

Factors Supporting Workplace Learning in Vietnam

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Abstracts: Learning in the workplace is a fundamental component of lifelong learning, valuable and significant for both employees and employers. Learning in the workplace helps employees improve their skills, qualifications, and labor productivity. Learning in the workplace also contributes to a culture of lifelong learning. In Vietnam, there have only been small-scale studies on the workplace learning activities of each group of learners. However, in each field and industry, there have been no direct studies on factors supporting learning in the workplace. This article has researched factors that support the workplace learning of cadres, civil servants, public employees, and employees in organizations in Vietnam. The paper conducts an overview of existing work to identify and focus research on four factors that support learning in the workplace with nine basic variables. From there, a survey of employees who have regularly studied at work in different fields, and organizations. Through the processing and analysis of survey results, this study uncovered several important issues about factors supporting workplace learning. This study found that: organizations already have factors that support learning in the workplace; Workers evaluate supporting variables to varying degrees. Besides, the level of support for these factors is different between organizations as well as localities. These results have great practical significance, helping employers have plans and policies to improve the quality of workplace learning.

Keywords: Supporting Factors, Workplace Learning, Learning Society, Lifelong Learning.

1. INTRODUCTION

In the context of the knowledge economy and the fourth industrial revolution, the relationship between workplace learning and learning citizens is closely intertwined in the learning society process. As can be seen, these are fundamental factors in building a learning society.

Building a learning society is the responsibility of Vietnam's entire political system and society. Vietnam has been implementing the Scheme on Building a Learning Society for the 2021-2030 period. The scheme emphasizes the need to "build a lifelong learning environment in the workplace that meets the requirements of productivity, efficiency, ethical standards, and professional demeanor" (Government of Vietnam, 2021). Educational institutions, state agencies, economic and social organizations, and all citizens are responsible for providing learning opportunities and creating favorable conditions for lifelong learning (Hanif et al., 2023). At the same time, workers should participate in learning and make the most of the opportunities provided by the learning society (Jin Yang and Rika Yorozu, 2015). Therefore, organizations are responsible for finding solutions to promote workplace learning to create a lifelong learning culture, establish learning organizations, and contribute to building a learning society.

Organizations have recognized the importance of workplace learning and have created many opportunities for employees to learn at work. Previous research has shown that the nature of individual participation in workplace learning depends on both the opportunities provided by the workplace and the extent to which individuals take advantage of those opportunities (Billet, 2001, 2004). The willingness of the workplace to provide opportunities for individuals to engage in direct and indirect job-related activities is a key determinant of learning quality (Billet, 2001). "There are several things that need to be in place for learning to occur and for learners to be supported in actually being able to use the learning" (Vaughan, 2008). It should be emphasized that the conditions, abilities, or opportunities to facilitate workplace learning are essential (Eva Kyndt et al., 2009). Kersh & Evans analyzed workers' reactions and identified supportive conditions and circumstances for workplace learning. The availability of training courses for employees is one of the factors that make workplace learning favorable (Kersh & Evans, 2011). Empirical research on workplace learning in Lithuanian organizations in the service sector, healthcare, and oil

processing industry has shown that employer support for workers is one of the factors that promote their desire to learn at work (Zuzevičiūtė & Bukantaitė, 2011). A study on the status of workplace learning in Japan focused on the mechanism for learning. This study analyzed three factors that stem from providing opportunities for workplace learning, including i) providing workplace learning opportunities; ii) the requirements of the internship in the workplace; and iii) indirect support for workplace learning (Hitara et. al., 2011). The CEDEFOP report (2013) describes some of the main trends in adult education and training at work, where a key motivator is the contribution of social organizations to expand opportunities for workplace learning. Creating a quality learning environment in the workplace is crucial for employers to develop innovative capacity-building in their businesses (ANTA, 2003). Workplace learning has two main partners: the organizations which provide learning opportunities, and workers who use those learning opportunities. The relationship between these 2 partners will impact learning performance in the workplace. It is extremely important to provide learning opportunities and make available conditions for workers to access and participate in learning. These factors relate to the workplace and support for workers during workplace learning.

