are all exchanged between learners and teachers until the learners have finished their courses.).

Period 2:	DE was developed into a rather popular model of
	"One educator and many learners"

Besides maintaining and developing advantages of teaching facilities, DE focuses more on the application of modern facilities such as audio, video media, TV, satellite etc. The main teaching method is lecturing, explanation, dialogic tool based on the advantages "TV-technology".

Period 3:	*The booming of Internet brought with it the changes in DE model*
	"Many educators and a big number of learners"

Meta tool, which is an integration of existing tools with the innovated ones, has been used. One of the break-through development of DE in this period is the coming into being of E-learning, an alternative form of teaching and learning process, which became a strong competitor against traditional teaching and learning methods by maximizing the efficiency of multimedia, ICT.

There have been many various definition of DE so far. However, all of them share the following points:
- Educators and learners are geographically distant from each others, while the teaching process still takes place.
- Curriculum, program, content are all delivered in distance by various facilities

According to our understanding, DE is currently a combination of educational, teaching and learning services aiming at providing an education environment and education and learning content to all kinds of people in any distance by using NICT (New Information and Communication Technology). Thus, DE has two main characters that is Distance and Openness.

The concept of distance in this case needs to be understood in a broader meaning: It is not only geographical distance but also the distance in aging, qualification, psychology, interests ... and timing.

The concept of openness can be understood in many aspects of the open learning concept: open people enrollment and opportunities (every body has the right to enroll, everybody is free to choose educators and training institutions...) open knowledge (we can learn whatever we want, we are free to choose the curriculum for the course, open time (learning is available anywhen, people are free to choose the beginning and closing time for any learning course), open distance (learning is possible anywhere) etc. DE is suitable with the formula 4A: Anywhere, Anytime, Anybody, Anything.

As DE is existing as an alternative form of the traditional learning and teaching process, priority has always been given to evaluation of DE efficiency. According to some experts, the efficiency of DE is evaluated by using the following criteria (Bates, 1995): *access*, *cost*, *organization teaching learning process*, *interactivity*, *organizational issues* and *novelty*.

Nowadays, DE with the employment of NICT is having advantages superior to the traditional teaching and learning methods (See appendix 1):
- *Informativeness*: opens opportunities for learners to access and get updated with a huge and increasing amount of information about the social economy. New knowledge can be easily updated to DE courses. But is it more difficult with teaching and learning processes using textbooks or curriculums as their tools;
- *Operative feedback*: A lot of feed back information can be received at the same time;
- *Communicative*: If formerly, DE cannot offer face to face contact between teacher and learners as compared to traditional learning and teaching methods, these constraints have now been overcome thanks to NICT. The metaphor "face connection face" can be used to describe DE . The contact process in DE can be operated in various manners such as one-way, double-way, synchronous, asynchronous;
- *Pedagogical*: DE concentrates on active activities with the purpose of teaching by activities of learners, teaching in cooperation with cooperative activities, teaching focusing on self-learning, self-studying, appraising and self-appraising.
- *Psychologycal*: DE creates relaxed psychology for learners by removing all barriers of direct contact;
- *Economical*: DE is cheaper than traditional education by 40-70% according to statistical data;

– *Ergonomic*: The educators and learners involve in the learning and teaching process on a consensus (negotiation) basis in terms of schedule, method, speed, information selection and seeking for the course.

The form, content and teaching method of DE

DE is basically aiming at two main targets: systematic training (certificate and diploma awarding, qualification improvement training, retraining) and improvement of the people's intellectual standard (introduction of new knowledge, improvement of people's cultural standard, introduction of healthy life style, implementation of lifelong learning, education for all etc.).

In order to realize these two targets, the design of DE courses should bring into consideration the following points:

– *Flexible and comfortable learning process and environment* (See appendix 2): Learners can learn anywhere, anywhen and contact with anybody involving in the same learning process etc.;

– *Optimization learning process for learner*: Courses should be designed flexibly to meet all needs, qualifications, capabilities, hobbies and financial abilities of learners; They should be integrated with learners' jobs so that learners can work and learn at the same time...;

– *Diversification of the structure and content of learning material*: Learning material should be well designed to help learners acquire new knowledge, develop a learning behavior and skills in the fastest way. Learning material should be regularly updated and should be designed by using the latest achievements of NICT;

– *Effective management of courses*: The general management principles of TQM or ISO standards can be applied.

