



# Managing training and self-training activities for high school principals in the Mekong delta region in the context of digital transformation

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## Abstract

In the context of digital transformation taking place strongly around the world, the Vietnamese education sector in general and the Mekong Delta region in particular are facing an urgent need to innovate management work, especially in the field of developing school management staff. Principals, with a central role in orienting, organizing and implementing educational activities, need to be systematically trained and self-trained to meet the requirements of digital transformation. This article focuses on studying the current situation and proposing solutions to manage training and self-training activities for high school principals in the Mekong Delta region. The study employed a mixed-methods approach, combining a quantitative survey of 115 managers (principals, vice-principals, and heads of professional groups) with in-depth interviews of 12 education managers from high schools in three provinces (city): Can Tho, Vinh Long, and Dong Thap. The results showed that the management of training and self-training activities lacked a clear strategy, was not closely linked to the requirements of improving digital capacity, and did not effectively promote the self-learning role of the principal team. The article proposes an integrated management model that applies digital technology, builds a digital transformation capacity framework for principals and establishes appropriate support policies to improve the quality of school leadership in the digital age.

**Keywords:** Digital transformation of education, Training and self-training of principals, High school education management, Mekong Delta, Digital capacity of managers

## Introduction

In the context of globalization and the strong development of digital technology, digital transformation has become an inevitable trend in all areas of social life, especially in education. In Vietnam, the Government has identified digital transformation as one of the three important pillars of the national development strategy, in which the education sector plays a key role in creating high-quality human resources to meet the requirements of the digital age. Resolution No. 29-NQ/TW on fundamental and comprehensive innovation in education and training, together with the National Digital Transformation Program to 2025, with a vision to 2030, has emphasized the role of teachers and educational managers as a pioneering force in educational innovation.

In the general education system, the principal plays a central role in the administration, operation and development orientation of the school. The leadership and management capacity of principals not only affects the quality of teaching and learning but also shapes the culture of learning, creativity and innovation throughout the school. Especially in the context of digital transformation, principals need to be able to adapt quickly to new requirements such as deploying information technology, managing student data, developing online learning formats and building school development strategies associated

with the digital environment. Therefore, managing principal training and self-training activities is becoming increasingly important and urgent.

Training and self-training are two basic forms of developing the capacity of educational managers in general and principals in particular. In which, training is the process of organizing systematic training with a program, carried out by competent authorities; while self-training is the process of self-studying and self-improving capacity through documents, technology and work practices. These two forms have a complementary relationship, creating a motivation for continuous and lifelong learning for the management team.

However, in practice, the management of training and self-training activities for principals currently still has many shortcomings. Training programs are not really linked to the practice of school management in the context of digital transformation; the content is still theoretical and lacks updates; the work of evaluating the effectiveness after training is not focused on; self-training activities are still individual, lacking support from schools and educational management agencies. These limitations are especially evident in the Mekong Delta region, which still faces many difficulties in economic conditions, infrastructure and information technology level.

The Mekong Delta region is one of the key regions of Vietnam in terms of socio-economic development, education and training. However, this is also an area that is heavily affected by climate change, migration and development gaps between localities. In that context, general education in this area is facing major challenges in terms of human resources, facilities and management capacity. The team of high school principals here needs to be equipped not only with traditional management knowledge but also with the capacity to adapt to digital transformation, in order to improve the quality of education and training in the entire region.

To effectively manage the training and self-training of principals in the context of digital transformation, a systematic and integrated approach is needed. Management does not stop at organizing training courses but also includes identifying capacity development needs, designing programs suitable for each subject, building effective assessment and feedback mechanisms, and especially supporting self-training activities through technology platforms. The application of digital management tools such as learning management systems (LMS), MOOC platforms, artificial intelligence (AI) to personalize the learning process, track progress and results is an irreversible trend in the current era.

