

## Some basic Requirements when Integrating Information Technology in Teaching History in Schools

Nguyen Manh Huong<sup>1\*</sup>, Nguyen Van Ninh<sup>2</sup>, Nguyen Thi The Binh<sup>3</sup>, Nguyen Thi Phuong Thanh<sup>4</sup>, Nguyen Thi Bich<sup>5</sup>

<sup>1\*</sup>Advanced Lecturer, Faculty of History, Ha Noi National University of Education, Ha Noi, Vietnam.

E-mail: nmhuongsphn@gmail.com

<sup>2</sup>Lecturer, Faculty of History, Ha Noi National University of Education, Xuan Thuy. E-mail: nguyenvanninh27@gmail.com

<sup>3</sup>Associate Professor, Advanced Lecturer, Department of History, Ha Noi National University of Education, Ha Noi, Vietnam.

E-mail: thebinhsphn@gmail.com

<sup>4</sup>Main Lecturer, Department of History, Ha Noi National University of Education, Ha Noi, Vietnam.

E-mail: phuongthanh2007@gmail.com

<sup>5</sup>Advanced Lecturer, Department of History, Ha Noi National University of Education, Ha Noi, Vietnam.

E-mail: bichnt@hnue.edu.vn

### ABSTRACT

In the trend of development of modern education, the application of information technology in teaching general subjects in school history in particular need. It will contribute significantly to the basic innovation, comprehensive education in Vietnam. However, the integration of information technology in teaching cannot be arbitrary, but must be based on the characteristics of each subject, in order to exploit the advantages and overcome its limitations.

From research teaching theoretical subjects and practical training history teachers in the Faculty of History, Hanoi National University of Education, the author helps the reader aware of the role and significance of the area of information technology in teaching History, and specify four requirements for teachers to integrate information technology in teaching efficiency.

### Keywords

Modern Education, Information Technology, Teaching History.

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### Introduction

Teaching (teaching) in general, History subject in high schools in particular must be conducted based on the requirements and principles of teaching reasoning, that is the basic viewpoints that direct operations. teaching (for teachers - teachers) and learning activities (for students - students), in order to fulfill the set objectives. These requirements and principles do not take away the creativity of teachers or the activeness of students, but also create conditions to contribute to further improving the quality of education.

This article we would like to share and exchange about the basic requirements for teachers when integrating IT in teaching in general, History subjects in high schools in particular.

### Methodology

This study mainly uses qualitative methods, with synthesis, analytical and inductive methods, combined with historical analysis and explanatory method.

### Main Results

#### Knowledge Requirements for Integrating IT in Teaching History

Firstly, teachers must base themselves on lessons to determine the right objectives and knowledge standards, skill standards specified in the curriculum and textbooks in high schools. In order to organize an effective lesson time, the preparation at home - teacher lesson plan preparation plays a very important role (including the design of e-lesson plans - e-learning station), first of all, defining the right goals and standard knowledge of lessons.

According to the current popular classification, historical lessons in high schools have four basic types: Lessons to research new knowledge;

Reviews, preliminary and final review lessons; Knowledge test and mixed lesson. Each type of lesson has different goals, contributing to the teachers' orientation to choose appropriate content and teaching methods. For example, with new knowledge research lessons that are responsible for enriching students with knowledge, emotions, skills and historical thinking, the content and teaching methods of teachers must all serve this purpose. Or, for types of tests and assessments, in order to perfect and evaluate students' absorption of knowledge after a learning process.

The objectives of each type of lesson must be determined specifically based on the standard of knowledge, skills and attitudes in the program defined by the Ministry of Education and Training. Determining the right types of lessons and lesson objectives will be the starting point for teachers to choose basic knowledge content and design the electronic test, creating the best conditions for students to acquire knowledge when studying in class. If the lesson has pictures, historical diagrams available (in textbooks, on the Internet), IT should be used as a visual teaching tool. In case the content of the lesson has no images, but the teacher designs schematic knowledge, IT should be used as a teaching method, combining fluently with other methods (such as words, historical documents, sentences). ask, describe).