Nowadays, DE is being applied in many regions, countries in formal and non-formal education with various forms. However, according to us, the organization of DE can be divided into 2 main models:

Model: Full DE

and **Model 2:** Partial DE in coordination with traditional models

Model 1 can be described as an educator teaching a specific subject from distance. This is a very popular concept of DE. The nature of this model is that there is really a distance between the educator and the learners in the teaching and learning process. Activities of the learners are carried out in the following chart: *Receiving learning material – Studying – Doing tasks – Handing in results – Checking and Appraising*. The multidimensional interaction in DE including is seriously minimized. If this model is considered in the third development period of DE with the application of NICT, the following formula is workable:

Teacher - Internet - Learner

The tasks of an educator is to provide information, guidelines, support to learners and to appraise all-sided learning results of learners. The tasks of the learners are to receive, seek and process information. This model is to some extent superior to the traditional ones in terms of learning speed and cost... A disadvantage of DE model is the unavailability of face to face contact.

The second model can be understood as educators teaching how to learn in distance. This is a coordination of traditional and distance learning. It employs a reasonable integration between traditional and distance learning in terms of curriculum, face to face contact between educators and learners (Educators can use the content of distance learning for direct teaching in classroom). According to experts, the rational proportion of DE and traditional learning is distance learning making about 70-80% of the curriculum, depending on the specialized topic of each the course. It can be reflected in the following formula:

Teacher with Internet – Learner	or	Teacher – Learner with Internet
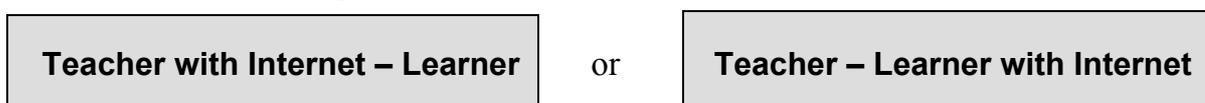
The nature of this model is that educators instruct learners how to learn in distance by giving detailed examples, introducing tools for seeking, storing and processing information, having online, off-line and face to face contacts with learners, following up with their learning process and give evaluation. According to us, this is the most sensible way of organizing DE, which can diminish disadvantages created by DE in the teaching and learning process, help learners maintain the positions of "consumer-follower" and become "producer-creator".

Whatever model is applied, the major difference between distance learning and traditional learning is the activeness and initiatives of learners in the learning process. In order to be able to participate in a DE course, learners should be goal-oriented, self-motivated, self-disciplined, well-managed and work independently.... Under the instructions of the educator and in coordination with other learners, a learner can seek and process required information and develop the skills of self-learning, self-researching and learning forever.
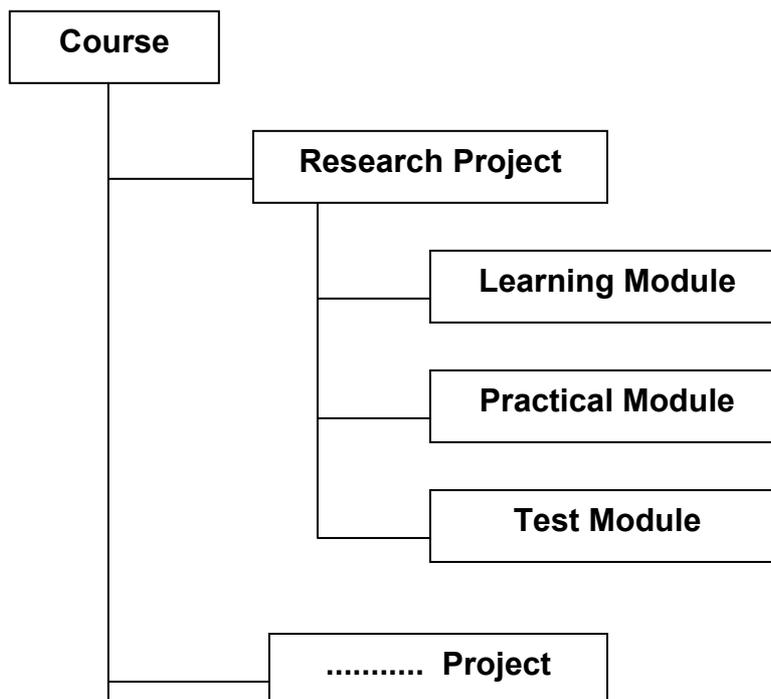
Contrarily, educators should not only satisfy the thirstiness of learners for information but also make them feel thirsty for information. The role of educators in ED is therefore very important. Getting involved in DE in the role of educators are experts of various fields such as managers, curriculum designers, administrators-organizers, pedagogues, methodologists, teachers, subject teachers, tutors, technician... Especially, teacher-coordinators and tutors make a very great contribution to the success of a learning course as well as to the progresses of learners. Such people should have broad knowledge on the related subjects, know how to organize the management of the course and the learning environment, possess pedagogical capabilities and ICT (presentation of lessons, raising questions for discussion, facilitating and answering questions arisen in discussions and feedback...).

