Online training in regular fostering of school science teachers to meet education innovation in Vietnam towards the development of cross-culture teachers

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Abstract. Regular fostering teachers is an annual imperative task for the school teachers. This has been stipulated in the Government document, the Ministry of Education and Training (MoET), the (provincial) Departments of Education and Training in Viet Nam. The form of concentrated and periodic fostering teachers as implemented in Vietnam has many limitations, those are: for millions of teachers need fostering and retraining in order to meet the time requirements of education reform, the concentrated fostering is not feasible; professional contents do not meet each local or individual learner; It is costly to spend on classrooms, teaching equipment; costs for teachers and experts; travel, accommodation for concentrated stay are also costly, and time consuming. The article provides regular training form for geography teachers by online training to address the limitations of concentrated regular training while promoting the outstanding advantages of online teaching. This article has developed a number of special subject contents for fostering the social sciences teachers to meet the requirements of current education reform in Vietnam. The article also mentions the possibility of using online training to foster teachers that are qualified to teach in the region and the world.

1. Introduction
Regular training (BDTX) in general and of social science subjects in particular for high school teachers is a mandatory annual task as stipulated in Circular No. 26/2012 / TT-BGD ĐT dated 10/7/2012 of The Ministry of Education and Training of Vietnam promulgating the Regulation on regular training of pre-school, [2],[3] has clearly pointed out:

“Teachers study and are regularly trained to: 1/ Update their professional knowledge, improve their political qualities, professional ethics, develop their teaching and education capacity and other competencies according to the teachers' job standards, requirements of the school year tasks, educational levels, requirements of educational development of the province, requirements for renewal and improvement of the quality of education in the entire branch; 2 / Development of self-learning ability, self-improvement of teachers; capacity for self-assessment of the effectiveness of regular training; Capacity of organization, management of self-learning, self-improvement activities of teachers of the school.”

The periodically-concentrated form of teacher training as implemented in Vietnam has shown many limitations, such as: the number of millions of teachers need training and retraining to be able to timely meet the requirements of education reform, the concentrated training is not feasible;
professional content does not meet the local or individual learners; costly for classrooms, teaching equipment, teachers and experts; traveling, accommodation and food supply is expensive, time consuming; ...

Research on regular fostering high school social sciences teachers by online training in addition to improving the professional qualifications of teachers to meet the fundamental and comprehensive reform of education in Vietnam today, it also open an opportunity for training, that is, online training teachers to reach regional and world standards, towards the development of cross-cultural teacher resources.

2. Research methods
System Analysis: Use the systematic analysis method to review and evaluate regular fostering social sciences teachers with those in other subjects in the high school curriculum, and with the overall of fundamental and comprehensive reform of education process in Vietnam.

Modern teaching technology methods: Online teaching using advanced technology such as the Internet, computer and computer software, together with modern teaching methods and management of learners that contribute to improving the quality and effective training.

Methods of survey, experiment, summation of experience to ensure the contents and regular fostering forms close to the actual requirements of each locality, subject, and subject learner.

3. Results and discussion
3.1. An overview of online training
According,[1] Teaching Online Geography textbook, "E-learning is an advanced, comprehensive training method that is able to connect and share knowledge effectively. It aims to achieve good teaching and learning objectives, including convenient direct interaction between learner and trainee as well as learning community through Information and Communication Technology"(p. 3).

Compared with traditional teaching, online training has the following outstanding advantages:
- Flexibility: Learners can study anytime, anywhere (Just-In-Time) as long as they have an Internet connection or other means of communication. This is very suitable for those who have a stable job wanting to further improve their knowledge level. Under the current conditions, the Internet has been widely spread throughout the territory of Vietnam, the Internet connection in teaching is quite possible.
- Personal adaptability: learners can complete the course quickly or slowly according to their cognitive ability and timetable.
- Reduced training costs: With the initial cost of designing online learning content, the training is evaluated as with much lower training costs than traditional classrooms.
- The rich learning materials, always updated: Online training can help learners to access the vast knowledge treasure of humanity with the support of the software to search on the Internet. On the other hand, learners can also share their learning resources with others. In particular, the materials are regularly supplemented, updated with new knowledge.
- To contribute to the training learning attitude skills: To learn in an online environment requires the learner to have good learning habits, self-learning skills and self-management of time. This gives the learner the ability to work independently and creatively. Unlike traditional classrooms, many students are hesitated that they have not yet bravely raised their objections and criticisms about teaching contents and teaching methods, online training creates discussion forums openly and straightforwardly, and at the same time eliminate the concerns of learners that with the same content, but each teacher has a different approach to the issue. This helps to train serious attitudes and develop critical thinking in learners.
- Enhance the ability to remember in the learner: Thanks to the outstanding advantages of multimedia technology, online training affects learners through many information channels such as text, images, charts, audio, video, animation, simulation, ... The learning environment has integrated
multimedia technology helps the learners to increase the ability to memorize. In addition, the learning content is designed, transmitted and linked to the online repository of data to help students easily review the knowledge that for the first time was not very clear to them.