If the teacher designs the electronic training device without basing on the content of knowledge standards, it will be difficult to avoid the disease of "piling up documents", leading to the situation of "overloading", "cramming" knowledge for students. Therefore, following the knowledge standards in the program prescribed by the Ministry of Education and Training, at the same time studying textbooks to select information (text channel, picture channel, sound channel and picture channel + sound channel), do Knowledge standards should be respected by teachers. This work not only avoids the situation of "embracing" knowledge, making it difficult for students to follow and distracting thoughts, but also shows the improvement of teaching methods, helping students to learn more excitingly and positively, teachers also. have conditions to organize teaching - learning activities in the direction of focusing more on learners (because there is not much need to present). In November

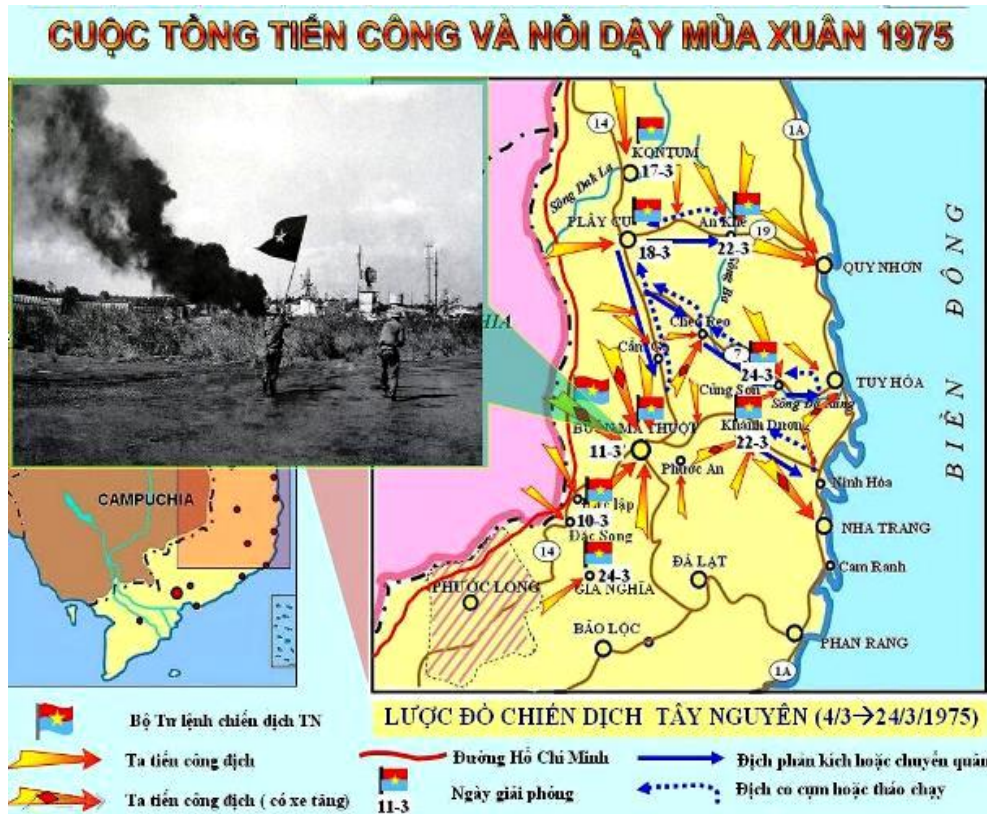
2009, the Ministry of Education and Training issued the document "Instructions for implementing the standard of knowledge and skills of subjects in high schools". Accordingly, knowledge and skills standards are the basic and minimum requirements that students need to achieve after each lesson, chapter, and class. This is an important basis for teachers to define basic knowledge in teaching history.

Second, the exploitation and use of historical knowledge taken from the IT environment must ensure the basic requirements of the science, ideology and typical of each event and phenomenon. History is both a science and ideological, so this principle should be thoroughly understood by teachers, especially when history teaching is ethnic.

