

EDUCATING PATRIOTIC TRADITIONS FOR HIGH SCHOOL STUDENTS THROUGH THE HERITAGE OF VIETNAMESE SCIENTISTS

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Abstract

In the process of building and defending the socialist Vietnamese Fatherland, preserving and promoting national traditions, including patriotic traditions, are important and cross-cutting tasks. At the high school level, teachers mainly carry out the task of educating students in patriotic traditions through the form of classroom teaching, based on the knowledge available in textbooks, yet do not know how to exploit them and other valuable documents (historical relics, cultural heritages, heritages of scientists) effectively. Based on the method of documentary research and practical investigation, this study focuses on analyzing the potential of traditional patriotic education for high school students through the legacy of Vietnamese scientists. It also proposes some measures to organize and implement this educational method. The results show that the heritage of Vietnamese scientists is a part of the Vietnamese cultural heritage, having great scientific value and education orientation, especially patriotic qualities for the young generation. When this material is used into studying in high school, it can contribute to enriching lecture materials, actively supporting teachers to organize teaching and learning activities at school in the context of reforming Vietnam's general education program.

Keywords: Tradition, patriotic traditional education, cultural heritage, heritage of scientists..

INTRODUCTION

In the context of international integration, the preservation and promotion of national cultural identity in general, and traditional education for the young generation in particular will make an important contribution to the performance of building, developing and preserving national culture. Among the fine traditions of the Vietnamese nation, the patriotic tradition is the most characteristic, prominent and pervasive feature in the Vietnam's process to build and defend the country (Nghiem, 2009, p. 75). Traditional patriotic education is a task that should be performed regularly for society, especially young people (Nguyen, 1994, p. 9). Vietnamese ancestors had many valuable experiences to educate the patriotic tradition for the younger generation. In Vietnam's General Education Program (2018), the Ministry of Education and Training of Vietnam identifies

five qualities and three groups of competencies that need to be fostered for students, in which the formation and development of quality patriotism is a compulsory content, throughout at all three levels of education: elementary, middle and high school.

Recently, due to changes of the world situation and Vietnam's development, the concept of patriotism of the young generation has changed relatively (Bui, 2009, p. 329). Traditional patriotic education activities have been organized extensively. In this article, we refer to the education of patriotic traditions through a new type of heritage that has been interested in recent decades in Vietnam - the heritage of scientists.

LITERATURE REVIEW

Each nation has its pride, national respect and patriotism. Topics of patriotism and patriotic education for future citizens have been studied in many countries. Primoratz (2002, p. 10) proposed patriotism or love for one's country, involves a special concern for one's country and compatriots. While patriotism certainly involves beliefs about and feelings for one's country, the touchstone of one's patriotism is what one is prepared to do for it. Ladson-Billings (2007, p. 19) argues that "Patriotism is not what you say, patriotism is what you do". Nathanson (2002, p. 114) generalizes four expressions of a patriot: having a special affection for the country, showing a sense of responsibility for the country, acting for the country, and being willing to make sacrifices when the country needs it. These expressions become important elements that make up the unique cultural identity of each country. People's patriotism can be judged by their acts of love for their country; school often indoctrinate respect for patriotic actions (Loewen, 2007). Education for patriotic citizenship is not usually or effectively conducted by teacher and class (Haynes, 2009, p. 374). A common and sometimes effective means to educate for patriotic citizenship is the presentation of exemplars.

In Vietnam, there have been several research projects and studies on traditional patriotic education of the Vietnamese nation for teenagers and especially for high school students. Nguyen (1994) conducts a research project namely "Learning about traditional patriotic and homeland defense education activities in the nation's history" as part of the State Science Program KX-07: "Building a sense of national defense in the education of Vietnamese people today". This research analyzes Vietnamese patriotic tradition, sense of national defense, and introduces the forms of patriotic education, builds the sense of national defense of Vietnam from the 10th century to 1930. Nghiem (2009) completes research namely "Educating patriotic traditions for today's young generation". The research's results are used for teaching in high schools, pedagogical universities, especially focusing on Subjects of History, Civic education and Team work. He exploits the content of the nation's patriotic tradition necessary for educating young generation. He also mentions and analyzes

methods of communication education for the young generation via teaching subjects and internal and external learning activities. Notably, in this monograph, information about 34 typical patriotic examples of Ho Chi Minh era (four of them are scientists) has been introduced.