However, in the Mekong Delta, the implementation of technology-integrated principal training management models is still very limited. Some of the main reasons include: inadequate awareness of school leaders about the role of digital transformation; lack of technical infrastructure and financial resources; delays in issuing specific policies from local education management agencies. In addition, many principals lack technological skills, are afraid of change and have not yet formed the habit of lifelong learning in the form of digitalization. Based on the above reality, this study was conducted with the following objectives: (i) Analyze the current status of management of training and self-training activities for principals of high schools in the Mekong Delta; (ii) Identify factors affecting the effectiveness of these activities in the context of digital transformation; (iii) Evaluate the level of response of current training programs to digital transformation requirements; and (iv) Proposing a model for managing training and self-training activities for principals that is appropriate, integrates technology, and adapts to the specific conditions of the region.

The study employed a mixed-methods approach, combining a quantitative survey of 115 principals, vice principals, and heads of professional groups with in-depth interviews of 12 education managers in three places: Can Tho city, Vinh Long province, and Dong Thap province. This approach allows us to clarify not only the overall picture but also delve into the difficulties, expectations, and specific recommendations from the insiders themselves. The article is not only academically oriented but also aims to have high practical application value, contributing to the provision of a scientific basis for policy-making to develop the capacity of education managers in the digital age.

## Literature review

### Managing training and self-training activities

Training is the process of organizing targeted training activities with specific programs to improve knowledge, skills, and

professional attitudes for learners. According to Huynh Van Thoi (2018), training is part of the human resource development strategy, associated with the requirements of innovation and integration of modern education.

Self-training is the process in which learners proactively, independently, and regularly carry out learning activities to improve their capacity without depending entirely on a formal training program. Self-training is considered a form of “lifelong learning”, in line with the thinking of continuous professional development (CPD - Continuing Professional Development).

Managing training and self-training activities includes planning, organizing, implementing, monitoring, evaluating, and adjusting training and learning activities to develop the professional capacity of management staff. According to Nguyen Thi Hong Hai and Doan Van Dung (2019), training management needs to ensure systematicity, flexibility and connection between personal development goals and educational organization development goals.

### Principal and role in school governance

The principal of a high school is the head of a general education unit, responsible to the superior management agency for all school activities. According to Circular 32/2020/TT-BGDĐT (Ministry of Education and Training), the principal is not only an administrative leader but also an inspiration, creating a creative and innovative learning environment.

In the context of digital transformation, principals need not only professional capacity but also technological capacity, digital management capacity, systemic thinking and the ability to adapt to change. According to UNESCO (2022), principals in the digital age need to master technology, lead transformation and promote digital capacity development for the teaching staff.

### Digital transformation in education

Digital transformation in education is the process of integrating digital technology into all areas of educational activities to innovate teaching and learning methods, management, assessment, and build a flexible, open, and personalized learning ecosystem. According to the Ministry of Science and Technology (2024), digital transformation includes three main pillars: content transformation, method transformation, and organization and management transformation.

For high schools, digital transformation does not stop at applying technology equipment to teaching and learning, but also requires changes in thinking, organizational structure, governance model, especially upgrading the digital capacity of leaders, specifically principals.

### Principal's digital capacity

Principal's digital capacity is the ability to use digital technology effectively, safely, and ethically in educational management and leadership activities. According to the EU DigCompEdu competency framework (2017), the digital competencies of education managers include the following elements: understanding technology, organizing and managing

digital systems, promoting educational innovation, security and digital ethics.

The Vietnamese Ministry of Education and Training (2022) has issued a digital transformation competency framework for teachers and education managers, emphasizing the following competency groups: using IT in administration, analyzing learning data, designing training plans, and developing digital culture in schools.

### **The relationship between management, training and digital transformation**

From the above concepts, it can be seen that managing training activities and self-training of principals cannot be separated from the requirements of digital transformation. The management process needs to ensure three principles:

- Orientation of digital capacity development,
- Design of flexible and personalized learning systems, and
- Linking the school development plan with the principal training roadmap.

In addition, effective management of this activity requires the application of technological tools (LMS, MOOC, competency management dashboard), a multi-dimensional assessment mechanism, and the formation of a lifelong learning culture in the leadership team.