In this case, the science is manifested in many angles, such as: the images collected, designed and used by teachers on digital stations must have a clear origin, high reliability, reflect the main facts, historical phenomena in terms of time, space, characters, figures. The visual and sound factors must agree with each other. In addition, the science must also be based on whether the teacher using the training device in class is appropriate, feasible or not, The ideology is shown in the teacher's orientation for the students to express their attitudes, thoughts and feelings before each event that history teaching is learning from the point of view of the Vietnamese Marxist education and history. Accordingly, teachers need to find out the lesson objectives, based on knowledge standards, skills and attitudes in the program specified by the Ministry of Education and Training. On that basis, select the correct, educational and knowledge-appropriate historical images in textbooks. Or, when introducing, instructing students to search information on the Internet to support learning (students are assigned to do homework in groups, or learn about local history), the teacher must provide students can reliably address, orient according to topics and close the content after students' presentation. With high ideological images of history (such as through the content of the event to educate the leadership of the Party, national traditions, condemn the brutal policies of the enemy), teachers need to exploit thoroughly, combining practical relations in order to realize the motto "theory with practice".

On the other hand, historical knowledge is very extensive, reflected by many sources (including text, video and sound channels) in the fields of economy, politics, military, culture, thought. But each event is associated with a specific situation (with time, space and character). Therefore, when

applying IT in history teaching, teachers must know to collect and select typical images according to the motto "less but more refined, much more raw", in accordance with the basic knowledge contained in textbooks.



To concretize this requirement, we designed the electronic textbook schema of the Tay Nguyen Campaign (from March 4 to March 24, 1975) on PowerPoint software when teaching section III.2.a yes the same content (Lesson 23, Grade 12 history, standard program). In order to ensure the science and accuracy (on the border line, the place of interest, the symbols of the scheme), we rely on the wall map provided by the Ministry of Education and Training for schools.

In order to increase the vividness, concreteness and excitement of students in the learning process, we draw the attack arrows of our army, linked (by Trigger technique) with some images: campaign of the Central Highlands, the invasion of our army into Buon Ma Thuot and the Chaos Fleet of the Saigon army (use the Drawing tool to draw flag symbols, attack points and create an Entrance / Wipe effect).

When teaching about the happenings, the teacher presents the schematic, combining the problem:

Why did we choose the Central Highlands as the opening point of the Spring 1975 General offensive and rebellion? How did the Tay Nguyen campaign take place and won? Students rely on textbooks to answer, and then the teacher concludes (Central Highlands is an important strategic area in Indochina, but the enemy is thin and the defense is very loopholes). Next, the teacher uses the strategy on the schema, combining flexible mouse click for students to acquire knowledge, memorize the time and the key opening match in Buon Ma Thuot, creating a foundation for their education on leadership roles. Party religion in the Tay Nguyen campaign. After completing the strategy, the teacher asks the students to state the meaning of the Central Highlands victory, and then concludes: The successful Central Highlands campaign has transformed the war against the US to save the country to a new stage, from advancing the development strategy to the General. Strategic

attack across the battlefield in the South (pictured above).

### **Technical Requirements (Skills in Using Technology) in the Teaching Process**

Firstly, teachers must know how to exploit the strengths of technological factors, be proficient in measures, manipulate pedagogy and avoid abusing techniques. This is one of the most important requirements and principles that the teacher must thoroughly grasp, in order not to turn the electronic test into the "transcript" lesson. The effectiveness of IT application in teaching depends greatly on teachers, including pedagogical ideas. Teachers consider IT as a teaching tool like other tools and exploit it in its abilities that other tools do not show well, or not, but do not abuse it. Here, we do not present specific technical aspects, but only describe pedagogical actions when teachers have mainly made technological elements to apply to teaching. The strength of the technology element in history teaching is the ability to present multimedia through being visual, concrete, vivid and surprising. Teachers can design text channel slides, knowledge diagrams, historical diagrams,... switch from "still" images to "dynamic" images (videos, historical animations with sound and color), perform links to various sources of information related to the lecture (CD - Rom of documents, Internet,...), helping students to understand and expand their knowledge, and at the same time show their emotions, attitudes before the event and the phenomenon of historical studying. In particular, teachers can also let images appear or disappear according to the pedagogical plan without interrupting, taking as much time as when using traditional means of teaching. Thanks to that, the path to form prejudice. Historical formula for students will be faster, more efficient and solid.