There are many other articles about traditional education for some historical events and figures. They include Tran (2002) with "Exploiting patriotic traditional content through the national history course to educate students"; Nguyen and other authors (2021) with "Educating students to remember the leadership role of the Party and President Ho Chi Minh in the national liberation movement (1939-1945)". In addition, in teaching History, Geography, Citizenship Education, Literature... at high schools, teachers also regularly integrate the patriotic tradition of the Vietnamese nation in lectures for students.

In 2003, the Ministry of Education and Training coordinated with the Ministry of Culture, Sports and Tourism of Vietnam to issue guiding documents to use cultural heritage in teaching in high schools to enhance educational effectiveness, to foster students' sense of heritage preservation, and to promote national traditions. Nghiem (2018) completes a work "Teaching and developing the capacity of high school history subject" to introduce methods of using heritage to develop students' capacity. Duong (2019) in "Legacy and heritage education for high school students" analyzes the current situation of heritage education in several high schools in provinces of Thai Nguyen, Lang Son, and Lao Cai. Besides, Nguyen (2017) researches "Organizing local history lessons at historical sites for grade 12 students in high schools in Nghe An province"; and Nguyen (2017) performs a study namely "Educate students to preserve and promote the value of the cultural heritage of the Mekong Delta in teaching History at local high schools according to innovation requirements".

In the international conference namely "Methods of using biographies of famous people for training and scientific research in Asian countries", scientists and educators have affirmed the need to study scientific celebrities, scientists to teach students. Dinh (2003, p. 15) emphasizes that each ethnic and nation have their own cultural celebrities and outstanding scientists and technology. Through

understanding their lives and careers, we understand more deeply their country.

Recently, researchers at the Center for the Heritage of Vietnamese Scientists analyze the value of the heritage of Vietnamese scientists. Tran (2020) with “Educating life values for the young generation from the heritage of Vietnamese scientists” proves the educational potential of the scientist's heritage and proposes some forms of education from the scientist's heritage into the curriculum of high school students.

In conclusion, although there has been research on traditional patriotic education and education from cultural heritage with many different forms, until now there has been no intensive research on patriotic traditional education from the heritage of scientists. This research wants to contribute a theoretical basis and propose some specific teaching forms to exploit this kind of heritage.

METHODOLOGY

To complete this research, the author combines two main groups of research methods besides other supplemental researching methods. They are:

- 1- Theoretical research (based on documents related to cultural heritage, documents on psychology, education, theory of teaching History subject);
- 2- Practical research (through visiting, attending classes, learning about students' perceptions of the Vietnamese patriotic tradition, etc. to get practical information).

In addition, we also apply integrated research methods such as analytical method, generalization method, historical method, logic... At the time of implementing this research, the Vietnam's General Education Program in 2018 is applicable only to grades 1, 2 and 6. From the academic year 2022 - 2023, the 10th grader will start studying this program. Thus, in the school year 2021 - 2022, high school students do not have new textbooks as they are still under the General Education Program in 2006. As a result, the research has not conducted pedagogical experiments according to their suggestions in the article. It will be continued in the following research to

clarify and experiment the research issues proposed in this study.

RESEARCH RESULTS AND DISCUSSION

4.1. The concept of the heritage of Vietnamese scientists

The Conventions of the United Nations Educational, Scientific and Cultural Organization refers to “heritage” including tangible cultural heritage (monuments, buildings, monuments, etc.), natural heritage (UNESCO, 1972) and intangible cultural heritage (traditions, performing arts, social practices, etc.) (UNESCO, 2002). The perception of UNESCO's heritage is changing in response to the growing need to preserve and access rare and endangered documentary heritage in many countries and regions around the world. Accordingly, in 1992, UNESCO initiated the Memory of the World Program to recognize the valuable documentary heritage of international, regional and national importance, and at the same time draw the attention of the world to the preservation of collections of rare documents and to the facilitation of their preservation and access (UNESCO).

Besides, from decades of experience in researching and teaching heritage at undergraduate and graduate levels at the University of Plymouth (UK), Howard (2003, p. 1) argues that broader concept of heritage is everything people want to save. He argues that the areas of heritage include: monuments, people, activities, artifacts, monuments, landscapes and nature. Worth mentioning, human heritage is the root of all heritage values (Ibid, p. 94).