### **Theoretical Framework**

Based on the theoretical foundations presented, this study is guided by three main theoretical pillars:

- Modern educational management theory: According to scholars such as Bush & Glover (2003), modern educational management does not stop at the administrative aspect but needs to move towards strategic management, focusing on human development. In which, the manager, specifically the principal, plays the role of setting the vision, coordinating resources, developing the team, and creating a learning environment.
- Continuing Professional Development (CPD) model: According to Day & Sachs (2004), the CPD model emphasizes the combination of formal training and self-training, placing individuals in a proactive role in updating knowledge and skills, thereby creating a suitable career development path. This model is the basis for designing principal training activities in a personalized, continuous and flexible direction.
- Digital competency framework for educational managers: Based on documents from UNESCO (2022), EU DigCompEdu (2017) and the Digital competency framework of the Ministry of Education and Training of Vietnam (2022), the digital competency of principals is divided into 5 groups: (i) Understanding and operating technology; (ii) Leading digital transformation in schools; (iii) Managing learning data and information; (iv) Supporting staff training through digital platforms; (v) Ensuring safety, ethics and security in the digital environment.

From there, the research theoretical framework is built according to an integrated model consisting of 4 elements: (i)

Education management environment and policies (legal basis, digital transformation orientation); (ii) Training and self-training activities (content, form, implementation tools); (iii) Digital capacity and the role of the principal (training subject, self-study ability, innovation); (iv) Training management results (relevance, effectiveness, sustainability and spread ability). This theoretical framework serves as the basis for designing survey tools, interviews and data analysis in practical research.

### **Research methodology**

#### **Research design**

The paper uses mixed methods, in which quantitative is the main method combined with qualitative methods to clarify the depth of the issues.

#### **Quantitative method**

Survey by questionnaire with 115 people including: 35 principals, 40 vice principals, and 40 professional group leaders working at high schools in three places: Can Tho city, Vinh Long province, Dong Thap province. The questionnaire was built based on the principal competency frameworks in digital transformation (MOET, UNESCO, DigCompEdu), pilot tested with 10 people and adjusted to suit the context of the Mekong Delta region.

#### **Qualitative method**

Semi-structured interviews with 12 managers (6 principals, 3 vice principals, 3 education department specialists) were coded from PV1 to PV12. The interview content focused on: (i) difficulties in implementing digital training, (ii) the role of school management, (iii) self-study ability and technology application.

#### **Data analysis**

Quantitative data were processed using SPSS 26, descriptive statistics (frequency, mean), ANOVA, and exploratory factor analysis (EFA).

Qualitative data were coded thematically, and content was analyzed in thematic coding.

### **Research results**

#### **Current status of training and self-training management of high school principals in the Mekong Delta**

Evaluating the current status of training and self-training management is important in identifying strengths, weaknesses, and gaps that need improvement. From there, appropriate strategies can be developed to improve the quality of school leadership development. This paper presents the results of a quantitative survey of 115 managers and interviews with 12 people working at high schools in three provinces (cities): Can Tho, Vinh Long and Dong Thap, focusing on plans, forms, support mechanisms and effectiveness of organizing training and self-training activities.

**Table 1:** Assessment of the current status of management of training and self-training activities by principals

Order	Survey content	1	2	3	4	5	XTB
1	The school has a specific training plan for each school year	2	5	12	57	39	4.06
2	The training plan is based on the principal's personal needs	6	11	28	47	23	3.54
3	There is a post-training assessment to improve the content and methods	7	15	30	44	19	3.40
4	There are regulations and instructions on self-training from the Department/Department of Education and Training	9	17	36	39	14	3.21
5	Self-training is integrated with the school's development plan	11	19	35	36	14	3.15

The survey results show that: The highest index is the planning of training for the school year ( $M = 4.06$ ), showing that most schools have initially organized this work systematically. However, consultation of individual needs ( $M = 3.54$ ) and self-training with guidance from superiors ( $M = 3.21$ ) are quite low, reflecting the trend of “top-down assignment, bottom-up implementation” which is not really flexible and personalized. Commenting on this situation, according to PV2 (principal, Vinh Long): “Training plans are often made according to the model of the Department or Department, not clearly reflecting the needs of each principal. We mainly study on our own, but there is no specific support”. PV5 (vice-principal, Dong Thap): “After training courses, there is rarely any feedback or re-evaluation. We mainly rely on our feelings to make adjustments”. PV9 (specialist from the Department of Education and Training): “The management of self-training has not been focused on. Many principals have not yet formed the habit of updating knowledge through online learning”.