- Easy management of learner learning: Through the LMS / LCMS remote learning management system, managers, faculty, families and other learners can easily follow the learning process and results of the learner in each module. As a result, managers and faculty can identify what content the trainees need to be retrained or further trained to help them achieve the best results at the end of the course, and this helps the teaching to well differentiate and individualize learners.

3.2. Regular fostering social science subjects for high school teachers in the form of online training

3.2.1. Building some content for regular training of high school social science subjects to meet the educational reform.

In order to meet the requirements of education reform, by surveying the needs of a number of high schools, the author has built some special subjects on high school social sciences for regular training with new subject matter content and is necessary for high school social sciences education:

Core subject 1: "Fostering and Developing Social Science Subjects Program in High School"

a) The objective of the core subject
* Theory
  - Understand and analyze the content of social sciences knowledge innovation in general program of the current education reform in Vietnam.
  - Determine the scientific basis of social sciences knowledge content in the general curriculum
  - Assessment of social sciences knowledge content in integrated and differential teaching of the general curriculum.
* Skills
  - Ability to analyze and propose knowledge on social sciences in the general school curriculum in the direction of innovation.
  - Skills to renovate the program
b) Summary of thematic contents

Providing learners with innovative models of education from some countries in the world that can be applied in the conditions of Vietnam; Basic concepts and methods of program development in general and of social sciences in particular: basis for the development of the program, the relationship between scientific knowledge and teaching knowledge in general schools with professional knowledge. The subject provides learners with a complete set of curriculum content related to social sciences in general schools, the degree of social sciences knowledge integration in the various disciplines. On this basis, the teacher can actively develop the school curriculum suitable for the target education group.

Core subject 2: "Teaching social sciences in a multimedia environment"

a) The objective of the subject
* Theory
  To provide a basic understanding of multimedia teaching, about E-learning. Learn software applications in online course construction. The process of building and the method of using E-Learning in teaching social sciences.
* Skills
  - Forming and practicing skills for teachers in building and using electronic lectures in social sciences teaching;
  - Provide the skills to build courses and organize online teaching social sciences.
b) Summary of thematic contents

The subject provides the contents of the need for innovation of teaching methods in a multimedia environment; learn some application softwares; process and manipulation of e-lesson design, web-
based online teaching design, the development of a number of model lectures and the organization of e-learning.

Core subject 3: "Training social sciences teaching skills in High School"

a) The objective of the subject

* Theory
  - Strengthen the practical skills and skills to exploit knowledge from different sources.
  - Improve knowledge about the organization of educational activities for the learner.
  - Strengthening skills in handling and dealing with pedagogical situations in the education process.

* Skills
  - Through the course, learners are well aware of the importance of fostering professional knowledge, practicing skills, teaching techniques, enhancing teaching capacity and quality, and professional ethics to meet the requirements of society in the current educational innovation cause.

b) Summary of thematic contents
  - The subject provides learners with a systematic view of the teacher's basic skills, reinforces learners with the skills they need during classroom instruction as well as organization of educational activities.

Core subject 4: "Organizing creative experiential activities for social science subjects in High School"

a) The objective of the subject

* Theory:
  - Identifying, analyzing and evaluating skills of applying theories learned through social sciences into problem solving in reality with the formation of competencies for learners; Points to note for teachers when guiding creative experiential activities; Implementation methodologies for teaching creative experiences in social sciences.

* Skills
  - Set up a quiz questionnaire system / game organization, contest organizing skills, experience organizing skills, etc.

b) Summary of thematic contents
  - The content of the subject equips learners with common issues about creative experiential activities; Identify creative experiential activities in social sciences teaching through the topics. Design of some specific creative experiential activities for social sciences teaching in general schools. Creative experiential activities in social sciences are diversified and integrated contents, bringing together knowledge and skills on a wide range of topics, fields of study and education that are designed as open topics.

3.2.2. **Building the website 'regular fostering of high school social sciences.**

The software used in website building:

The main tool for building online learning websites is the software E-Learning XHTML Editor (eXe) and the Modular Object-Oriented Dynamic Learning Environment (Moodle). eXe is an authoring tool designed to run on the web environment to help faculty in designing, developing, and publishing teaching and learning materials on the web. EXe software aims to provide an intuitive, easy-to-use tool that allows lecturers to publish professional web pages for teaching. Moodle is an open-source learning management (LMS) system that enables the creation of courses on the Internet or remote learning websites. Moodle has the advantages: flexible and customizable, each person can build Moodle activities on his/ her own and share them; Moodle has a global community that can coordinate and help each other during the work; Moodle is free to download and use.