However, if the teacher shows signs of abusing techniques in lectures in any form, it will be counterproductive. For example, showing too many images on the e-board does not match the core knowledge of the article, accompanied by fussy effects, complex sounds, flashy colors, all limit learning, reducing the focus of students. Although the historical screen channel is enlarged on the screen, teachers cannot use methods to

describe, apply the principles of teaching, or exchange - talk (based on the advantages of each method), together with language expression, that image will become expressionless. At that time, historical knowledge "hidden" in each picture is still a mystery to students, if they know, it is just "riding a horse to see flowers".

The advancement of science and technology makes the role of teaching means increasingly expanding, actively supporting and even in some cases it can change the function of teachers, but it is wrong to think that IT can completely replace the position of the teacher in the teaching process. Therefore, this requirement clearly shows that teachers are the decisive factor to improve the efficiency of lessons when applying IT. IT must be closely combined with many other factors and teaching methods, in order to complement and support each other to improve.

Second, teachers must master the "3 D principle" in teaching history when applying IT. The "3D principle" when applying IT in teaching history is that teachers must know how to apply modern teaching methods and facilities at the right time, right place and right time.

Timely is choosing the appropriate time to use, suitable to the content of knowledge and typical teaching methods, as well as the needs and psychological state of students. That is, teaching any relevant knowledge unit, the teacher clicks the object to appear, then instructs the students to exploit knowledge. To implement the principle of "at the right time", teachers should use "Trigger and Timing techniques" when designing electronic devices, because it allows objects to appear and disappear according to the teacher's intentions. "Right place" is the arrangement of the space, the appropriate display screen position so that all students in the class can observe and hear clearly, creating favorable conditions for them to actively participate in awareness. For example, students must not sit near the screen less than 2m and more than 7m away, not sit in the position more than 45 degrees from the perpendicular line of the screen.

"Right degree" is the requirement for the amount of knowledge sources (text channels, video channels, audio channels) and the amount of time that teachers use in the teaching process must be suitable to the comprehension level as well as psychology of each subject statue of students. In

history teaching, the requirement of "rightness" is closely related to the "fit" of the students. In fact, in some lessons, history has many audio-visual materials (such as World War II, August Revolution in 1945, Dien Bien Phu Victory in 1954), many teachers often make mistakes in the design and present a lot of images for students to observe, turning class time into showtime and movies.

### **Requirements on Teaching method when Integrating IT in History**

Firstly, the application of IT in teaching in general and history in particular must create favorable conditions for students to acquire basic knowledge in the most positive direction.

Teachers and many good teachers of history all affirm that IT has many advantages in organizing and guiding students to acquire new knowledge, especially with types of lessons using schemas, diagrams, pictures and documentaries. Because, in LS learning, the fastest and most effective way to form knowledge for students is always associated with visualization. However, the teacher does not keep inserting a lot of pictures into the lecture, and then clicking the mouse, the students absorb and memorize knowledge well, but it is important to study carefully the lesson objectives to choose the content and teaching method. well suited. The idea of pedagogy and design of text channel slides, picture channels must be suitable for students. In fact, many teachers in high schools did not comply with this principle, mostly due to subjectivity, did not attach importance to students as "the center of teaching - learning activities".

Applying IT in teaching is a "double-edged sword", so teachers must be cautious in processing information, do not put in lectures documents that are easy to distract students' thoughts. For example, in each section of the lesson, on the basis of determining the knowledge standards that need to be provided to students, the teacher gives out pedagogical ideas, selects the picture channel suitable for the purpose of use (only for illustrative purposes. or inculcate knowledge), finally design on the computer by purpose, with logic. On each e-learning slide, if necessary, it will create links to images, sounds, documentary videos (using Hyperlink or Triggers techniques), in order to improve the effectiveness of interaction

between teachers and students and teaching facilities.

