

THE ADJUSTMENT OF EDUCATIONAL ADMINISTRATORS TO THE IMPACT OF INDUSTRIAL REVOLUTION 4.0

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ABSTRACT

Industrial revolution 4.0 is an indispensable trend of every country desiring to gain development, including Vietnam. Industrial revolution 4.0 has posed many problems that need to be solved in the education and training field, one of which is the competence development of educational administrators. The article analyzes issues related to the competence development of educational administrators in the context of industrial revolution 4.0, expressed through the contents related to required abilities of educational administrators, the basic shortcomings of educational administrators and the underlying causes, and policies to develop the competence of educational administrators.

Keywords: Industrial revolution 4.0, education, education management, educational administrators, change management.

INTRODUCTION

Both practice and theory have proved that the competence of educational administrators is one of the important factors which contribute to the innovation of education and the enhancement in the quality of human resources training, especially under the influence of the current industrial revolution 4.0 (4IR).

METHOD AND DATA

The research is based on the worldview and the methodology of Marxist philosophy, and at the same time uses specific research methods such as analysis and synthesis, logic and history, inductive and interpretation, abstraction, generalization, comparison, comparison and literary methods for research and presentation.

RESULTS AND DISCUSSIONS

Educational administrators over the impact of the industrial revolution 4.0.

The conception of industry 4.0 was first mentioned in the "High-Tech Strategy Action Plan," which was passed by the German Government in 2012. It is a supportive program of the German Federal Government cooperating with top-ranking German researchers and industry associations to improve management and production processes in manufacturing industries

using "computerization." Since then, "Industry 4.0" has been used worldwide to depict the 4th industrial revolution. There have been three official industrial revolutions throughout history that changed the world's entire production and socio-economic conditions. The first industrial revolution was marked by the introduction of the steam engine. The second revolution was the emergence of electricity, and the third one was the explosion of information technology and automation. The fourth industrial revolution is the trend of automation and data exchange in the manufacturing industry. The essence of Industry 4.0 bases on the digital technology platform and integrates all the intelligent technologies to optimize processes and modes of production and highlight that technologies are having and will have a great impact on 3D printing technology, biotechnology, new material technology, automation technology, robotics,... Industry 4.0 consists of cyberspace systems, the Internet of things, and cloud computing. Thereby, people create smart factories with the system of automatically connecting, self-organizing and self-managing machines. This change is also known as the digital revolution because we will be witnessing the process of "digitizing" the real world into the virtual world. Industry 4.0 creates opportunities as well as sets the indispensable requirements for the construction of 4.0 education. Accordingly, education becomes an ecosystem where everyone can study together with connected devices anytime and anywhere. The educational organization becomes an individual creative product-creation ecosystem, with the individual's knowledge and capacity for innovation and creativity. Therefore, before the impacts of Industry 4.0, the educational administrators also need to adjust to adapt to the existing challenges to meet the requirements of society.

We assume that there are, basically, four specific points:

The first point is the ability to apply technology

In the context of the world becoming "flat," the Internet plays an important position and role in education and training and connecting people in a more diversified and richer way,... Therefore, educational administrators with the ability to apply technology into organizing classes, guiding the search for knowledge, and challenging the application of obtained knowledge into practice to solve specific and multiform problems in school environments and practical environments is an objective necessity.

The second one is the adjustment to the development of social networks.

How competent are the educational administrators to manage and effectively utilize social networks to improve school administrations' efficiency? Because practice shows that social networks have had certain impacts and influences on education and training activities in general, including educational administrators in particular. Therefore, to the educational administrators, the ability to suffer the pressure from the media, knowing how to focus on important issues of the school instead of following public opinion, the ability to manage social media crises with negative problems, and the ability to use media as a channel of interaction, communicating with public and parents, and building the school's prestige are also points that need to pay attention and appropriate investment.

The third point is the ability to build a school development strategy.

Under the influence of industry 4.0, there are many changes in education and training activities in the current context. Therefore, if the educational administrators do not comprehend the roles, responsibilities, and subjects as well as distinctive characteristics in the Vietnamese education system, specific regulations of the local education system, they will not be able to communicate about the education policies effectively. Besides, they may encounter difficulties in fulfilling the multiform requirements of society. Therefore, objectively, it is necessary for the educational administrators to have the capacity for strategic management, vision and to comprehend the missions as well as be aware of core values that the school is pursuing, thereby having specific goals that are suitable to each stage and feasible methods to achieve those goals.

The fourth point is to pay attention to change management.