Interface of the homepage (see figure 1).
* Main contents and teaching activities on the website:
  - The course information: includes the name of the course, the requirements of the course, summary of the course, starting time, ending time of the course, ...
  - Learner management: including student enrollment or exclusion, student attendance management (class or interest groups).
  - Course materials: Contains the full content of the course including learning resource packages, video lectures, PowerPoint presentations, video clips, online reference materials, and more.
  - Study Forum: is a place to raise and discuss topics. Learners can participate in one or more forums, find information in the forum, read and reply, send E-mail, chat with interested people. Trainers monitor and conduct the forum to the right direction, as well as review and evaluate learners.
  - On-line testing and evaluation: On the website there is a tool to check online learners. Learners can participate in objective tests (biennial, right-wrong, multi-choice), in self-examination, or do exercises. After submitting the answers to the test, the learner receives the feedback including scores and comments from the teacher. Learners can self-assess their learning ability, thus adjusting their learning accordingly. The faculty member also grasps the acquirement of the learner to make timely adjustments to individual instruction (see Figure 2).
3.2.3. Design models for regular fostering courses in social sciences.

Online teaching and face-to-face teaching have their advantages and disadvantages. In order to maximize the effectiveness of each form of teaching, the author selects a model that combines these forms called blended learning.

According to [1] Teaching Online Geography textbook: "Combined teaching is the co-ordination of content, methods and ways of teaching and learning organization, between different forms of learning to optimize the strengths of each form, ensuring the effectiveness of education achieved is the highest" (p. 98).

There are several levels of combination in regular fostering of social sciences as follows:

- Level 1: Online teaching parallel to concentrated regular training. In level 1, learners will learn a part of the content in the form of face to face, often the hard part that needs to be explained and exchanged directly between the teacher and the learner, the rest they will learn on their own via the Internet. This type of teaching reduces the time spent in class while still ensuring the quality of teaching. For example, when teaching Core subject 4: "Creative experiential activities for social sciences in High School," it is possible for learners to pre-read, watch video tutoring experiential activities on the Internet, time in the classroom is for hands-on activities.

- Level 2: Online learning part of the refresher program. In level 2, the regular training program will be subdivided into modules, based on the content and relevance of each module to apply the online or offline teaching form accordingly. Level 2 instruction will provide an active, independent way for learners to be part of the program, thereby improving their online learning skills completely. Example of teaching Core subject 2: : "Teaching social sciences in a multimedia environment" can be divided into modules (as chapters of the subject), modules such as the theory of online teaching, the introduction of software used in online teaching, others parts will be taught in the form of face-to-face.

- Level 3: Online teaching the whole program. For learners who have improved their online learning skills while selecting appropriate regular training content, this training can also be conducted completely on the Internet.

3.3. Ability to use online training in teacher fostering to develop cross-cultural human resources

In the integration period, the training of teachers who have enough knowledge and skills to undertake international teaching is very important and is of particular interest. In order to meet the training and fostering of teachers capable of cross-cultural teaching, using online training is the best solution for the following reasons:

- With the ability to connect without borders, learners have access to cutting-edge programs with enormous human knowledge. They learn and exchange with many teachers, colleagues, people of the same interests from different nationalities.

Learners themselves can choose the appropriate knowledge for their expertise, determine the learning process accordingly.

Learners do not have to pay for accommodation, transportation, living expenses or other expenses such as tuition and lecture fees, etc.

- Learners can study anywhere, at any time, as long as they are suitable for the individual learner, to: "Learn any time, anywhere, and study for life."

- English is a barrier to the development of cross-cultural teachers. Through online training, they will improve their English skills through online English courses, through study and exchange in English with foreign lecturers and students.

- Online training is a new modern form of teaching that is only initially implemented in Vietnam. Therefore, the use of online training in teacher fostering is an opportunity to bring online teaching into the schools in Vietnam, helping Vietnamese teachers have the opportunity and conditions to reach other countries in the region, and the world.
4. Conclusion

The content of the article focuses on studying and analyzing the advantages and disadvantages of online training methods. From this, the combined teaching (Blended learning) model proposed is an effective and suitable option for social sciences teachers regular fostering at present. Introduce the regular training website for social sciences in high school with selected topics to meet the education reform in Vietnam; online teaching, exchange activities, discussion, evaluation, ... aim to achieve high efficiency teaching. The article also mentions the use of online teaching system in cross-cultural teacher training in the near future. The success of social science teacher training and retraining will be the basis for applying for other subjects.

In order to promote the effectiveness of research results, the author would like to make some notes:

1. It is necessary to maintain a team of highly qualified professional trainers to use and develop the regular fostering website. Regularly renovate regular training content in accordance with Vietnam MoET's orientation, suitable to the actual conditions of each locality and learners.
2. To create funding for the maintenance and development of websites, funding for building and development of the curriculum of regular training subjects and teaching expenses for lecturers.
3. General school teachers need to raise awareness about self-improvement, self-training, and improve their English. General schools should create conditions on funding, time and facilities for teachers to carry out their own self-refreshing tasks and regularly check and evaluate their regular training quality.

References

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