In addition, choosing the appropriate effect for the objects on each slide (according to the intentional plan of the teacher) also creates an element of surprise, attracting students to actively follow the lecture. In order to improve the effectiveness of instructing students to exploit the picture channel, teachers need to combine design of the word channel (the caption of the picture, or the elusive question) to stimulate observation, thinking and answering. Because, when teaching in class, the electronic training device is both used to provide information and a means to help teachers organize cognitive activities, creating conditions for students to actively participate in all stages of the teaching process. Finally, depending on specific pedagogical conditions and situations, teachers have a flexible treatment plan for each key knowledge unit, it is not necessary to "click" to appear all the slides. design at home. For example, if time does not allow, the teacher can skip the slides with linked illustrations, because it has little effect on the understanding of basic knowledge of students.

Second, when applying IT in teaching history, teachers must create favorable conditions for students to actively take note of the outlines, contributing to well implementing the lesson objectives.

The theory and practice of applying IT in teaching subjects are affirmed: there is no sample training board and e-learning board for a specific lesson, even with good teachers or experts who have used IT proficiently DH. Because, in addition to the basic requirements specified by the program, the historical lessons with IT application also depend on many other factors, such as teaching conditions, students' subjects, especially acting pedagogical situations. out in class (may be beyond the teacher's expectation). Therefore, when applying IT in history teaching, the principle of facilitating students to actively follow up and take full notes is highly valued by subject educators. In fact, most teachers make this mistake, often standing next to the projector, paying attention to the performance on the screen, which greatly affects the quality of lessons. If the application of IT in history teaching: only teachers actively "interact" and students are passive and cannot "interact" (I.e teachers - students interact

together), it will be no different from students who are "spectators watching cartoons".

Therefore, the application of IT in history teaching must demonstrate the multi-dimensional interaction between teachers and students with teaching facilities, creating favorable conditions for them to participate in the process of acquiring knowledge, actively monitoring and recording, copy the homework.

### **Requirements for Teachers' Concept and Preparation**

First of all, teachers must have the correct conception when using modern technical equipment and means in teaching - learning history.

The teaching process in general, the history subject in high schools in particular has many factors that influence, interact and affect the quality of the subject (such as objectives, content, methods, educational environment), in which technical means and equipment are an important, but not decisive factor.

Looking at the diagram, the application of IT in teaching is just concretizing the measures of using visual aids (here is the use of modern teaching equipment and technical means), in order to "transmit" knowledge to students. Any lesson has visual aids, it becomes an intermediate factor, a "bridge" between teacher and students, contributing to improving lesson efficiency. But how students can promote positivity and initiative in the process of acquiring knowledge must be through the role of the teacher.

When applying IT in history, teachers should conceive and use them as a visual means to support other teaching methods such as description, narration, specialization. At that time, IT is both a source of knowledge. It is both an important tool for teachers to illustrate the event, make the lecture better, and more attractive to students. If teachers do not have correct conception of IT application in teaching, it is easy to have defects in technology abuse. In practice, a part of teachers have absoluteized the role of technology elements, mainly presenting the slide of text channels, or images, forcing students to "see". In addition, many teachers with many years of working experience are "indifferent", even

opposing the application of IT in teaching subjects.

Absolutely the role of technological factors in teaching is not right, "indifferent", the more wrong the objection, because "there will be a fundamental change in education in the early twenty-first century due to the influence of IT. The IT era requires each teacher to have a change in mindset, bravely learn to further improve his or her professional qualifications, methods and pedagogical skills. If teachers only rely on experience to teach in the old ways, refuse to update the progress of science and technology, they will become outdated, unable to meet the requirements of modern education. But, if using modern teaching facilities (computers and multi-purpose projectors) but only to replay content as in textbooks, it is not necessary.

Second, teachers must have good preparation, regularly improve knowledge, learn from friends and colleagues' experiences.

