

# IMPROVING ADAPTIVE COMPETENCE FOR VOCATIONAL EDUCATION TEACHERS IN THE CURRENT CONTEXT

Truong Thi Thu Huong

University of Technology, Thainguayen University, Vietnam

---

**Abstract:** *Adaptive competence plays an important role in professional activity, helps a person change his/her psychophysiological characteristics, personality to fit, meet the requirement of the activity, to achieve work efficiency and to improve labor productivity. The Industrial Revolution 4.0 makes many fields change, especially in the education field. In the context, vocational education teachers - one of elements decides the quality of vocational training - must be faced big changes of professional education, such as the change of educational policy, objective, content; needs, competence and learning culture of learners; environment, means, teaching technology... The paper will discuss about the challenges posed to vocational education teachers and some solutions to improve adaptive competence of them, and contribute to improving of the quality of vocational training in the current context.*

**Keywords:** Adaptive competence, vocation training, vocational education teachers.

---

## INTRODUCTION

In the context of the strong development of the Industrial Revolution 4.0 - digital revolution, its center is the development of artificial intelligence, robotics, IoT (Internet of Things) [5], Vietnam is facing challenges and negative impacts, such as the lag of technology, the decline in production, the redundancy of labor force who have low skill and degree, the breaking of the traditional labor market... One of the important factors who contributes to the nation to face and overcome that challenge is the labor force 4.0. To get the labor force 4.0, we need vocational education teachers 4.0. However, at the present, many of them are evaluated at level 3.0, or even 2.0. They have not yet adapted to the training of human resources in the new context and affect the quality of trained labor resources. Therefore, identifying roles, influencing factors and suggesting solutions to improve the adaptive competence of the vocational education teachers in the current context is essential and meaningful.

## CONTENT

### 1. Some basic concepts

#### a. Competence

Competence is the ability to do something successfully or efficiently [3]. It is understandable that competence is a complex personality attribute, is formed based on the knowledge, skills and attitude, and help people satisfy the requirements of work.

#### b. Adaptation

Adaptation is the process of transforming the psychological life and behavioral system to meet the demands and requirements of new living conditions and new activities [4].

Thus, to improve the adaptive competence for a certain career field, everybody needs to change all attitude, knowledge and skills in the career field.

## **2. The role of adaptive competence for vocational education teachers**

Being able to respond effectively to the inherent novelty, change, and uncertainty that characterizes teaching work is an important competence for most teachers. Teachers have to adjust the teaching management, content, method and objective and other items in the teaching to adapt to the employment pressure on the learners from the career along with the economic development and change in the progress of science. They must respond to the different and changing needs of students by adjusting the lesson pace, adapting activities for different students, or seeking out different resources to better explain or illustrate key points; must adapt in order to cope with unexpected situations in classroom management by regulating emotions that might arise such as frustration, anger or mirth and conveying patience, or thinking of alternative ways to solve problems; must also effectively interact with colleagues under shifting conditions. Besides, they are regularly involved in professional learning and are expected to continually integrate new knowledge into their teaching practice and curriculum or policy changes may require further adaptability from teachers [4].

Especially, in the context of the Industrial Revolution 4.0, the adaptability of the teachers makes the teaching catch up with the development of economy, science, technology; shorten the gap between the vocational education and vocational demand.

Therefore, the development of career adaptability helps the teachers ensure the professional and career development continuously, and helps the vocational training process meet the requirements of learners and society.

## **3. Impact of the current context on competence of the vocational education teachers and the reality of their adaptive competence**

The Industrial Revolution 4.0 brings many opportunities as well as risks and challenges for vocational training process in general and vocational education teachers in particular.

The first, in the current context, low-level working may be replaced by mechanics and lost. So, some career fields will appear; vocational education teachers must be able to train new skills for workers. If they don't change, move to adapt to the new profession, they will be faced the risk of unemployment and rejection.

The second, many advanced technologies are put into vocational training process. Online training models, virtual schools, virtual classes ... become more popular and attract learners than the traditional teaching styles because of the diversity of learners, the flexibility of teaching space and time, and lively, abundant, practical and safe teaching content. In addition, in the virtual learning environment, although they do not face directly to get the clearly, detailed feedback information from the learners, they still must be used active teaching methods to organize and control to attract attention, activate and personalize the learning process of learners. Therefore, they must be capable of adapting to technology and teaching methods in order to organize the teaching process correspondingly, effectively.

The third, the trend of international cooperation in vocational training will become stronger and broader. The capacity of vocational education teachers should be compatible with the capacity of the teachers in Asia and in the world. So, they need to adapt to professional and language qualification that help them access to advanced science and technology to use in the training, training cooperation and exchange academic, exploit teaching resources, mobilize resources... to improve the effectiveness of vocational training process.

The fourth, in order workforce adapt rapidly to professional reality, the teaching process must be reached reality. So, the teachers must be adapted to new training models such as the training model at the workplace (On the Job Training) and the training model combined between schools and businesses (Dual System model). They need to understand about realistic profession, their roles and responsibilities in the new teaching form to combine correspondingly, effectively.

The fifth, in order to adapt to new vocational training environment, creativity competence plays a very important role. It help the teachers develop thinking ability to detect problems and solve problems. So, all teachers should be had capacity of scientific research.