In Vietnam, there have been some research studies on the current state of workplace learning, but these studies mainly consist of small scientific research articles, focusing on specific fields, and specific groups of learners. The results of these studies have shown that workplace learning has many advantages, such as providing modern equipment and tools, supplying materials, organizing competitions, supporting groups, having regulations for training cadres and civil servants to lead and manage, etc. However, there are still many difficulties and barriers to overcome. Some of these include training programs not being closely related to the needs and requirements of the job, not being linked to the responsibility of leaders in creating and maintaining a learning culture, and so on. (Vu Thi Thu Huyen, 2021; Nga Luc Thi, 2007; Ngoc Nguyen Thi, 2016; Tu Nguyen Hoc, 1998).

Given the current socio-economic context, the Government's interest, the importance of factors that support learning in the workplace, and the current state of research in Vietnam, our research team has selected "factors that support learning in the workplace in Vietnam" for this article.

2. RESEARCH METHODS

This study uses a multi-step process to understand the factors that support learning in the workplace following steps.

(i) First, a literature review is conducted to consider: (1) Factors that support learning in the workplace, (2) Differences in factors that support learning in occupations, organizations, and localities.

(ii) Secondly, the conclusions drawn from the literature review are the basis for developing questionnaires to survey workers' perceptions (officials, teachers, employees) of learning factors in the workplace. Respondents will be workers who have regularly studied in the workplace. The team was consulted by experts to assess the suitability and reliability of the questionnaire.

(iii) Finally, analyze the data collected between August 1, 2022, and September 30, 2022, of workers at schools, companies, and people's committees. The longitudinal survey of respondents was conducted with 4 factors: Learning time; Funding for learning; facilities, and (4) The contingent of instructors.

3. CONCEPTION AND OVERVIEW OF RESEARCH

3.1. Concepts of workplace learning

Workplace learning has become a vital factor for employees' professional advancement as well as for the organization's development in the current dynamic and complex work environment and lifelong learning platforms. The concept of workplace learning has undergone various changes throughout history, leading to several definitions and frameworks. In their article, Ellström et al., (2021) view workplace learning as a continuous and holistic process that involves learning from everyday work experience, professional development, and lifelong learning activities.

This emphasizes the importance of both informal and formal learning methods in the workplace. According to these authors, informal learning, such as learning from colleagues, and interacting with customers, plays a crucial role in developing employees' skills and knowledge, thus improving their overall performance.

Also mentioning the two aspects of formal and informal learning in the organization, Vaughan (2008) further clarifies that informal learning in the workplace may occur during the processes of workers consulting with or seeking advice from other workers or interacting with others in their professional networks, or even with customers.

In a paper discussing the issue of supporting workplace learning, Van der Klink et al. (2019) define workplace learning as intentional learning, which goes beyond individual learning to include organizational learning. In this sense, workplace learning could help organizations to innovate, adopt new technologies and work methods, and improve business performance. In addition, the authors also highlight the necessity of designing effective learning environments and respecting individual diversity in workplace learning processes.

According to Eraut (2004), workplace learning is a process of engaging in work activities reflectively to improve the performance of the employees as well as of the organization. This definition emphasizes the importance of reflection as a key component of workplace learning, in which the reflection process allows workers to learn from their own and others' experiences and draw lessons to perform the next tasks with higher quality. Billett's (2002) concept of workplace learning highlights the importance of participation and engagement in meaningful work activities, in which employees participate in work activities that allow the development of their work-related capabilities, including cognitive, social, and emotional capacities. Also discussing workplace learning about specific tasks that employees must perform, Boud and Hager (2011) emphasize the importance of challenge and stretch in workplace learning. In these authors' opinion, learning in organizations occurs when challenging tasks require employees to go beyond their borders and current capabilities, leading to personal and professional growth.

According to Marsick and Watkins' (2015), workplace learning is a process of creating and sharing knowledge within an organization, leading to continuous improvement of work practices and outcomes. Also discussing the matter of knowledge acquisition and sharing in the workplace, in a working paper on the determinants and consequences of workplace learning, CEDEFOP (European Centre for the Development of vocational training) defined workplace learning as an active, ongoing process of acquiring knowledge, skills, and other capacities that occurs while employees implement their tasks, which result in both employees and organization's improved performance (CEDEFOP, 2021). Furthermore, to clarify the concept of workplace learning versus work-based learning, CEDEFOP further states that although covering a wide range of learning activities and contexts, workplace learning can be seen as a subcategory of a broader concept of work-based learning – the acquisition of knowledge and skills through the process of carrying out the tasks in a vocational context, either at the workplace or in a VET institution.

