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### SOLUTIONS TO DEVELOP VIETNAMESE EDUCATION MANAGEMENT CAPACITY TO MEET THE FOURTH INDUSTRIAL REVOLUTION REQUIREMENTS

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#### Abstract

The era of industrial revolution 4.0 education management staff is particularly important in the role of "leading ship", deciding the direction and speed of innovation of the whole education system. Therefore, it is necessary to develop a strategy to develop the capacity of Vietnamese education managers to adapt to the digital technology, meeting the requirements of basic and comprehensive education innovation. In order to meet the 4.0 revolutionary requirements, the education management staff must converge modern qualities and capabilities such as cooperative skills, critical thinking ability and problem solving skills. , to create motivation, must have an extensive vision, know how to analyze, contact, compare Vietnam education with other education in the world, in order to improve the efficiency of the education system in general, The school in particular, from there, helps education achieve its lofty goals and mission.

Keywords: Capacity, management, education and revolutionary staff 4.0

#### Introduction

The world today is experiencing tremendous changes like never before. The fourth industrial revolution - also known as 4.0 generation industry (CMCN 4.0), has been and will continue to create dramatic changes, affecting every aspect of human life in 21st century. This revolution will deeply affect the global economy and society, including education. It poses urgent problems for education, if education (especially higher education) is

considered a necessary preparation step for learners to confidently step into life, then the school needs to equip a full range of skills needed for them, not only for the present but also for the future. The reception, change to meet and keep up with the impact of the 4.0 revolution is set for the education sector, in which, education managers in particular are issues of necessity and urgency.

#### 1. Revolution 4.0 and management staff capacity

#### 1.1. Revolution 4.0

In recent years, Industry 4.0 has become a hotly discussed topic. Although only a new concept was first introduced at the Hannover Industry Exhibition in Germany in 2011, it was quickly included in the "German High-Tech Strategy 2020", at the level Germany's national level in 2013. Even so, it has attracted the high interest of large and powerful manufacturing countries such as China, Britain, Japan, France and the United States, to become a real choice. and guideline for a new period of transition of industrial production in the world. Since then, the term "Industry 4.0" has been widely used around the world to describe the fourth industrial revolution.

Currently, the industrial revolution 4.0 is taking place globally, based on breakthrough scientific and technological achievements in many fields, with the foundation of the development of some typical technologies, such as Internet connection, the creation of tangible self-control systems, advanced robotics and robotics technology, independent production systems, artificial intelligence technology, data analysis Large, cloud computing combined with specific new technologies such as 3D printing technology, biotechnology, new material technology ... it has a huge and comprehensive impact both economically, socially and spearheaded. education, environment as well as security and defense at all levels: global, regional and national.

#### 1.2. The power of education managers

#### Concept of managers

#### Concept of cadres:

According to the provisions of Clauses 1 and 3, Article 4 of the Law on Civil Servants, 2008: "Officials are Vietnamese citizens, elected, approved, appointed to hold positions and titles in the Party's office. Communist Vietnam, State, central socio-political organizations, in provinces and cities directly under the Central Government (hereinafter referred to as provincial level), in districts, towns, provincial cities (hereinafter referred to as district level), in the payroll and salaried from the state budget, officials of communes, wards and townships (hereinafter referred collectively to as the commune level) are Vietnamese citizens, elected to hold office. according to the term in the standing body of the People's Council, People's Committee, Secretary, Deputy Secretary of the Party Committee, head of the socio-political organization; Commune-level civil servants are Vietnamese citizens who are recruited to hold professional titles of commune-level People's Committees, payroll and enjoy salaries from the state budget. "

Concept of managers:

In a broad sense: "Managers (managers) include all those who participate in the management system and form certain functions, they do not participate directly in the production process."

According to the function of management staff divided into 3 categories: (1) Leadership: The manager in the management apparatus has a certain title appointed by the state. They are responsible to their superiors in directing the activities of their organizations. Their characteristic activity is to make decisions and organize the implementation of decisions; (2) Experts: those who have qualifications in a certain field. The function of learning is to prepare options for leaders to make decisions, in addition they are led to assign tasks to monitor some tasks

according to management principles; (3) Management staff: Their function is to collect, process and communicate initial information; Prepare and form the necessary materials to ensure leadership and professionals run an organization, a certain job.