Increasingly, heritage is understood more broadly, not just as tangible and intangible heritage as UNESCO's simple concept. Rodney Harrison asserts that we live in an era where heritage is ubiquitous. He defines heritage as everything, from constructions to cooking styles, to songs, and what belongs to an individual, ethnic or religious (Harrison, 2013, p. 14). And heritage is not something we passively receive from our ancestors, it is something we enjoy today and hope our descendants will have access to in the future (Ibid, p. 207).

Since the second half of the twentieth century, the concept of heritage in general and cultural heritage in particular, has changed significantly. Recently, that change has been accompanied by the emergence of new heritage (natural, industrial, technological, aeronautical). Scientific heritage can be considered as one of these new types of heritage (Lourenco & Wilson, 2013, p. 746). They are products, scientific achievements, or scientific research instruments in university museums or national collections. Exploiting the stories of scientists, inventors and technicians to help understand this heritage has been carried out (Ibid, p. 751).

History is created by people, each individual in many different national and ethnic community groups is the agent of history. In that flow, each field from economics, politics to culture, education, and science has its origins and development process, associated with the people operating in each of those areas. This is also true for the history of science. Since the 1980s, in France, there have been memorials for the community of scientists in many forms. Since then, people have been interested in preserving tangible heritages such as paper documents, scientific instruments. It is the scientific community that thinks that preserving their heritage is an act of gratitude to their predecessors and to develop the scientific and technical culture of the present and the future (Soubiran, 2008). Through the collections of scientific heritage in museums of several universities such as Cambridge, Oxford (UK), Pavia (Italy), Harvard (USA), researchers have realized that this is a key source of information for understanding the history of science (Taub, 2003). Currently, various heritages of scientists such as Albert Einstein , Marie Curie , or Thomas Edison , have been preserved and introduced to those interested in diversified ways. The opening of museums, galleries about their lives and careers, and best-selling books about them are testaments to their influence on generations to come.

In Vietnam, the study of the life of intellectuals in general, Vietnamese scientists and scholars in particular, has been attended and mentioned in many books such as Tran Huu Tuoc - life and career , Professor Nguyen Xien. – life and career , Nguyen Van Huyen – A treasured and beautiful example , Notably, journalist Ham Chau spent most of his time researching intellectuals and

launched the project about several famous Vietnamese intellectuals. He introduced 56 intellectuals who are scientists, doctors, professors with many contributions to the country (Ham, 2014). Thereby, researchers have realized the importance of scientists and the need to study them.

In addition to that, museums and exhibits about scientists are also gradually appearing in Vietnam, such as the Alexandre Yersin Museum , Ethnologist Tu Chi display at Vietnam Museum of Ethnology , Nguyen Van Huyen Museum . Especially, the birth of the Center for the Heritage of Scientists and Scholars of Vietnam (MEDDOM) has brought a new perspective to the heritage of scientists. Being aware of the valuable history, culture, education, and science of Vietnamese scientists and scholars, for more than 13 years (since 2008), MEDDOM has collected more than 800 documents and artifacts along with thousands of minutes of audio and video recordings of nearly 1,400 scientists and scholars of Vietnam in various fields, from natural science and social science to applied science and technology. Many scientists have passed away after handing over documents and artifacts to MEDDOM to be preserved (Nguyen & Tran, 2018, pp. 8-9).

MEDDOM has established the concept of the heritage of scientists and scholars of Vietnam as a foundation for its activities afterward. Accordingly, for a long time, our society were not fully aware of the heritage of scientists and scholars, believe that a scientist's legacy is published and announced works. With MEDDOM, the scientist's heritage includes both tangible and intangible heritage. Their legacy, both tangible and intangible, can be considered an invaluable resource. Tangible heritage is understood as documents and artifacts such as notebooks, manuscripts of articles, manuscripts of books, diaries, letters, photographs, documents, audio recordings, video recordings of the learning and research process, laboratory instruments... of scientists or related to scientists. In particular, the stories in their memories or those of friends and colleagues about them, in other words, intangible heritage also help to understand the life of scientists, broadly the history of development scientific development in Vietnam (Nguyen & Tran, 2018, p. 8). When studying the legacy system of scientists, the history of Vietnamese sciences

can be seen from many different angles, and generations of intellectuals have been trained, trained and devoted (Thu, 2015, p. 31).