All these concepts provide different perspectives and emphasize various dimensions of workplace learning, such as types of learning (formal, nonformal, lifelong), a holistic, active, and ongoing process, reflection manner of learning, participation and engagement, challenge, knowledge, and skills sharing and acquisition, and improved performance. By considering these different concepts, organizations can develop comprehensive workplace learning programs that address different learning needs and styles.

To conclude, workplace learning is a multifaceted concept that encompasses individual, organizational, and cultural perspectives of the learning process. It is a holistic, ongoing, reflective process that emphasizes the need for both informal and formal learning approaches and requires knowledge and skills sharing and acquisition among organization members, leading to continuous improvement of employees' work practices and organizations' general performance. Understanding the holistic concept of workplace learning can guide organizations, policymakers, and researchers in developing effective workplace learning policies and practices.

3.2. FACTORS SUPPORTING WORKPLACE LEARNING.

Workplace – learning environment for workers: Developing an appropriate learning environment to promote workplace learning has become a topic of concern in recent decades (Nicholas Clarke, 2005). Researchers have shown that the workplace is an important environment for learning (Marsick and Watkins, 1990; Michael Welton, 1991; Billet, 2001; Paivi Tynjälä, 2008). Marsick and Watkins (1990) are pioneers in research on workplace learning. They have shown that the work environment can provide a wide range of learning opportunities for learners. Fuller (2004) also argues that learning environments provide employees with diverse forms of engagement, promoting workplace learning. For the university sector, the workplace is increasingly present as a learning resource and a place of study (Tennant, M., & McMullen, C. (2008). In terms of the organizational approach to learning, Lähteenmäki et al., (2001) also emphasize the responsibility of the workplace to create conducive environments and other prerequisites for learning. Therefore, the workspace is a "space for learning and thinking is needed" (Paivi Tynjala, 2008). According to Tabitha (2022), workplace learning is an important aspect of both continuing professional education and human resource development.

In his research, Billet (2001) gives solutions to improve workplace learning:

- Develop a friendly working environment.
- Adapt workplace learning programs to the needs of the business.
- Encourage the participation of current learners and learning instructors.
- Select and prepare appropriate learning materials.

According to Eva Kyndt et al. (2009), the authors synthesized stimulating learning conditions including communication and interaction, cooperation, evaluation, reflection, coaching, and information.

In research by Fuller & Unwin, 2004, the factors affecting workforce development are specifically addressed in two trends: expansion and limitation. The listed factors relate to pedagogical, organizational, and cultural factors. The approach to workforce development is characterized by the factors listed as going to create a stronger and richer learning environment than the factors listed as limiting.

Within these factors, we are particularly interested in factors related to organizational support in workplace learning:

- Primary community of practice has shared 'participative memory': cultural inheritance of workforce development.
- Planned time off the job including knowledge-based courses, and reflection.
- Organisational recognition of, and support for employees as learners.
- Reification of 'workplace curriculum' highly developed (e.g., through documents, symbols, language, and tools) and accessible to apprentices.

Research about self-learning and self-training of teachers and found that: schools support and create favorable conditions for teachers through equipping computers, Internet connection, modern teaching equipment and organizing for teachers to apply modern equipment to teaching activities (Nga Luc Thi, 2007; Ngoc Nguyen Thi, 2016).

The following studies address the pedagogical factors of learning in the workplace. Research by Kersh & Evans (2011) has shown several factors associated with teachers that promote workplace learning, namely: i) encouraging teachers to teach workers to also become lifelong learners; ii) always putting learners first; iii) supporting teachers to use new technology as part of lifelong learning. The report of Vaughan et al., (2011) suggests that using active

teaching methods to support learning activities, and learning from real-world experience are two of the factors influencing the quality of learning in the workplace. According to the CEDEFOP report (2013), professional development and improvement for internal trainers and trainers of the organization enhance the quality and relevance of the learning process in the workplace.

Conditions for supporting primary teacher fostering activities include: (i) Mobilizing resources to provide financial support for teacher fostering activities; (ii) Having reasonable policies and regimes for teachers to comply with the fostering and self-retraining plan; (iii) Providing materials, facilities, and equipment for teacher training; (iv) Arranging suitable time and place for teacher training activities (Long Do Viet, Hieu Tran Van, 2020).

Thus, in different studies, the factors supporting learning in the workplace are diverse and different in choices. From these studies, we selected factors supporting workplace learning. These factors all come from the organizations that create learning opportunities and create a learning environment for employees. In addition, these factors support workplace learning, while impacting the quality of worker learning.