In a narrow sense: "management officials correspond to the highest leader in the organization." Education managers have the role of executing a large and complex system, and implementing diverse and flexible educational policies to proactively and creatively solve emerging problems. Such as: Management decentralization, social responsibility, mobilizing resources, democratizing education, computerizing management.

#### Capacity concept

There are many definitions of capacity and this concept is attracting the attention of many researchers. According to the common sense, competence is a combination of thinking, skills and attitudes that are available or in the form of potential that can be learned by an individual or organization to successfully carry out the task.

According to author Tran Khanh Duc, in "Researching needs and building a model of training according to capacity in education", the capacity is clearly stated as "ability to receive and use all and effectively human potential (knowledge, skills, attitudes, physical strength, beliefs ...) to carry out work or deal with a situation, a certain state in life and professional labor"<sup>1</sup>

According to author Nguyen Anh Tuan stated in a general way that "capacity is a complex psychological attribute, is the convergence of many factors such as knowledge, skills, techniques, experiences, readiness. actions and responsibilities"<sup>2</sup>

There are many ways to understand competency, but generally speaking, competence will be understood: (1) Human capacity is the product of social development. "The formation of energy requires the individual to understand the forms of activity that human beings have created in the course of social history development. Therefore, human capacity is not only determined by the brain's activities, but first of all due to the level of historical development that human beings have achieved "; (2) the capacity is to "Integrate the unique attributes of personality that are consistent with the requirements of a certain activity, ensuring that the activity achieves results"; (3) the capacity is "subjective or natural ability or condition available to perform an activity" or "The psychological and physiological qualities that make people capable of accomplishing an activity certain with high quality "; Fourth, the capacity is "A set of personal psychological qualities or qualities, which acts as an internal condition, facilitating good implementation of a certain type of activity. Competent people are those who achieve high performance and quality in both objective and subjective circumstances"<sup>3</sup>.

*Thus,* "capacity is considered a combination of the capabilities, qualities, attitudes of an individual or organization to perform an effective task". Competence is an element of personality, so the ability to bring personal imprint is clear, showing the subjectivity in action, formed according to the law of formation and development of personality, in which the human factor Sex, activity and communication play a decisive role. On the other hand, in essence, the capacity is created by the elements: knowledge, skills, techniques, these factors do not exist separately but they are intertwined, intertwined, positively impacting on improve the capacity of education managers.

<sup>&</sup>lt;sup>1</sup> Tran Khanh Duc, Researching needs and building capacity-based training models in education, Topic of National University of Hanoi, code: QGTĐ, 2013

<sup>&</sup>lt;sup>2</sup> Nguyen Van Tuan, Methods of integrated teaching, University of Technical Education City. Ho Chi Minh, 2010.

<sup>&</sup>lt;sup>3</sup> Dr. Nguyen Hong Minh, Industry Revolution 4.0 and the issues raised for the vocational education system, Labor and Social Journal, February 2/2017

The basic competencies of management officers form and develop in the process of living and activities of each person in the social or community environment: "First of all, people with personality, intellectual development, there are some outstanding qualities, at the same time, a person with creativity, independent and sharp thinking that ordinary people do not have, the ability to predict and reason well, solve tasks quickly and accurately, bring high efficiency ". It is also the process of developing and perfecting the personality that takes place throughout life. Education managers at different levels of management are responsible to the higher levels for the whole operation of a sector or a locality. In implementing educational management functions along with qualities and hearts, managers more than anyone must be the ones who have the above abilities. It is the basis for the formation of managerial talents, contributing to the cause of management innovation, improving the quality of education and training to become a reality soon.

#### 2. Developing the capacity of education management staff to meet the revolutionary 4.0

At the 8th Central Conference of the 11th Party, our Party issued Resolution No. 29-NQ / TW "On fundamental and comprehensive innovation of education and training, meeting the requirements of industrialization and modernization in the Socialist-oriented market economy and international integration ". This is the basis for the national education and training system in general and the improvement of the quality of education management officers in particular to conduct comprehensive and thorough innovation.