From the research results, it is possible to identify some clear strengths and limitations in the management of training and self-training activities for principals of high schools in the Mekong Delta. In terms of strengths, most schools have developed annual training plans, showing initial initiative in organizing and implementing capacity building programs for management staff. The rate of plan implementation is quite high, reflecting the positive awareness of schools towards this task.

However, besides the positive aspects, there are still many notable limitations. First of all, the development of training plans is not really linked to the needs of developing the personal capacity of principals and the requirements for innovation in school management. The relationship between management - demand - results has not been clearly established. In addition, self-training activities lack specific guidance, supervision and support mechanisms, leading to spontaneity and unevenness among individuals. Post-training evaluation is mainly formal, not creating motivation for continuous learning and sustainable professional improvement.

### Factors affecting the effectiveness of training management and self-training

The effectiveness of training management and self-training activities depends not only on the individual efforts of the principal, but is also affected by many objective and subjective factors. Clearly identifying these factors is of practical significance in determining the focus of intervention and developing appropriate policies in the context of digital transformation. This section analyzes survey data from 115 people through the exploratory factor analysis (EFA) method, combined with the results of in-depth interviews with 12 managers to clarify the role, impact and level of influence of each factor on the quality of training management at high schools in the Mekong Delta. Based on EFA analysis ( $KMO = 0.823$ ; Bartlett's Sig. = 0.000), four main groups of influencing factors are identified:

**Table 2:** Factors influencing the effectiveness of training management and self-training

Order	Factors	Eigenvalue	Variance rate (%)
1	Digital competence and awareness of principles	3.215	28.7
2	Policies and support mechanisms from management agencies	2.604	20.8
3	Financial resources - technology infrastructure	2.001	18.3
4	Learning culture and career development motivation	1.718	15.1

Table 2 summarizes the results of Exploratory Factor Analysis (EFA) to identify groups of factors affecting the effectiveness of managing training and self-training activities of high school principals in the Mekong Delta. EFA analysis was conducted with  $KMO = 0.823$  and Sig. Bartlett's Test = 0.000, showing that the data is suitable for factor analysis. The four main factors identified have an eigenvalue  $> 1$ , with a total explained variance of 82.90%, confirming that the model has strong explanatory power. Commenting on these issues, according to PV3: “If the principal is not fully aware of the role of technology and self-study, even if there is a good program, it will not be effective”. PV6: “We need support from the

Department such as providing online learning accounts and clear guidance”. According to PV11: “Technology infrastructure between schools is very different, directly affecting the ability to learn digitally”.

### The level of meeting the requirements of digital transformation of current training programs

In the context of education shifting strongly to the digital environment, training programs for principals need to be designed to suit the requirements of digital transformation in terms of content, methods and implementation forms. The objective of this section is to assess the actual level of meeting



the requirements of digital management of principals of high schools in the Mekong Delta. Data is analyzed based on survey responses of 115 managers, combined with comments from 12

in-depth interviews to clarify the level of technology integration, practical application and the gap between expectations and reality in training.

**Table 3:** Assessment of the level of meeting the requirements of digital transformation

Order	Training program content	XTB
1	Contains digital transformation leadership skills	3.42
2	Provides online learning support tools (LMS, MOOC, E-portfolio)	3.21
3	Applies flexible learning methods (blended, e-learning)	3.38
4	Provides guidance on implementing digital transformation in school management	3.26
5	Updates new educational technologies (AI, Big Data, EdTech)	2.95

Table 3 presents the results of a survey of 115 education managers on the level of meeting the requirements of digital transformation in current principal training programs. The results were measured using a 5-level Likert scale, with the average score (M) of each criterion representing the level of consensus of the respondents. These indicators clearly reflect the general assessment of the suitability, timeliness and ability to deploy technology in the training content and methods.