These are the challenges of the vocational teachers in the current context. However, in fact, they are still shown the quality constraints, so it is difficult to adapt to vocational training in the new context. In 2015, in Vietnam, the numbers of vocational is 73,612, in which 40.246 people at colleges, 19.454 people at vocational schools and 13.912 people at vocational training centers [1]. They are evaluated lacking in quantity and restricting in quality. Comparing with professional standards [2], many teachers do not meet the requirements of vocational skills, have limited professional, foreign languages, computer science, integrated teaching, scientific research and creative competence. Some of main reasons for this limitation include:

(1) In contrast, many teachers are easy to have conservative psychology, afraid of changing, afraid of failure and have limited capacity of technology, foreign language, computer science. Therefore, they all have many difficulties and need training or retraining to adapt to new circumstances.

(2) Curriculum programs used to train the vocational teachers at the Universities usually focus on theory, have form of education credits. In the vocational schools, they focus on training of skills, integrated training and form of education module. Thus, the technology education students are difficult to adapt to the new professional environment.

(3) The investment of modern and synchronous teaching technology centers is a problem of many universities, colleges and vocational training schools. So, the teachers don't or rarely apply smart teaching technology (digital lectures, online teaching...) and practice teaching skills, management of learners in the virtual teaching environment. So, their adaptability to technology and teaching skills is limited.

(4) The number of teachers achieved postgraduate education and could be able to participate in scientific research is limited. Thus, it limits the their creative and adaptive competence of the workforce in the real professional environment

(5) Teaching foreign languages in Vietnam focuses mainly on grammar, less practice in listening, speaking, reading and writing skills; lack of interaction and no application environment outside the classroom. Therefore, although they learn a lot, most students can not use foreign languages.

#### **4. Some solutions to improve adaptive competence of the vocational teachers in the current context**

In order to adapt to the professional environment in the context of the Industrial Revolution 4.0, we should perform some basic solutions as follows:

The first, the vocational education teachers must overcome your conservatory, stagnation, fear of change and fear of failure. Therefore, they need to update information on current and future occupations; The school needs to make educators aware of the importance of innovation, their roles and responsibilities of in innovation. In addition, they need favorable conditions on material foundations, regimes and policies to undertake the renovation.

The second, in order to help the vocational education teachers able to move your occupation as needed, the training program should be included a basic, complementary and interdisciplinary knowledge system. The Teacher Training Universities should use the job analysis method DACUM (Develop A Curriculum) to identify occupations that will likely be lost and appeared, and identify the skills that needed to train. The training programs are based on open principles, approach to trends and development of occupation in the world to welcome the new context. Thus, they should be included a wide background knowledge system (with the integration of Information Technology - Mechatronics - Engineering - Social Skills). One of the educational models that should be used in the training of teachers is the model of Science - Technology - Engineering - Math, the STEM model. It ensures involving two or more different subjects or areas of knowledge, integrating real-world lessons, connecting schools - communities - global organizations ... So it makes the teachers easier adapt to new occupation.

The third, in order to adapt to advanced teaching technology, the teachers should have the competence of information technology, mastering technology and digital pedagogy. Thus, the technical education universities and vocational schools need to equip modern Teaching Technology Departments. The students and educators are experienced and practiced using intelligent engineering devices such as cameras, digital video cameras, audio-visual equipment, computers and teaching software... to teach, or connect, interact with learners and stakeholders. Besides, they need to be instructed and trained skills of digitizing lectures, simulating teaching content by VR (Virtual Reality), AR (Augmented Reality). In addition, they should be used some new teaching models such as Flipped Classroom, Blended Learning, Moocs, Virtual Labs...; be trained teaching skills and classroom management skills in a virtual learning environment to adapt to new teaching technologies in fact.

The fourth, the vocation teachers should be trained by positive teaching methods such as problem-solving teaching, case study, learning based project, teaching through scientific

research, experience... to react and adapt quickly to the diverse, multi-dimensional contexts in fact.

The fifth, in order to improve the adaptability of foreign languages, beside the efforts of themselves teachers, the vocational training schools should have support conditions, especially the environment and forcing for the teachers. They have many opportunities to use and are required using foreign language. Thus, they are trained in listening, speaking, reading and writing skills in general communication and in their professional field. In addition, the participation in cooperation with other advanced countries in the training of teachers, vocational training process, implementation of projects, scientific research projects ... are the important conditions and pressures for them to try to overcome their limitations to adapt language effectively.

## CONCLUSIONS AND RECOMMENDATIONS

In the current context, the vocation teachers must be faced many difficulties and challenges. Enhancing awareness of innovation, the determination to innovate, the improvement of professional competence, pedagogical competence, digital pedagogical competence, information technology competence, foreign language competence and scientific research competence are the important solutions that make the vocational teachers adapt quickly to the changing professional environment; their careers can be developed continuously and sustainably; so contribute to improve the quality of vocational training and competitiveness of the workforce trained and thus contributes to meet the requirements of the national renovation in the current context.

## REFERENCES

- [1] Department of Vocational Education (2016), *Draft of Project on renovating and improving the quality of vocational training education for the period 2016 - 2020*, Ministry of Labor - Invalids and Social Affairs.
- [2] Ministry of Labor - Invalids and Social Affairs (2017), Circular No. 08/2017/TT-BLDTBXH Regulating professional standards of the vocational teachers.
- [3] Hoang Phe, (1998), Vietnamese dictionary, Da Nang Publisher
- [4] Collie, R.J, & Martin, A.J. (2016), *Adaptability: An important capacity for effective teachers. Educational Practice and Theory*, University of New South Wales, Sydney, Australia.
- [5] Lasi, Heiner; Fettke, Peter; Feld, Thomas; and Hoffmann, Michael (2014) "Industry 4.0," *Business & Information Systems Engineering*: Vol. 6: Iss. 4, 239-242.