3.3. Factors Affecting Support For Workplace Learning

The Organization is one of the factors affecting the support of workplace learning. Many studies suggest that different organizations have vastly different supports for workplace learning. Organizations can facilitate non-formal and informal learning using culture, policy, and specific procedures (Marsick and Watkins, 1990). Workplace learning is like learning in school which can take different forms depending on the individual's position in the work environment and is based on many contextual factors related to the workplace environment (Paivi Tynija, 2008). Research by Kersh & Evans also shows that various factors stemming from the work environment influence how workers connect skills with practice (Kersh & Evans, 2011). Workplaces vary greatly in how they support workplace learning (Paivi Tynija, 2008). The extent to which employees in different institutions and industries have opportunities and are encouraged to learn varies (Fuller, 2004). Hence, there are differing opinions on factors affecting the support for workplace learning depending on the context and characteristics, and functions of each field.

In addition to organizations, different localities (provinces/cities/countries) are other factors affecting support for the workplace. According to Jin Yang and Rika Yorozu (2015), workplace learning in Singapore and South Korea both has significant financial support from training funds. In this report, the author has also cited several relevant studies, in Singapore, that the Skills Development Foundation (SDF), the National Training Award Program, recognizes and rewards companies that excel in employee training (Kuruville et al., 2001: 16). Another initiative, specifically supporting low-wage workers, is the Workers' Subsidy Training (WTS) Program. This provides monetary incentives for employers to subsidize training for low-skilled, low-wage workers. WTS rewards employers who subsidize training for those employees by paying these employees when they are away from home. Furthermore, WTS encourages employees to participate in training programs by offering financial rewards for each skill level completed. In South Korea, there is the Employment Insurance (EI) program, a national program funded by the training tax. The EI system is like Singapore's SDF in that it also provides financial incentives for employers to provide subsidized training to their employees (Jin Yang and Rika Yorozu, 2015). Research shows that different countries have different support for workplace learning. How is there support in different provinces/cities for workplace learning?

To cut a long story short, there are many factors supporting workplace learning as well as factors affecting support for workplace learning. The level of support depends on the strategy and potential of each Organization in the context of promoting lifelong learning and building a learning society. According to the above studies, the decisive factors that affect the quality of workplace learning include organizational support, individual workers' motivations, and incentives from the state and organizations; content, form, learning method, the capacity of teachers, and conditions and environment for learning. However, this is a synthesis of many studies, none of which have looked at all the factors and their impact on supporting workplace learning. This is also an open topic for us to study in this article.

4. RESEARCH INVESTIGATION

4.1. Introduction of the Research

Based on the overview of the research, a research model was selected for the current study with the following factors: (1) Learning location, (2) Learning time, (3) Supporting technical equipment, (4) Learning materials, (5) Funding for time off work to attend school, (6) Tuition support, (7) Hiring teachers, (8) Employing on-site teachers, (9) Placement of old people to mentor new ones. To ensure the validity of the model, the team consulted experts on the research model. Experts are staff and lecturers who are knowledgeable about adult education at agencies, organizations, and schools. Based on the comments of experts, the research team edited and implemented the data. The above criteria are grouped into 4 factors: (1) Learning time, (2) Funding for learning (funds to compensate for time off work to learn, tuition support), (3) Facilities (learning location, equipment, supporting techniques, and learning materials), (4) The contingent of instructors (Placement of old people to mentor new ones, hiring well-qualified teachers, using on-site teachers).

The data obtained helps to analyze the influence of different locations, and the characteristics of different organizations on the factors supporting workplace learning. The model is designed to explain the dominant factor in the process of organizing workplace learning. In this study, workplaces were categorized based on the administrative area (province/city) and organization characteristics to examine whether there were any differences in the sub-samples supporting factors in promoting workplace learning. Figure 1 depicts factors supporting workplace learning and the factors used to classify workplaces.