Industry 4.0 has had a rapid and strong impact on the socio-economic. In fact, the "confrontation" of the two principles "not prohibited by law" and "permitted by law" has made many educational administrators encounter difficulties and issues in administration, management, and operating. In addition, there are frequent changes from competent authorities and governing bodies, which also puts educational administrators under much pressure in fulfilling the adjustment if they are not equipped with the psychological preparation and management capacity to catch up and adapt to the changes. Accordingly, the content of change management in school should focus on:

- Managing the change in school resources
- Managing the change in professional activities
- Managing the change about learners (focusing on quantity and quality)
- Managing the change in school culture

Basic parts of educational administrators over the impact of the industrial revolution 4.0

Compared to the previous period, the role of education administrators in the context of 4IR is still presented in some specific points:

First, education administrators play a decisive role in ensuring the successful implementation of education policies and improving the effectiveness of educational activities.

Second, the education administrator is the person who controls a large and complex system, and at the same time, implements diverse and flexible educational policies to proactively and creatively deal with the problems that arise.

Third, education administrators nowadays also play the role of politicians (creating consensus in the organization); at the same time, as a "businessman" (under the pressure of revenue - expenditure, salary, bonus, welfare,...); also as a strategic planner (towards innovation and development); and an administrator (change management).

Faced with the changes of 4IR, education administrators must absorb and know how to apply various modern - appropriate - effective management methods and means, along with being equipped with "hard" and "soft" knowledge in the direction of intensiveness and professionalism to become administrators with enough courage to turn guidelines and policies into reality.

However, an issue that needs to be frankly recognized is that most of them have not been properly trained and specialized in management knowledge before being appointed, transferred, or rotated,... Therefore, it is the education management administrators, who are rotated and appointed, still confused about carrying out the role and functions of educational management, and also about the expression of personal responsibility; the ability to coordinate, organize and arrange within the organization and between involved parties inside and outside the system is limited. In addition, some education administrators still rely on, lack of initiative in handling work, lean on the "hands-on support" or "under the supervision" of their superiors; delays and difficulties in the work detect and solve practical problems posed by the lack of knowledge and skills in educational management, particularly in applying and implementing of educational management methods following the development trend of the 4IR.

Management methods of education administrators are mainly based on personal experience, rarely applying education management science to directing and operating.

The above inadequacies and weaknesses derive from the following reasons:

- Educational thinking is slow to innovate; the old ideas still affect and dominate the management mechanism.
- State management of education is still overlapping, inadequate, not suitable with the trend of the times, the need to develop human resources, especially high-quality human resources for the country.
- The construction, zoning, and planning work still have many shortcomings.
- The necessary "core" capacity on the educational management of some personnel is still limited in theory and practice, demonstrated in the following competencies: Synthetic analyzing and forecasting; Creating and sharing a vision; Strategic planning; Attracting and gathering forces; Self-learning.
- The education management administrators' education level has improved significantly, but there are still differences in educational attainment between the target groups.

Basic policies to develop the capacity of educational administrators in response to the requirements of educational innovation and the impact of the industrial revolution 4.0

Firstly, continue to reform the salary policy for education administrators following Resolution No. 107/NQ-CP on the Government's Action Program to implement Resolution No. 27/NQ-TW on policy reform salaries for personnel, civil servants, public employees, armed forces, and laborers.

Secondly, implementing payroll according to job position for public employees who are education administrators in particular, and the education and training industry in general. Focus on concentrated investment to modernize training institutions; foster education administrators based on regulations on content, programs, staff, lecturers, and administrators

about facilities and equipment, quality of training, and refreshment. The training program for educational administrators must meet regional and international integration requirements and adapt to the development trend of the 4IR.

Thirdly, unify the management hierarchy in the education system. In fact, during the implementation process, there were distortions, overlaps, inconsistencies..., which significantly affected the quality of educational management staff. It is necessary to focus on improving the working environment of educational administrators, creating conditions for them to promote all abilities, creativity, enthusiasm for the teaching profession, and create conditions for the advancement of in their career of state education is also a point that needs attention in the current context. Besides, education administrators, aside from being trained in the country, need to be sent for training in other countries with advanced education in the world.

CONCLUSION

With the 4IR, education is geared towards overall personal development; education has expanded the learning age through the concept of "lifelong learning." Education in 4IR has completely changed the learning goals; new skills must be acquired for graduates must also change; creative thinking, coordination, cooperation, judgment, and service orientation, also, decision-making in complex situations are essential skills in the 4.0 era to meet the requirements of a new labor market. The change in technology, new skills formed by the requirements of modern society, and new educative trends make future education, 4.0 education obligation to have a new vision, fundamentally different from current education. The fundamental change in the labor market in the modern era has posed many challenges for education administrators, requiring them to innovate comprehensively, from school management methods to organizing training skills, expertise, professionalism, and working environment to suit the development trend of 4.0 education. These require improvement, from awareness, thinking, skills, attitudes, qualities to actions of education management staff, to fulfill their responsibilities under the impact of Industry 4.0./.

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