According to data from the Ministry of Science and Technology, there are currently more than 70,000 Vietnamese scientific researchers, including hundreds of prestigious and internationally recognized scientists. Vietnam's science and technology field has gradually affirmed its driving role in socio-economic development (MST, 2021). That researching collecting, and promoting heritages of Vietnamese scientists and scholars will be valuable, not only to understand Vietnam's science history but also the S-shaped country's culture, history and traditions.

4.2. The legacy of Vietnamese scientists in the education of patriotic traditions for high school students

In the history of Vietnam, scientists - elites in society have contributed significantly to the development of academic, scientific, and technology according to the fields they dedicate to, broadly to the economy, society, and culture of the country. Depending on specific historical circumstances, in wartime or peacetime, each scientist shows patriotism and responsibility for the country in their own and very diverse ways.

Scientists themselves and their legacies are the convergence of good values of personality, quality, spirit, successful learning and research methods of the previous generation to pass on to the next generation. The education of patriotic traditions through the heritage of scientists and scholars has many positive effects because they are practical examples and concrete stories, affecting the psychology and emotions of students, especially students in the stage of shaping personality, qualities, creating values for themselves. The universal life values of humanity are expressed in many different aspects in Vietnamese scientists and scholars: love for each other, love for peace, love for freedom... These are also human qualities in the new era, which the Ministry of Education and Training of Vietnam is aiming to foster for students. From that valuable feeling, students will form a sense of responsibility to live, study and contribute for each other, for the country.

With the love for the homeland, which is the love for the people, the village, and all that belongs to the place where they were born, the

patriotism of scientists and scholars of Vietnam is prominently shown in their diligence, creativity, and constant learning, overcome difficulties, dare to think and do in study and research to gain achievements and contribute to the country. Visiting the exhibition of the Ho Chi Minh Prize of Vietnamese scientists and scholars with the theme "Science: creativity and dedication" organized by MEDDOM in Cao Phong (Hoa Binh), viewers will see many educational values through stories and memorabilia here. Prof. Dr. Do Tat Loi (Pharmacy) had a burning intention to produce medicines from natural plants according to modern methods since he was a student. He participated in the wars against the French, then against the US, and at the same time constantly researched and prepared medicines to serve the army and the people. Whenever and wherever he struggled to find the way and aim for the right position for oriental medicine. He has diligently researched, gathered, and released the project "Vietnamese medical plants and herbs". With the determination to conquer rivers, Prof. Dr. Truong Dinh Du (Irrigation) and his colleagues, dared to think, dare to do, to create a breakthrough in the technology of constructing river-blocking works with clusters of architects: "Blocking the river, pier dam, and barge dam". Since 1996, this technology of pier and barge dam has been applied to the construction of hundreds of projects across the country, typically: Thao Long dam (Hue), Dinh river project (Ninh Thuan), Hien Luong dam (Quang Ngai), Cai Lon - Cai Be system (Kien Giang), etc, reducing costs by 40% compared to traditional methods (MST, 2017, p. 294).

The patriotism of scientists and scholars does not stop there, they dedicate themselves and are willing to sacrifice personal interests for the development of the country. Also in the above display, the story of Prof. Dang Van Ngu (Medicine) made a strong impression on viewers. Denied the bright future in Japan, at the end of 1949, Prof. Dang returned home to join the war, trying to find a way to produce penicillin in poor conditions. In the 1960s, to catch mosquitoes for the research of vaccines, Prof. Dang and the research team had to lay their skin bare as a "bait" for the mosquito. Although knowing this method can get them malaria, no one hesitates and eagerly catches mosquitos every night. In early 1967, he decided to enter the southern battlefield to study and directly cure

malaria for the staff and soldiers. To build strength for the trip, he learned to wear rubber sandals and marched a few kilometers a day with a brick backpack on his shoulder. And during that trip, he died after a series of B52 bombs dropped by American aircraft on the battlefield of Thua Thien - Hue, his hometown. With the system of survey - classification - mapping of Vietnamese soil by Prof. Dr. Le Duy Thuoc (Agriculture) and many other scientists, or research on geological mapping of Vietnam by Engineer Tran Duc Luong and Engineer Nguyen Xuan Bao (Geology), together with hundreds of geologists, experiencing hardships on the research road because of bombs and mines, unwholesome environment, dangerous terrain, even their life, has become very normal with them.