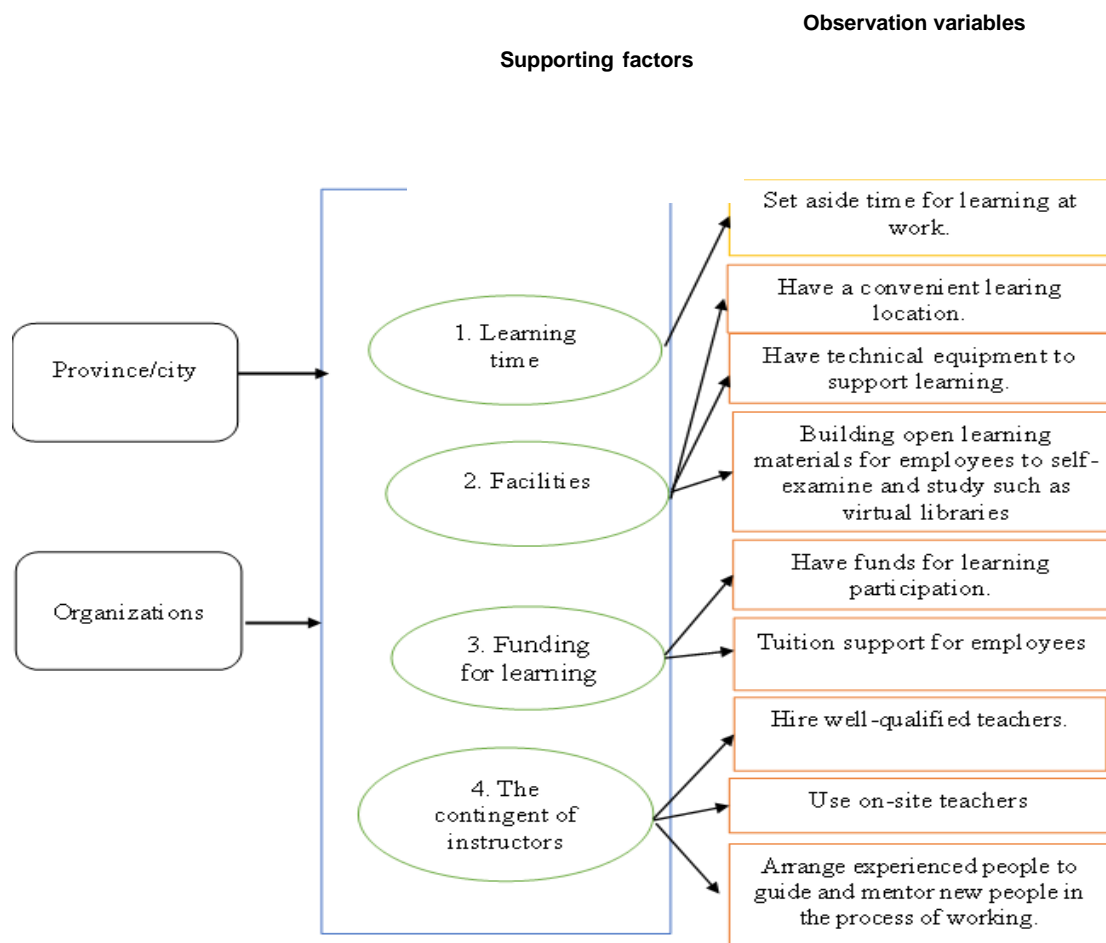


Figure 1: Transformation model for analyzing sub-samples.

4.2. Choosing the sample

Scope of the survey: The research team conducted a direct survey by questionnaire with 266 workers in three provinces/cities including Hanoi City, Vinh Phuc, and Quang Ninh Provinces. Hanoi City represents the delta urban development, Vinh Phuc Province represents the Northern Midlands, and Quang Ninh Province represents the Northern Coastal region. Three organizations of each province/city were surveyed including one people's committee, one school, and one company. The People's Committee represents the administrative sector, the school represents the education sector, and the company represents the business sector.

Survey subjects: Employees are officials and employees of the People's Committees of wards, districts, and districts; teachers at Primary Schools, Secondary Schools, and High Schools; workers, employees of the company.

Many respondents belonged to schools (44%), especially 39.1 % from the Northern Midlands. The research questions that were answered by workers were combined with descriptive and quantitative analysis.

Table 1. Illustration of the distribution of workers by province/city and Organizations

Variable	Quantity	Percentage (%)
Province/city		
Ha Noi	88	33.1
Quang Ninh	74	27.8
Vinh Phuc	104	39.1
Organizations		
People's Committee	77	29.0
School	117	44.0
Company	72	27.0

4.3. Questionnaire

The research team developed questionnaires to explain the factors supporting workplace learning with four main factors: (1) Learning time, (2) Facilities, (3) Funding for learning, and (4) The contingent of instructors. This study hypothesizes that all organizations have factors supporting workplace learning. Besides, workers in different provinces/cities, working in different organizations have different factors affecting support their workplace learning. This questionnaire was carried out in 2 steps.