The development of the capacity of education management officials to meet the requirements of the 4.0 revolution has been reflected in Resolution No. 29-NQ / TW on comprehensive fundamental reform of education and training to meet the requirements of industrialization, modernization in the context of socialist-oriented market economy and international integration. Therefore, the situation of weak education and training has been analyzed over time: "Management of education and training is still weak. Teachers and educational managers are inadequate in quality, quantity and structure; a part that has not kept up with the requirements of education reform and development, lack of enthusiasm, even violation of professional ethics". At the same time, analyzing the causes of the causes of causes is due to: "The delimitation between state management and administrative activities in education and training institutions is unclear. Quality management, inspection, inspection and supervision have not been properly respected". The resolution oriented the renovation of education management in the coming time: "Clearly define the responsibilities of state management agencies in education, training and management responsibilities by sectors and territories of the ministries, branches and localities. Assign state management with the management of education and training institutions. Promote decentralization, improve responsibility, create motivation and initiative and creativity of education and training institutions". In order to educate Vietnam to develop, it is important to improve the capacity of management staff to contribute to improving the quality of training, increasing the competitiveness of human resources in the domestic and regional labor market and international.

The impact of the 4.0 revolution has placed teachers on education management with many new challenges and opportunities. It is the working environment in the context of technology and digitalization with artificial intelligence; Social human resources change; the differentiation of the structure of vocational training in colleges leads to a change in management practices in educational institutions. Therefore, managers and leaders in educational institutions must change their perception of management roles, must train themselves and foster capacity groups to meet the new connection requirements on the platform formula and technology. In order to meet the requirements and requirements of modern education in the context of the industrial revolution 4.0, the education managers are:

*Firstly*, on the goal of training and retraining of cadres, especially leaders and managers at all levels, it is to create competent staff to work in creative and edge environments. paintings. All changes of the school must be aimed at training cadres and learners to acquire new capabilities and skills such as practical review capacity; organize tasks, analyze and synthesize thinking; handling multi-dimensional information etc.

*Secondly*, industrial revolution 4.0 requires changing the training and retraining methods, especially the method of intensive application of information technology. However, the condition for this change in the current training and retraining schools is still very limited, the innovation of teaching and learning methods is still slow; outdated IT infrastructure. Currently, Ho Chi Minh National Political Academy has promulgated and implemented the Regulation on the construction of a standard political school, creating a basis for political schools interested in investing more in infrastructure. In accordance with the trend of recent years, Industry 4.0 has become a hotly discussed topic. Although only a new concept was first introduced at the Hannover Industry Exhibition in Germany in 2011, it was quickly included in the "German High-Tech Strategy 2020", at the level Germany's national level in 2013. Even so, it has attracted the high interest of large and powerful manufacturing countries such as China, Britain, Japan, France and the United States, to become a real choice. and guideline for a new period of transition of industrial production in the world. Since then, the term "Industry 4.0" has been widely used around the world to describe the fourth industrial revolution.

*Thirdly*, the change in school administration ... In the near future, promoting the application of information technology, virtual reality technology in training and retraining of staff will be a prominent trend. For example, students will be instructed by a VR instructor to experience a simulated battle in a history lesson, or they can enter management information of their area of responsibility into their computer system. schools to practice analyzing information, thereby suggesting advisory solutions etc. This impact requires changing the school management method, thereby directly affecting the arrangement of management staff, service and teachers of the school. This team needs to be professional and highly creative, with modern training methods with strong application of information technology. In schools, there will be a change in the size and structure of teachers (both in terms of qualifications and skills); The academic subjects are academic, the theory will gradually reduce the amount, instead will form courses on developing the capacity and skills to organize the implementation of political tasks.

*Fourthly*, the Industrial Revolution 4.0 requires improving the quality of the teaching staff. No matter how modern science and technology is, it is not possible to completely replace the role of the teacher. In recent years, teachers in training and retraining schools have been standardized on professional qualifications, most of them have master's and doctoral degrees. However, practical knowledge and scientific research capacity of a part of lecturers is limited. In the current scientific and technological conditions, students can search for knowledge and skills through the Internet. Therefore, if the lecturer does not regularly improve and improve the level, this impact will gradually lose the leading role of the teacher. This is a significant pressure for the teaching staff in the training and retraining schools.

# **3.** Some solutions to improve the quality of educational managers' staff in the context of industrial revolution **4.0**

In order to improve the quality of training and retraining staff to meet the requirements of industrialization and modernization in the context of the socialist-oriented market economy and the 4th Industrial Revolution, a number of The following solution:

#### Firstly, strong innovation, improvement of education and training mechanisms and policies

Continue to study and complete mechanisms and policies, consistent with the practical teaching staff, staff to go to school, and practice of training and retraining institutions. In particular, for teachers, need to build professional standards, professional skills, pedagogical skills, information technology application skills in the design of lectures, standards of moral and political qualities. To vigorously renew the recruitment, use, training and retraining of teachers in the training and retraining schools. Renovating wage policies for teachers in training and retraining and retraining schools to attract high-skilled, skilled and pedagogical people to work in training and fostering systems. the set.