The diligence, creativity, and overcoming difficulties of scientists and scholars come from the practical requirements of the country; they voluntarily comply with all assignments of the Party and the State to complete their tasks. The documents of the first cadre delegation sent by the Party and Uncle Ho to the Soviet Union to study in 1951, such as diaries, letters for families, and photos and documents at the Soviet Union strongly reflect that spirit. A member of the delegation, who later became a famous architect - Architect Ngo Huy Quynh (Construction) received the news that he was sent to study in secret, meaning leaving behind his sick wife and hungry children in the war zone but still executing the assignment. In his diary while studying in the Soviet Union, on the very first page he wrote in large capital letters: "The Party sent to study in the Soviet Union" and began to record the story of his new days away from his family to study abroad. The feeling of missing his wife, loving his children, and not knowing what his family's situation was like tormented him for a long time, but along with that, his determination to study according to the arrangement of the Party Central Committee was still paramount. In the notebook before leaving, another member - later Assoc. Prof, Brigadier General Le Van Chieu (military) neatly wrote the words in red and blue pencil "Always be positive" as a promise of determination (Tran, 2012, p. 23).

With their minds and hearts always towards the country, the patriotism of Vietnamese scientists and scholars shows a spirit of pride, national

pride, and concern with practical problems. In the Nguyen Van Huyen museum, the story and memorabilia about the love of family, homeland, and country are clearly shown throughout the life and career of the longest-serving Minister of National Education in history. In particular, there is a detail that is rarely known: before working on the thesis "Hát đối đáp của thanh niên nam nữ" (Alternate chanting between male and female of Annam) to enroll for a doctorate at Sorbonne University, he had a bold intention, the refusal notice of Mr. Nguyen Van Huyen to do a dissertation on the topic of France's relationship with Indochina from 1800-1880, recently discovered in the French National Archives, revealed his love for the nation since he was very young. Nguyen (2020) explained his father's intention that "It can only be explained by the heart and consciousness of a patriot who wants to find the source of the problem and why Vietnam became a colony?". Unfortunately, that idea was not implemented because the French did not allow him access to the archives, so he turned to research on Vietnamese culture and civilization. After the August Revolution in 1945, following the patriotic call, he and his family abandoned the city life and moved to the war settlement. The faded notebooks and rare black and white photos in the Museum prove his tireless 30-year activities, contributing to the construction of Vietnamese education, training people with ideals and qualifications, to answer the fight and victory over the French, the American (Ham, 2014).

Not only that, the patriotism of scientists and scholars of Vietnam is also reflected in the spirit of humanity, peace, freedom and cooperation. Typically, the notebooks, diaries and letters from 1951 to the late 1970s by Prof. Ton That Tung (Medicine) with American, German, and British scientists, which are being archived at MEDDOM. This can be considered as an invaluable collection, reflecting national pride, the desire for peace and international cooperation to bring happiness to the Vietnamese people. Studying the diary of his first trip to the US in May 1979, we found that in the places he visited, Prof. Ton That Tung did not miss the opportunity to "attack" in terms of science and journalism on the dioxin problem. Many conversations about this burning and humanitarian issue have been held in states, universities, and even personal exchanges.

Along with his active efforts in the National Committee to investigate the consequences of the US chemical war in Vietnam, he became a pioneer scientist for research on the effects of dioxin in Vietnam (Nguyen, 2012, p. 251).

When explored in many angles, the patriotism of Vietnamese scientists and scholars is diverse and surprisingly shown. In a limited scope, the article only points to a few of thousands of stories by Vietnamese scientists and scholars to demonstrate that patriotism can transmit positive energy to the young generation. The life stories and legacy of Vietnamese scientists and scholars can be considered as a special material in exemplary education.