The content of traditional learning is scientific knowledge refined and packed into curriculum, textbooks and transferred to learners in a very rigid manner. Nowadays, the development of Internet (www), open sources of learning material and data and the increasing amount of knowledge force learners to clearly identify where

they want to go. Therefore, the most important component in the content of a curriculum is how to select and process information and settle problems rather than the information and knowledge themselves (as teaching means teaching how to learn). The organization and designing of the content of any curriculum is a new process by its nature rather than the transmission of textbook to internet and changing textbook hardcopies into e-books.

Each course must be organized into smaller projects such as research project, practical project, games project and creative project, assuring the sufficiency of the curriculum including facts, concepts, procedures, processes and principles. Each project is designed by modules (which can be fixed linear or flexible) including: learning module, practical module, test module. These modules should meet the following principles:

- *The principle of free selection*: Learners are free to "run and operate" the content (free to select the sequence of lessons to be learnt, illustrative charts and audio-video clip, easy to surfing, link crossing various contents...);
- *The principle of openness*: Situations and problems in lessons are open; three are many ways to solve them; learners are required to find answers beyond the lessons...;
- *The principle of activeness*: By learning, learners will be able to develop their behavior and skills to various subjects, their ways of learning and broadening their knowledge...;
- *The principle of feedback*: Information and ideas are regularly exchanged between learners and learners, learners and educators...;
- *The principle of ideal*: Learners should believe in the selection that this is the most efficient course with the and most diversified content, the best educators team, where their personal capabilities can be best developed at the cheapest cost...

Course

Research Project

Learning Module

Practical Module

Test Module

.... Project

Structure Distance learning course

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The learning environment in distance learning (with the application NICT) requires changes in teaching and learning methods. The success and quality of any course depends on the orientation, planning and preparation for the course by learners. Therefore, there should be an exchange of ideas between learners and tutor before the beginning of any course. Educators will work together with learners to solve tasks of each module by applying the best teaching methods such as case study, problem based learning, brainstorming, critical thinking etc.

Current situation of DE in Vietnam

Social Needs

In Vietnam annually there are about nearly 1,5 mio. pupils graduating from upper-secondary schools. Even if universities and colleges, upper secondary technical and vocational schools can employ their maximum capacities, they can meet only 30% of the needs of the mentioned pupils. Therefore, annually there are about 700.000-800.000 young people participating in the labor market without being trained. The fast economic development push forward a very big requirement for training and retraining the labor forces of all economic sectors (according to an unofficial source of information, about 80% of those who are working have this kind of need). Nowithstanding that the needs of having knowledge updated and improved of all social classes ... to catch up with the fast changes of the social economy have not been mentioned.