Thus, no criterion reached 3.50, showing that current training programs do not fully meet the requirements of digital transformation. Important contents such as AI, digital learning tools, and digital management guidance are being left open or only stopping at the awareness level. Combined interviews show a gap between teaching content and practical needs, and also show a lack of specific action directions for principals. This result shows that training programs need to be updated with a modern digital competency framework, apply advanced

learning technology and integrate specific action instructions, to help principals not only “know about digital transformation” but actually lead this process at school.

### Practical recommendations on effective management models

Based on the synthesis of survey and interview results analyzed in the previous sections, this section aims to propose a feasible model for managing training and self-training activities for principals, suitable for the conditions of the Mekong Delta region and the context of digital transformation. The recommendations focus on integrating technology in management, personalizing career development pathways, enhancing the role of educational management agencies and forming a digital learning culture. This is an important practical basis that contributes to policy making and innovation in developing the team of principals in the current period.

**Table 4:** Assessment of the necessity and feasibility of the components in the proposed management model

Order	Proposed content in the management model	Level necessity (M)	Level feasibility (M)
1	Design a personalized training plan for principals, linked to the digital competency framework	4.36	3.92
2	Combine formal training and self-training via LMS and MOOC platforms	4.28	3.87
3	Apply a dashboard to manage learning progress and assess principals' competencies	4.15	3.69
4	Enhance the support role of the Department of Education and Training (policies, resources, monitoring training progress)	4.44	4.01
5	Establish a mechanism to record and encourage self-training results (competition, certification, periodic assessment)	4.22	3.78
6	Form a digital learning culture and a professional learning community among principals	4.30	3.84

Table 4 reflects the level of consensus among 115 education managers on the necessity and feasibility of the components in the model for managing training and self-training of principals in the context of digital transformation. In general, the contents were highly evaluated in terms of necessity, with average scores ranging from 4.15 to 4.44, showing the consensus of the management team on the strategic role of each component in the proposed model. The component with the highest necessity was “Strengthening the support role from the Department of Education and Training” with  $M = 4.44$ , and also had the highest feasibility level ( $M = 4.01$ ), showing expectations for the role of coordination, provision of resources and policies from the direct management level. Next are the recommendations “Establishing a personalized training plan” ( $M$  required = 4.36;  $M$  feasible = 3.92) and “Forming a digital

learning culture” ( $M$  required = 4.30;  $M$  feasible = 3.84), reflecting the practical need to build a learning model suitable for the characteristics of each individual and school.

However, the lowest score for feasibility belongs to the criterion “Application of competency assessment dashboard” ( $M = 3.69$ ), showing technical and technological capacity barriers. This is consistent with the interview results, when many principals still have difficulties in using digital learning platforms (PV4, PV6).

The results of Table 4 reinforce the argument that the proposed management model receives high consensus in terms of orientation, but there needs to be a reasonable implementation roadmap and adequate technical support to ensure sustainable implementation in the educational practice of the Mekong Delta. Commenting on this situation, according to PV12: “We

need a learning ecosystem for principals, not short-term courses that end”.

### **Proposed solutions**

#### ***Solution 1: Develop digital capacity and digital transformation awareness for principals according to a personalized roadmap***

The survey results show that digital capacity and digital transformation awareness are the factors that have the greatest influence on the effectiveness of training and self-training management ( $M = 3.22$ ; accounting for 28.70% of the explained variance). However, the majority of principals are still approaching technology at a basic level, lacking a clear direction in capacity development. Therefore, the key solution is to build a personalized digital capacity development roadmap for each principal, based on the digital transformation capacity framework of the Ministry of Education and Training (2022) or the DigCompEdu model (EU).

First, it is necessary to organize an input assessment of technology level, digital management skills, and LMS usage capacity, thereby classifying subjects into groups. Each group will be advised to choose a suitable course, with monitoring of learning progress and final assessment. The personalized plan not only helps learners to be proactive but also overcomes the situation of “mass training, general content” as reflected by many principals in the interview (PV1, PV3).