4.3. Traditional patriotic education methods for the students through the heritage of scientists and scholars of Vietnam

Traditional patriotic education activities for students today in Vietnam are often integrated into essays, poems, or history and civics lessons spanning all levels of schooling. The 2018 General Education Program is currently being implemented at the primary level (grade 1, grade 2) and lower secondary level (grade 6). For the upper secondary school level, from the school year 2022 - 2023, students in grade 10 will just start studying and use new textbooks. Therefore, based on the current educational program (Ministry of Education and Training issued in 2006), we propose a number of measures to exploit the heritage materials of Vietnamese scientists and integrate them into teaching subjects such as Literature, History, Geography, and Citizenship Education... to improve the patriotic traditional education for students. At the same time, teachers can also exploit these materials to prepare for teaching the general education program in 2018 (applied from the school year 2022 - 2023).

Firstly, integrate and associate the heritage of Vietnamese scientists and scholars with the subject knowledge content (History, Literature, Citizenship Education, etc.) in the classroom hours or at the museum, local traditional house. In the curriculum lessons, teachers will enhance storytelling combined with conversational exchange about the examples of sacrifices and dedication of Vietnamese scientists to the country. In the era of technology 4.0, teachers need to promote their role as innovators, creating ways to teach when applying

information technology, spending a certain amount of time to show short films about the examples of scientists and scholars, then organize for students to exchange and discuss the lessons and values drawn from the stories of Vietnamese scientists and scholars, etc.

Secondly, considering the heritage of scientists and scholars of Vietnam as a living material for educating patriotic traditions for students. Teachers can organize experimental learning activities a variety of extracurricular activities that combine indoor education and outdoor study (introduce or organize tours to museums, local exhibition houses, virtual museum, etc.). Depending on the conditions of each school and locality, teachers may have options of methods to organize such as:

- + Developing a teaching topic for the project: "Notable scientists and scholars of Vietnam in the military", "Notable scientists and scholars of Vietnam in Medicine", "Notable scientists and scholars of Vietnam in the education", etc. Through each project topic, students will develop their research capacity and creativity. Through searching and reading information about Vietnamese scientists and scholars from various sources, students can create outcomes such as presentations about the scientist's patriotism or paintings, movie script, to tell the story of the scientist's dedication.

- + Organize a historical gala with the theme "I am proud to be a Vietnamese" with role-playing activities, theatricalizing a situation/story showing the patriotism of Vietnamese scientists and scholars. Besides, it is possible to open discussions for students: if put in the situation of scientists at that time, what would you do? (for example, in the case of Professor Dang Van Ngu, will you stay in Japan or return home), or as a future citizen, what specific actions will you take to show your patriotism?

- + Visiting, learning, and experiencing at museums about scientists and scholars such as Nguyen Van Huyen Museum, Center of Heritage of Scientists and Scholars of Vietnam, etc. to view documents and artifacts related to patriotic stories and actions of scientists. From there, helping students to form impressions and influence their psychology, emotions as well as actual actions.

- + Reading several portrait books about scientists and scholars for children such as "My way to

science" , "Dr. Dang Van Ngu - patriotic intellectual" , "Mathematician - patriotic intellectual Ta Quang Buu" , "Nguyen Van Huyen - Lifelong ambition" , etc. Through this, students both practice reading skills and reflect on accessible information and stories to form affection, admiration for the scientists and scholars. From there, stimulate specific actions of students using the example of scientists.

+ Meeting, listening to witnesses: a picture is worth a thousand words, when students can meet and interact with the scientist himself or his relatives and colleagues, to listen to stories of memories or experiences, lessons, they will have a deeper impression than just reading or knowing through books. Depending on the school and local conditions, teachers can contact to invite some scientists to interact with students such as the family of Professor Nguyen Van Huyen, the family of Prof. Dang Van Ngu, or Prof. Dr. Truong Dinh Du, engineer Nguyen Xuan Bao who are in good health, etc.

Thirdly, in the 4.0 era, teachers can take advantage of technology and communication channels to build a digital database of scientists' and scholars' heritage and patriotic stories, creating opportunities for students to access and share learning materials anytime, anywhere. Currently, teachers and students can access the media channel of Nguyen Van Huyen Museum or MEDDOM . However, the data sources are quite diverse and not concentrated on these channels, which is a bit difficult to refer to and apply. To facilitate this education, the authors would like to propose the establishment of a community group on Facebook to post and share stories and heritages of scientists associated with patriotic traditions.