First, employees were asked to indicate factors that their organizations carry out to support workplace learning. From the 4 main factors above, the researchers designed the question with 9 supporting variables including 1. Set aside time for learning at work; 2. Having convenient learning locations; 3. Having technical equipment to support learning; 4. Building open learning materials for employees to self-examine and study such as virtual libraries, 5. Having funds for learning participation (compensating for time off work to attend school); 6. Tuition support for employees; 7) Hiring qualified teachers to train workers in the workplace; 8) Using on-site teachers (mobilizing experienced people) to teach; 9) Arrange experienced people to mentor new people during the working process. The first question offers two options: a. Organizations do not have factors supporting workers learning in the workplace; b. Organizations already have factors supporting workers to learn in the workplace. With this content, descriptive and quantitative analyses were combined.

Second, workers who said their organizations already had factored in supporting workplace learning continued to answer a second question assessing their organization's support level for workplace learning. The question still gives 9 variables supporting workplace learning. These variables are asked in the form of a Likert 5 on a 4 levels scale from Absolutely inappropriate to Absolutely appropriate. The meaning of the levels is as follows: 1.0 - 1.8: Absolutely Inappropriate, 1.81 - 2.6: inappropriate, 2.61 - 3.4: neutral, 3.41 - 4.2: appropriate, 4.21 - 5.0: Absolutely

appropriate.

The criteria for evaluating the scale in this second step include scale reliability and validity. Reliability was assessed by Cronbach's Alpha coefficient above 0.7 and variable-total correlation coefficient of more than 0.3 (Nunnally & Bernstein, 1994).

4.4. Data Analysis

The processing of quantitative statistical data is carried out using SPSS software. The process of processing will be carried out mainly by descriptive statistical methods. The calculated values include the number and percentage of the levels in the respondent's answer according to the scales in the questionnaires; The average values of the degrees are calculated; One-Way ANOVA Accreditation; Correlate Bivariate; These results allow to make comments and compare differences between provinces/cities and between different Organizations.