Renovating mechanisms and policies for personnel training and retraining establishments in general and political schools in provinces and centrally run cities in particular; political schools should enjoy policies like local Party Committees.

#### Secondly, innovating school management, promoting the application of information technology in management

It is necessary to improve the mechanism and managerial apparatus in the training and retraining schools in the direction of clearly defining the functions, tasks and powers, associated with responsibilities; reduce the involvement of governing bodies in school governance; standardize and professionalize management staff. To step up the application of information technology in the management and construction of modern information technology infrastructures in the entire system of training and fostering cadres from the central to local levels, step by step forming data integration center; center of management and administration of staff training and retraining. Building an electronic library, multimedia classrooms, etc., building a friendly, disciplined and wealthy training environment in political schools.

#### Thirdly, renovating training and retraining activities for managers

In order to meet the increasing demands of learners (officials), agencies and organizations employing cadres (Party, State, unions) and working environment (Party and State agencies, agencies) socio-political mass organizations, the training and retraining of cadres must be basically renewed. The training program needs to be flexibly designed in the direction of defining the output standard. At the same time, regular review must be conducted after the training and retraining process; well implement the coordination between the training and fostering schools with agencies and units employing officials. Conducting classification of students according to their specialties, branches, fields of work, titles, job positions to arrange classes and lecturers accordingly. The contingent of lecturers must regularly renew lesson plans, design lectures in accordance with the level of students, in the teaching process need to apply, contact practically appropriately. Innovating examination, examination and evaluation towards diversifying forms of examination and examination; combine quality assessment with scores with assessment of the process, attach importance to the training and cultivation of students. Strengthen practical research activities in the direction of instructors and students to study a certain issue of the locality and grassroots associated with the subject; solve simulated situations that can appear in practice with the knowledge and skills already equipped, thereby improving the cohesion between theory and practice in training and retraining officials.

#### Fourthly, improving the capacity and quality of lecturers and managers

In order to meet the requirements of training and retraining staff in the fourth Industrial Revolution environment, teachers must have new, creative and new qualities through training and self-digging activities. creating and fostering professional knowledge, using modern teaching methods. To do so, must regularly organize training courses on pedagogical skills, scientific research methods, soft skills for lecturers. Trainers must self-study to improve knowledge, form knowledge base sufficiently wide and deep, not only meet their professional fields but

also have the ability to contact and apply for objects of knowledge. Different expertise. This does not mean that the faculty "knows all", "everything knows" but is only the foundation and knowledge base, thus orienting students to know how to contact and apply theory into practical work. mine.

Management staff should also be standardized. This team must have the capacity to work in a highly creative environment and take responsibility for themselves; Dare to propose and implement innovative solutions. Regularly creating conditions for managers and lecturers to study and learn experiences in local and international localities to enhance practical knowledge and working skills.

#### Fifth, promote scientific research, practical research and practical review

In order to improve the quality of training and retraining of cadres, it is necessary to strengthen the linkage between teaching and scientific research and practical review. Central research institutes and institutes with experience and scientific research methods should develop programs to help training and retraining institutions for officials and political schools in provinces and cities directly under the Central Government. through forms of association, research collaboration, review. The research and summarizing products must be applied to the training and retraining of staff, serving the leadership and management of officials in the grassroots political system. It is necessary to build a mechanism for cooperation between research institutes, institutes, schools for training and fostering officials nationwide in scientific research to share experiences, research methods and application of research results in the training and retraining of officials.

#### Conclusion

The 4th Industrial Revolution has made a tremendous impact, creating great turning points for the world education in general and Vietnam in particular. promising new breakthroughs in training activities, changing training objectives, traditional training models by conveying and training completely new knowledge. The development of information technology, digital tools, connection networks and metadata will be good tools and means to change the organization and teaching methods. Educational managers are among those who suffer from this impact faster than by the direct education manager with the fourth Industrial Revolution, education managers must help teachers and students have access to information technology, timely updates and application of the world's latest scientific and technological advances to life, foreign language equipment and soft skills to have the opportunity to compete, opens the door to enter the globalization playground.

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