Fourthly, scientists and their legacies are not only concentrated in a few large cities such as Hanoi and Ho Chi Minh City. With the spirit of "Heritage is all around us", each local school can find out on its own the notable scientists and scholars in their province. When teachers learn and guide students to learn about local scientists with the guideline: who they are and how they have contributed and devoted to their homeland and country, the heritage will be more relatable to the student, clearer.

To ensure the effectiveness of the above measures, it is required that teachers clearly define teaching objectives, carefully study the

curriculum, textbooks, and requirements for students to choose illustrative materials as well as the most useful way to organize activities. At the same time, organizing activities for students to actively explore and discover the story, without forcing or imposing an example for the promotion of students' ability and proactivity to be effective. In particular, the most important thing is that students need to see their responsibilities in preserving the national historical tradition, making efforts to develop themselves, and actively absorbing human knowledge to become useful citizens for the country.

CONCLUSION

Traditional education in general and patriotic tradition, in particular, seems to be very dull but is very related and lively. Only educating traditional without being dogma, rigid but from specific stories that are exemplary can have a profound impact on students' perceptions, thoughts, and feelings. This stimulates the children's sense of responsibility and action.

The patriotism of the Vietnamese nation manifests itself differently from time to time, but in general, it is the love of the people around, love of the country's nature, love of homeland heritage, industriousness, creativity, overcoming difficulties, dare to think and to do. The heritage of Vietnamese scientists and scholars has an advantage in educating the patriotic tradition because the education comes from impressive and moving stories and has specific evidence. Thereby, students will understand, feel with love, admiration and promote learning, follow the patriotic actions of scientists, be passionate about studying and researching, and dedicate themselves to the country by doing research. many different ways.

The experience of traditional patriotic education in this way in Vietnam can be replicated, because each nation, each country has heritage and human symbols to be proud of. Exploiting educational values and honoring cultural heritage will enrich the identity of each country in the context of globalization.

Reference

- [1] Dinh Quang Bao. (2003). Keynote speech. Proceedings of the International Conference on Methods of using celebrity biographies for training and scientific research in Asian countries. Hanoi National University of Education Publisher. Hanoi.
- [2] Bruce, Haynes. (2009). Introduction to Special Issue: Patriotism and citizenship education. *Educational Philosophy and Theory*, Vol. 41, No. 4, pp367-377.
- [3] Bui Duc Dung. (2009). The current state of patriotism of the young generation today. In Nghiem Dinh Vy (Eds.), *Traditional patriotic education for today's young generation* (pp. 337-356). Hanoi National University of Education Publisher. Hanoi.
- [4] Duong, Q.P., & Do, V.H. (2019). Heritage and heritage education for high school students. *Science Journal of Can Tho University*, 55, 68-73.
- [5] Ham Chau. (2014). *Contemporary Vietnamese elite intellectuals: Some portraits*. Youth Publishing House. Ho Chi Minh City.
- [6] Harrison, Rodney. (2013), *Heritage: Critical Approaches*. New York: Routledge.
- [7] Howard, P. (2003). *Heritage: Management, Interpretation, Identity*. London and New York: Continuum.
- [8] Ladson-Billings, G. (2007). Once upon a time when patriotism was what you did. In J. Westheimer (Ed). *Pledging allegiance: The politics of patriotism in America's schools*, (pp.12-19). New York: Teachers College Press.
- [9] Loewen, J.W. (2007). *Lies my teacher told me: Everything your American History Textbook got wrong*. New York: Touchstone.
- [10] Lourenco, M.C., & Wilson, L (2013). "Scientific heritage: reflections on it nature and new approaches to preservation, study and access", *Studies in History and Philosophy of science*, 44, 744-753.
- [11] Ministry of Education and Training. (2003). *Guidelines for use of cultural heritage in teaching in high school, general education center*. Retrieved from <https://thuvienphapluat.vn/van-ban/Giao-duc/Huong-dan-73-HD-BGDDT-BVHTTDL-su-dung-di-san-van-hoa-trong-day-hoc-o-truong-164811.aspx> (accessed by 27/8/2021).
- [12] Ministry of Education and Training. (2018). *Vietnam's General Education Program*.
- [13] Ministry of Science and Technology. (2017). *Ho Chi Minh Prize and State Prize in Science and Technology*. Science and Technology Publishing House. Hanoi.
- [14] Nguyen Chu Phac. (1994). *Discovering activities to educate traditional loving and defending country of Vietnamese history from the 10th century to pre-1930*. People's Army Publishing House. Hanoi.
- [15] Nguyen Thanh Hoa. (2012). Pioneer in the fight against the dioxin disaster. In Nguyen Van Huy (Eds.), *The Memory Legacy of Scientists, Volume 2*, (pp. 247-252). Knowledge Publishing House. Hanoi.
- [16] Nguyen Thi Duyen. (2017). Organize local history lessons at historical sites for 12th grade students in high schools in Nghe An province. In *Proceedings of international scientific conferences, Training and fostering history teachers to meet the requirements of curriculum and textbook renewal* (pp. 539-548). National University Publishing House. Hanoi.
- [17] Nguyen Duc Toan. (2017). Educating students in the sense of preserving and promoting the value of the cultural heritage of the Mekong Delta in teaching History at local high schools according to innovation requirements. In *Proceedings of international scientific conferences: Training and fostering history teachers to meet the requirements of curriculum and textbook renewal*, (pp. 512-521). National University Publishing House. Hanoi.
- [18] Nguyen, V.H., Tran, B.H. (2018). Center for Heritage of Scientists and Scholars of Vietnam – 10 years of establishment and development. *Cultural Heritage Magazine*, Volume 8, 7-10.
- [19] Nguyen Van Huy. (2020). Interview recording the memory of his father - Prof. Nguyen Van Huyen, archived at the Heritage Center of Vietnamese Scientists.
- [20] Nguyen, M.H., Le, T.T.A, Tran, T.H., Nguyen. K.L., & Vu, T.H. (2021). Educating students to remember the leadership role of Party and President Ho Chi Minh in the national liberation movement (1939-1945). *Journal of Educational Equipment*, 242, 60-62, 90.