At the same time, it is necessary to organize internal communication activities and specialized seminars on the role of leaders in digital transformation, to raise awareness and create a change in thinking for the team of principals. Only when the leader changes his/her thinking and actions, can the implementation of training and self-training achieve sustainable results.

#### ***Solution 2: Establish a digital learning management system (LMS) to support training and self-training of principals***

According to the survey in Table 3, the index of “providing digital learning tools (LMS, MOOC, E-portfolio)” reached the lowest level ( $M = 3.21$ ), showing a serious shortage in supporting technology infrastructure to serve the principal's learning process. In particular, many interviewees (PV4, PV6, PV10) said they had never been instructed on how to use the LMS system, lacked accounts, learning materials and ways to monitor self-study progress.

The priority solution is to build or use a specialized LMS (Learning Management System) for educational managers, specifically high school principals. This system needs to integrate formal training content (mandatory courses), open learning materials (MOOCs), and personal portfolio building tools (e-portfolios). The LMS needs to have the ability to personalize according to the learner, while allowing for progress management, automatic assessment, feedback from lecturers, and self-assessment after the course.

The implementation of the LMS must be associated with initial user training and periodic technical support from IT centers or pedagogical universities. There needs to be a three-way

coordination mechanism between the Department of Education and Training, training units, and technology units to ensure the maintenance, updating, and development of the platform. This is the core platform that helps principals learn flexibly, personally, and in line with the context of digital transformation and regional characteristics.

#### ***Solution 3: Strengthen the coordination and support role of the Department of Education and Training in managing principal training***

Survey data in Table 4 shows that the criterion “Enhancing the support role from the Department of Education and Training” is rated highest in terms of necessity ( $M = 4.44$ ) and feasibility ( $M = 4.01$ ). Meanwhile, interviews (PV6, PV10, PV11) clearly reflect that current training programs are still formal, lack long-term strategy and lack real support from management.

The proposed solution is to redesign the role of the Department of Education and Training from “approving and reporting unit” to “coordinating and guiding learning unit”. Specifically, the Department needs to issue a plan for developing principal capacity for the period 2025–2030, which identifies a digital capacity framework, annual training goals, encouraged learning forms and criteria for evaluating effectiveness. At the same time, it is necessary to establish a specialized working group to manage the principal training process, through digital tools such as dashboards, feedback systems, and electronic capacity profiles. In addition, the Department of Education and Training needs to act as a focal point connecting with universities, research institutes and technology units to develop learning content suitable for the characteristics of the Mekong Delta region. There needs to be a policy to support budgets, open resources and shared digital platforms across the region. Strengthening the proactive role of the Department will help ensure consistency, fairness and efficiency in developing a team of modern principals who adapt to digital transformation.

#### ***Solution 4: Establish a mechanism to evaluate, record and encourage self-training results***

A major barrier in practice is the lack of a mechanism to recognize the self-study results of principals, making self-training activities not yet an intrinsic motivation. This is clearly reflected in the interviews (PV2, PV8, PV9), in which many principals said that “they learn and then leave it there”, “no one records or evaluates”. The survey results in Table 4.4 also show that the criterion “having a mechanism to record self-training results” is highly appreciated ( $M$  necessary = 4.22;  $M$  feasible = 3.78).

The proposed solution is to establish a mechanism to officially recognize the results of self-training of principals through forms such as: granting training certificates with accumulated credits, periodic assessment on electronic capacity profiles, rewarding, praising outstanding learning results, or including them in annual emulation and reward criteria. In addition, it is necessary to integrate self-training results into the profile for promotion of professional titles or consider conditions for reappointment to leadership positions.

This mechanism should be linked to the LMS system, allowing transparent management of the learning process, learning products, feedback from learners and instructors. Encouraging the spirit of learning not only creates personal motivation but also spreads the culture of lifelong learning among the general education leadership team.