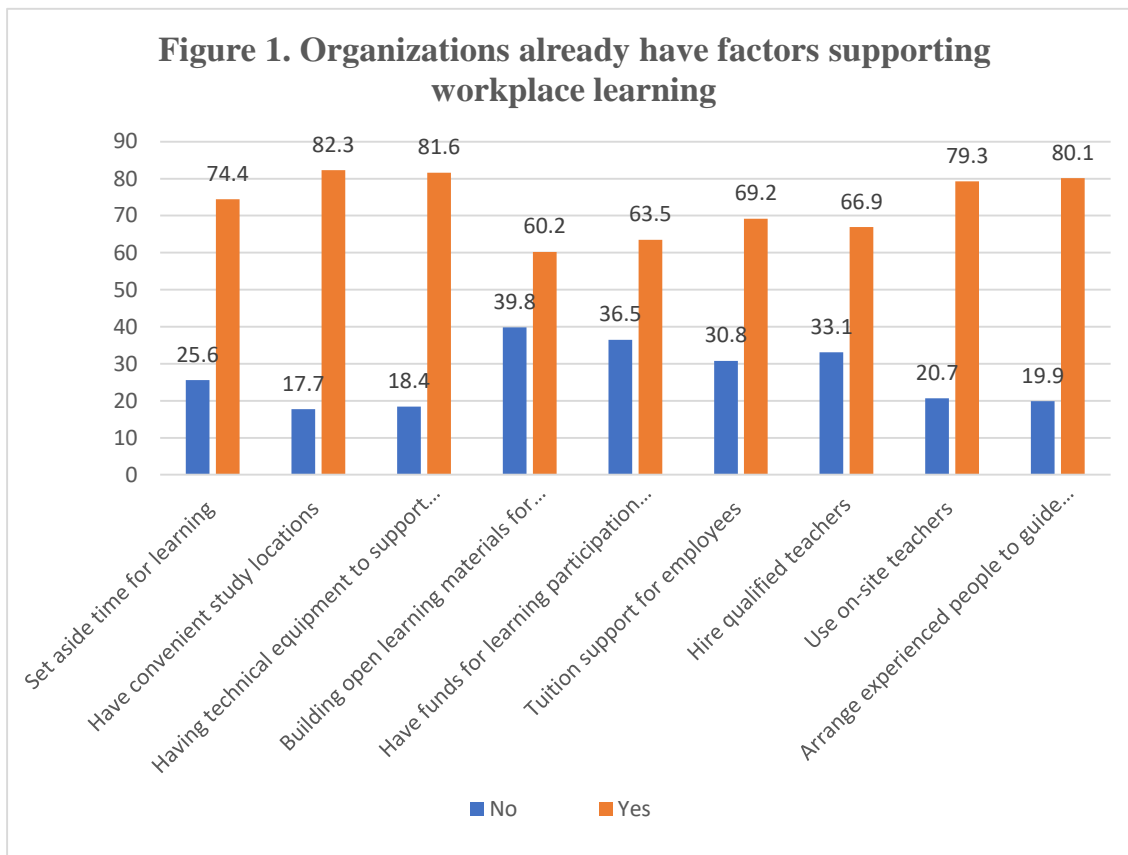
4.5. Research results

4.5.1. Factors Supporting Workplace Learning.

Feedback on factors that the organizations carry out to support workplace learning is collected in quantity and scale. The results are shown in Figure 1. The organizations already have factors supporting workplace learning.

The number of survey participants includes 226 people, factors supporting workplace learning arranged by organizations in order of priority as follows:

- 1) Have convenient learning locations (82.3%)
- 2) Having technical equipment to support learning (81.6%)
- 3) Arrange experienced people to guide and mentor new people during the working process (80.1%)
- 4) Use on-site teachers (79.3%)
- 5) Set aside time for learning (74.4%)
- 6) Tuition support for employees (69.2%)
- 7) Hire qualified teachers (66.9%)
- 8) Have funds for learning participation (offset for time off work to attend school (63.5%)
- 9) Building open learning materials for employees to self-examine and study such as virtual libraries (60.2%).



Continuing to assess the suitability of factors supporting workplace learning on a four levels scale, employees indicated that their organizations had factors supporting workplace learning. Table 2 shows all respondents were chosen from 3.41 to 4.2. Thus, all factors supporting learning in the workplace are assessed at the 4th level-appropriate. The variable of having a convenient learning location is rated the highest by employees (3.87), the variable of Building open learning materials for employees to self-examine and study such as virtual libraries (3.44), and tuition support for employees (3.46) occurs the lowest percentage.

The Cronbach's Alpha test results of the scale in Table 2 show that these scales of factors supporting workplace learning are guaranteed and highly reliable (Cronbach's Alpha coefficient is equal to 0.888 and the observed variables are variable correlation – the sum is greater than > 0.3). Thus, the criteria given are correlated with each other and describe well for assessing the appropriateness level of factors supporting workplace learning.

Table 2. The appropriateness levels of factors supporting workplace learning.

Supporting factors	N	Mean	Std. Deviation	Cronbach's Alpha if Item Deleted
Learning time				
Set aside time for learning at work	198	3.66	0.880	0.869
Facilities				
Have a convenient learning location	219	3.87	1.003	0.881
Have technical equipment to support learning	217	3.62	.926	0.870
Building open learning materials for employees to self-examine and study such as virtual libraries.	160	3.44	1.137	0.872
Funding for learning				
Have funds for learning participation (compensate for time off work to attend school)	169	3.51	1.196	0.884

Tuition support for employees	184	3.46	1.191	0.870
The contingent of instructors				
Hire well-qualified teachers	178	3.57	1.154	0.865
Use on-site teachers (mobilize experienced people)	211	3.73	1.086	0.879
Arrange experienced people to guide and mentor new people in the working process	213	3.79	0.884	0.886

4.5.2. Differences in factors supporting workplace learning between provinces/cities and Organizations.

a) Differences in factors supporting workplace learning between province/city

To discover the differences in the province/city in terms of factors supporting workplace learning, we apply for the ANOVA One-way accreditation. Table 3 shows Sig testing the Levene of variables "dedicated Set aside time for learning at work; have convenient learning locations; have funds for learning participation; tuition support for employees; arranging experienced people to guide and mentor new people in the working process" has a Sig > 0.05. Thus, there is no difference between provinces and provinces/cities on the above variables.