There will not be a successful teaching period of a teacher if it is not invested and well prepared from lesson planning to implementation in the classroom, especially with IT-supported lectures. Good preparation at home not only helps teachers consolidate and master specialized knowledge, practice skills, manipulate the use of technology, but also master and solve possible pedagogical situations. when teaching in class. Teachers regularly improve knowledge and learn experiences about IT application methods from friends and colleagues is also an important factor to improve the quality of history teaching, associated with the sense of innovation and improvement of teaching methods. For teachers of History, this requirement is even higher due to the specific characteristics of the subject, because "not everyone who knows history can teach it well, and not everyone who can compose music will become singers".

Finally, teachers must know to identify the historical lessons that have many advantages in applying IT, in accordance with the school's facilities.

### **Discussion**

In the history program in high schools, not all lessons are easy to teach for teachers, or just applying IT in teaching is called innovation. In our opinion, teachers should only exploit the

advantages of IT when teaching lessons where the content of historical knowledge is necessary using visual aids, but the traditional media cannot show, or is less likely to perform. show. For example, if the lesson has internal knowledge reflecting the natural and social conditions associated with the formation and development of major civilizations in the world, countries and nations, the teacher will use the maps, pictures, documentaries, comparison tables, to design and display images on digital slides. Or, lessons with knowledge content about wars and revolutions, teachers use character portraits pictures, documentaries, electronic textbooks, knowledge diagrams - Graph, year tables, data tables, to design and display images on digital slides.

Currently, although having been invested in modern teaching facilities and equipment, many high schools across the country have not yet fully met the conditions for teachers of IT application subjects. Therefore, in addition to the basic requirements mentioned above, teachers must also pay attention to practicality and suit the conditions allowed by each school. If we consider the lessons with IT application, but its teaching effectiveness is only equivalent to using traditional teaching means, teachers are not necessarily applied. Or, it is wasteful to use modern teaching means only to replay text channels in textbooks, to illustrate images for students with fun. Instead, teachers should exploit the advantages of traditional teaching methods such as description, profile, characterization, explanation, conversation exchange.




### Conclusion

Generally, in the development trend of modern education, the integration of information technology in teaching in general, and history in high schools in particular will make an important contribution to fundamental and comprehensive innovation of education. Vietnam. However, this application cannot be arbitrary in the style of "taking a replacement machine", but must know how to exploit its strengths and overcome its limitations. Mastering the requirements when applying IT integration in teaching is concretizing our point of view above.

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	Associate Professor, Advanced Lecturer Nguyen Manh Huong is currently a lecturer at faculty of History, Hanoi National University of Education. His main research directions are pre-service and in-service teacher training; teaching methods of history; using technologies in teaching. Relating to his research area, he has written and published over 80 books, over 80 articles in prestigious journals and proceeding of international conference and 5 articles published in international journals. E-mail: nmhuongsphn@gmail.com
	PhD Nguyen Van Ninh is currently a lecturer at faculty of History, Hanoi National University of Education. His main research directions are pre-service and in-service teacher training; teaching methods of history; using materials in teaching. Relating to his research area, he has written and published over 30 books, over 40 articles in prestigious journals and proceeding of international conference (3 articles published in international journals). E-mail: nguyenvanninh27@gmail.com
	Associate Professor, Advanced Lecturer, Nguyen Thi The Binh is currently a lecturer at faculty of History, Hanoi National University of Education. His main research directions are pre-service and in-service teacher training; teaching methods of history. Relating to his research area, he has written and published 52 books, over 48 articles in prestigious journals and proceeding of international conference (01 article published in international journal). E-mail: thebinhsphn@gmail.com
	PhD Nguyen Thi Phuong Thanh is currently main lecturer at faculty of History, Hanoi National University of Education. His main research directions are pre-service and in-service teacher training; teaching methods of history. Relating to his research area, he has written and published 22 books, over 18 articles in prestigious journals and proceeding of international conference (1 article published on international conference in English). E-mail: phuongthanh2007@gmail.com





PhD Nguyen Thi Bich is currently advanced lecturer at faculty of History, Hanoi National University of Education. His main research directions are pre-service and in-service teacher training; teaching methods of history; assessment in teaching history. Relating to his research area, he has written and published 32 books, over 26 articles in prestigious journals and proceeding of international conference (1 article published on international conference in English).

E-mail: bichnt@hnue.edu.vn