Policies of the State

The Law on Education of Vietnam has affirmed the role of DE which should be institutionalized and be considered as " an education program to obtain diplomas of the national education system in the form of both working and learning in distance and self-learning" (Article 41, item d)

Legal documentation on education development strategies of Vietnam has clearly identified the advantages as well as prioritized development trend of DE in non-formal education forms, which focuses on enhancing the application of ICT in DE in the coming time with the target of : "Developing non-formal education system to give everyone at all knowledge levels opportunities to pursue life-long learning which is suitable with their own circumstances and to make their contributions to the improvements of the people's knowledge and manpower... To develop various types of distance education in the form of programs of education and training to provide certificates/degrees and professional skill training to generate incomes and raise life quality as well as standardization of the qualifications of teaching staff, managers, administrators and civil servants from central to local levels..." (*Educational development strategy from 2001 to 2010, approved by the Prime Minister of Vietnam under decision 201/2001/QD-TTg, on Dec 28 /2001*).

Some outcomes

The network of Community Learning Centers has been expanded to communes, districts and located at commune post-offices to use modern means of telecommunication such telephone, fax, internet... DE programs have been designed secondary education based on formal curriculums. The system of mass media servicing DE has been developing: TV programs have been transmitted to all territories with a TV program VTV2 designed specifically for DE. At present, 100% universities and colleges and 96% upper secondary schools have internet connection. The speed of transmission is improving (ADSL, ISDN). The number of Internet users is also increasing: 2,5 mio. people as of March 2004). The EduNet administered by MOET has been launched with an aim to unify all DE activities and develop the on-line training model for all kinds of education.

In Vietnam there are currently 2 open universities (Hanoi Open University, Semi Puplic Open University, Ho Chi Minh City) and 8 universities licensed by MOET (Ministry of Education and Training) to offer DE to nearly 100.000 students running for higher education degrees in various specialization. However, these DE programs have not been designed in a interlined and integrated way.

Since 1994 many distance training centers, private and joint-venture companies... have started to participate in the field of DE with various training programs. Most of these programs focus on those wishing to self-train or retrain for certificates or degrees in some key economic fields such as (ICT, BA, Administrative Management etc.). Especially, there are some DE programs for pupils preparing for the entrance exams. The on-line courses preparing for the entrance exams have attracted a lot of pupils.

Challenges

DE is really an efficient solution to the mathematical task of how to socialize education and assure regular and long-life education for every body. In order that DE can develop efficiently to meet the requirements of socio-economic and technical changes, it is necessary to:

- Improve the technical infrastructure (the ITN)
- Develop a diversified learning material system interlined with various domestic and overseas training programs.
- Develop a teaching-learning theory and methodology in e-education with the application of latest training technologies (the technologies of organizing, deploying, course designing, evaluating, using Internet etc.)
- Train and develop manpower servicing e-education...

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Appendix 1

Comparison between Traditional learning and Distance learning

Traditional learning	Distance learning
The starting and closing time of learning courses are fixed	Learners self-decide on the starting and closing time of learning courses
Curriculums are designed on a closed, sequential and accrual basis	Curriculums are designed on a open, selective and accrual basis
Learners are gathered at the same time to the same location for "face to face" contact, therefore you can participate in only one course at the same time	Learners can choose the location and time of connective the courses. Therefore, you can participate in various courses at the same time
The purposes and content of the course are determined by the training institutions	The purposes and content of the courses are determined by the learners after having consulted their tutors to meet their capabilities, needs and hobbies ...

Appendix 2

Traditional learning	Distance learning
Teacher-centered in instruction	Student-centered learning
Single-sense stimulation	Multisensory stimulation
Single-path progression	Multipath progression
Single media	Multimedia
Isolated work	Collaborative work
Information delivery	Information exchange
Passive learning	Active/exploratory/inquiry-based learning
Factual, knowledge-based learning	Critical thinking, informed decision-making learning, researching
Reactive response	Proactive/planned action, adaptableness
Isolated, artificial context	Authentic, real-world context

(Source: The International Society of Technology in Education – ISTE)