- [21] Nathanson, Stephen. (2002). Is patriotism like racism? In I. Primoratz (ed.) *Patriotism*, (pp. 113-20). New York: Humanity Books.
- [22] Nghiem Dinh Vy. (2009). Traditional patriotic education for today's young generation. Hanoi National University of Education. Hanoi.
- [23] Nghiem Dinh Vy. (ed.). (2018). Teaching and developing high school history subjects. Hanoi National University of Education. Hanoi.
- [24] Primoratz, I. (2002). Introduction. In I. Primoratz (ed.), *Patriotism* (pp. 9-23). New York: Humanity Books.
- [25] Soubiran, Sebastien. (2008). "What makes scientific communities think the preservation of their heritage is important?". *UMAC Journal*, 1, 1-8.
- [26] Taub, Liba. (2003). "The history of science through academic collections". *ICOM study Series*, 11, 14-16.
- [27] Thu Ha. (2015). "We wanted to tell history truthfully". *Spark Magazine*, 22, 31-35.
- [28] Tran Bich Hanh. (2012). A brief moment - a turning point in life. In Nguyen Van Huy (Eds.), *The Memory Legacy of Scientists*, Volume 2, 15-19. Knowledge Publishing House. Hanoi.
- [29] Tran Bich Hanh. (2020). Life values education for the young generation from the legacy of Vietnamese scientists. *Vietnam Science and Education Journal*, 30, 1-6.
- [30] Tran Vinh Tuong. (2005). Exploiting patriotic traditional content through the national history course to educate students. In Phan Ngoc Lien (ed.), *Renovating methods of teaching history in high schools: Some topics* (pp. 189-216). Hanoi National University of Education Publishing. Hanoi.
- [31] UNESCO. (1972). *Convention for the Protection of World Cultural and Natural Heritage*. UNESCO Office in Hanoi.
- [32] UNESCO. (2002). *Convention for the Protection of World Cultural and Natural Heritage*. UNESCO Office in Hanoi.
- [33] Vietnam Fatherland Front. (May 27, 2021). "Creating driving force to promote science and technology for breakthrough development of the country". Retrieved from: <http://mattran.org.vn/tin-tuc/tao-dong-luc-thuc-day-khcn-de-dat-nuoc-phat-trien-dot-pha-37934.html> (accessed by 27/5/2021)