***Solution 5: Build a digital learning culture and a professional learning community among the principal team.***

The survey results show that the criterion “Forming a digital learning culture and learning community” is highly appreciated (M necessary = 4.30; M feasible = 3.84), reflecting the need to build a positive, connected and sustainable learning environment in the education management team. However, qualitative interviews (PV2, PV5, PV9) show that current principals still study individually, share little and lack a professional digital communication platform. The solution is to develop a specialized digital learning community for principals, in the form of online forums, specialized learning groups (PLC - Professional Learning Communities), Zalo/Facebook/Google Classroom groups with systematic content management. The Department of Education and Training can play a role in building and maintaining learning groups based on management expertise such as: digital transformation in administration, teacher evaluation, building school development plans, etc.

At the same time, it is necessary to periodically organize seminars, talks, and thematic activities between principals in the province or the entire Mekong Delta region, in a combination of direct and online forms. In these learning communities, principals not only learn new knowledge but also share lessons, practical solutions and support each other in implementing school innovation. This is the fundamental condition to foster a culture of digital learning, shifting from “compulsory training” to “voluntary and continuous learning”.

**Conclusion**

In the context of digital transformation strongly affecting the education system, the management of training and self-training activities for high school principals needs to be fundamentally and scientifically innovated and adapted to practical conditions. Through a survey of 115 managers and interviews with 12 people working at high schools in three provinces (cities): Can Tho, Vinh Long and Dong Thap, the study clarified the current situation, influencing factors, the level of response of the current training program and proposed a suitable management model. The results showed that training and self-training activities are still formalistic, lack of personalization mechanisms, do not effectively utilize digital technology and lack active coordination from management agencies. Principals' digital capacity and awareness of digital transformation are key factors, but have not been given due attention and development. At the same time, technology infrastructure, support policies and digital learning culture are still significant barriers. From practical analysis, the article proposes 05 strategic solutions, including: developing digital

capacity according to individual roadmap, deploying a specialized LMS system, strengthening the coordination role of the Department of Education and Training, establishing a mechanism to recognize self-study results and building a digital learning culture. These solutions not only contribute to improving management efficiency but also create a foundation for sustainable development for the team of principals in the era of digital education.

**References**

1. Bush T, Glover D. School leadership: concepts and evidence. Nottingham: National College for School Leadership, 2003.
2. Day C, Sachs J. International handbook on the continuing professional development of teachers. London: McGraw-Hill Education, 2004.
3. Duong NTT. School management in the face of fundamental and comprehensive innovation in education and training. J Educ Manag, 2018 Feb, 9-16.
4. Central Executive Committee. Resolution 29-NQ/TW dated November 4, 2013, “On fundamental and comprehensive innovation of education and training, meeting the requirements of industrialization and modernization in the context of a socialist-oriented market economy and international integration”. Hanoi, 2013.
5. Fullan M. The new meaning of educational change. 3rd ed. New York: Teachers College Press; 2001.
6. Ha NV. Improving the quality of teachers and educational managers in the current period. Communist J, 2021. Available from: [https://www.tapchiconsan.org.vn/web/guest/van\\_hoa\\_xa\\_hoi/-/2018/824258/nang-cao-chat-luong-doi-ngu-nha-giao-va-can-bo-quan-ly-giao-duc-trong-giai-doan-hien-nay.aspx](https://www.tapchiconsan.org.vn/web/guest/van_hoa_xa_hoi/-/2018/824258/nang-cao-chat-luong-doi-ngu-nha-giao-va-can-bo-quan-ly-giao-duc-trong-giai-doan-hien-nay.aspx)
7. Hai NTH, Dung DV. Managing the quality of training and fostering cadres and civil servants to meet the requirements of administrative reform. J State Manag Online, 2019. Available from: <https://www.quanlynhanuoc.vn/2019/06/07/quan-ly-chat-luong-dao-tao-boi-duong-can-bo-cong-chuc-nham-dap-ung-yeu-cau-cai-cach-hanh-chinh/>
8. Hang LTT. Building strong teaching and learning strategies through teaching innovations and learners' creativity: a study of Vietnamese universities. Int J Educ Pract. 2020;8(3):498-510.
9. Hoduc H, et al. The changes in education policy in the context of educational innovation in Vietnam. Rev Online Polit Gest Educ. 2022;26(1):e022043. DOI: 10.22633/rpge.v26iesp.1.16772
10. Hong VV. Management of educational activities in schools towards the approach of learners' competency: a case study of a high school. Nuances Estud Educ. 2022;32:e021005. DOI: 10.32930/nuances.v32i00.9118
11. Hong VH. Necessity and solutions for ethical education among teachers in the framework of Industrial Revolution 4.0. Rev Online Polit Gest Educ. 2022;26:e022166. DOI:

- 10.22633/rpge.v26i00.17731. Available from: <https://periodicos.fclar.unesp.br/rpge/article/view/17731>
12. Luong NV. O papel educacional das redes sociais na comunicação de políticas no Vietnã. *Rev Online Polit Gest Educ.* 2022;26(esp.1):e022037. DOI: 10.22633/rpge.v26iesp.1.16513
13. Ministry of Science and Technology. To promote digital transformation in open education, institutions must be one step ahead, 2024. Available from: <https://mst.gov.vn/de-thuc-day-chuyen-doi-so-trong-giao-duc-mo-thi-the-che-phai-di-truoc-mot-buoc-197240514105555344.htm>
14. Ministry of Education and Training. Digital transformation competency framework for teachers and educational administrators. Hanoi, 2022.
15. Ministry of Education and Training. Support for Innovation in Educational Management Project (SREM): competency map of secondary school principals. Hanoi, 2007.
16. Mishra P, Koehler MJ. Technological pedagogical content knowledge: a framework for teacher knowledge. *Teach Coll Rec.* 2006;108(6):1017-54. DOI: 10.1111/j.1467-9620.2006.00684.x
17. OECD. 21st century teachers: developing a holistic framework for teacher professional learning. Paris: OECD Publishing, 2021.
18. OECD. OECD digital education outlook 2023: towards an effective digital education ecosystem. Paris: OECD Publishing, 2023. DOI: 10.1787/c74f03de-en
19. Redecker C, Punie Y. European framework for the digital competence of educators – DigCompEdu. In: Punie Y, editor. Luxembourg: Publications Office, 2017. doi: 10.2760/159770
20. Pham MG, Nguyen TTH. Developing high school managers under principal standards responding to educational innovation. *Dong Thap Univ J Sci.* 2019;37:3-9. DOI: 10.52714/dthu.37.4.2019.674
21. Thoi HV. Training and fostering cadres and civil servants from concept to awareness and action. *J State Manag Online,* 2018. Available from: <https://www.quanlynhanuoc.vn/2018/05/04/dao-tao-boi-duong-can-bo-cong-chuc-tu-khai-niem-den-nhan-thuc-va-hanh-dong/>
22. Tien PDN. Restructuring general education and general school innovation after 2015. In: Workshop on building school management models in the context of educational innovation. Hanoi: Academy of Educational Management, 2014.
23. Tuan PT. Developing high-quality human resources in the field of education and training: policies, legal provisions and recommendations for some solutions. *Russ Law J.* 2023;11(2s):377-88. DOI: 10.52783/rj.v11i2s.699
24. UNESCO. ICT competency framework for teachers. Version 3. Paris: UNESCO Publishing, 2022.
25. UNESCO. Reimagining our futures together: a new social contract for education. Paris: UNESCO, 2022. Available from: <https://unesdoc.unesco.org/ark:/48223/pf0000379707>
26. UNESCO. What you need to know about digital learning and transformation of education, 2024. Available from: <https://www.unesco.org/en/digital-education/need-know?hub=84636>
27. Van HV. Ensuring the quality of education and training in the context of educational innovation. *Qual Access Success.* 2023;5(98):40-50. DOI: 10.47750/QAS/25.198.05
28. Vu HV. Necessity and solutions for ethical education among teachers in the framework of Industrial Revolution 4.0. *Rev Online Polit Gest Educ.* 2022;26:e022166. DOI: 10.22633/rpge.v26i00.17731. Available from: <https://periodicos.fclar.unesp.br/rpge/article/view/17731>