Table 3. Test of Homogeneity of Variances

Supporting factors	Sig
Learning time	
Set aside time for learning at work	0.088
Facilities	
Have a convenient learning location	0.336
Have technical equipment to support learning	0.000
Building open learning materials for employees to self-examine and study such as virtual libraries.	0.018
Funding for learning	
Have funds for learning participation (compensate for time off work to go to school)	0.419
Tuition support for employees	0.530
The contingent of instructors	
Hire well-qualified teachers	0.002
Use on-site teachers (mobilize experienced people)	0.008
Arrange experienced people to guide and mentor new people in the working process.	0.108

Test result F in Table 4. ANOVA's variables "dedicate set aside time for learning at work, have a convenient learning location; have funds for learning participation; tuition support for employees; arranging experienced people to guide and mentor new people in the working process". As can be seen, in variables " have convenient learning locations; tuition support for employees; arranging experienced people to guide and mentor new one in the working process" has Sig test F > 0.05, accepting the H0 hypothesis, meaning that there is no F_HL average difference between provinces/cities. Hence, there is no difference in the above factors supporting workplace learning between provinces/cities. However, in the variable "have funds for learning participation (compensating for time off work to go to school)" there is an accreditation Sig of F < 0.05. Therefore, there are differences in factors supporting workplace learning between provinces/cities.

Table 4. ANOVA

Supporting factors	Sig
Learning time	
Set aside time for learning at work	0.268
Facilities	
Have a convenient learning location	0.494

Funding for learning	
Have funds for learning participation (compensate for time off work to go to school).	0.023
Tuition support for employees	0.060
The contingent of instructors	
Arrange experienced people to guide and mentor new people in the working process.	0.757

Variables of "having technical equipment to support learning, building open learning materials for employees to self-examine and study such as virtual libraries; hiring well-qualified teachers, using on-site teachers" have a Sig < 0.05 (table 3). Thus, there is a difference in variance between provinces/cities in these variables. The Welch accreditation results in Table 5 of the "have the technical equipment to support learning" variable show that the Welch Sig accreditation is equal to 0.292 > 0.05, meaning that there is no difference in F_HL between provinces/cities about this variable. Hence, there is no difference in satisfaction among workers in provinces/cities about this variable. The variables "building open learning materials for employees to self-examine and study such as virtual libraries; hire well-qualified teachers; use on-site teachers" have a Welch accreditation Sig < 0.05, meaning there is F_HL average difference between provinces/cities in these variables. As a result, there are differences in the level of satisfaction between workers in different provinces/cities.

Table 5. Robust Tests of Equality of Means

Supporting factors		Statistic ^a	df1	df2	Sig.
Learning time					
Set aside time for learning	Welch	1.236	2	117.646	0.294
Facilities					
Have a convenient learning location	Welch	0.715	2	129.248	0.491
Have technical equipment to support learning	Welch	1.241	2	135.709	0.292
Building open learning materials for employees to self-examine and study such as virtual libraries	Welch	4.148	2	96.094	0.019
Funding for learning					
Have funds for learning participation (compensate for time off work to go to school)	Welch	3.759	2	108.257	0.026
Tuition support for employees	Welch	2.677	2	116.695	0.073
The contingent of instructors					
Hire well-qualified teachers	Welch	3.475	2	109.283	0.034
Use on-site teachers (mobilize experienced people)	Welch	7.878	2	138.665	0.001
Arrange experienced people to guide and mentor new people in the working process.	Welch	0.402	2	134.784	0.670

The descriptive parameters of each province/city in Table 6 are shown in the variables "Set aside time for learning at work; have convenient learning locations; have the equipment to support learning; Use on-site teachers; Arrange experienced people to guide and mentor new people in the working process" with the average range of Hanoi City, Vinh Phuc, Quang Ninh is from 3.41 – 4.2 (appropriate opinion). Thus, workers in Hanoi, Vinh Phuc, and Quang Ninh feel satisfied with these variables supporting workplace learning. However, variables on "building open learning materials for employees to self-examine and study such as virtual libraries; have funds for learning participation; tuition support for employees; hiring qualified teachers" with the value of submission of Vinh Phuc province is from 2.61-3.4 (neutral opinion); the average value of Hanoi and Quang Ninh cities is from 3.41-4.2 (appropriate opinion). Hence, workers in Vinh Phuc feel normal with these supporting factors. On the other hand, Workers in Hanoi and Quang Ninh feel satisfied with these ones.

Table 6. Descriptives

Supporting factors	Ha Noi		Vinh Phuc		Quang Ninh	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Learning time						
Set aside time for learning at work	3.69	0.815	3.53	0.959	3.79	0.849
Facilities						
Have convenient learning locations	3.80	1.055	3.97	0.976	3.81	0.971
Have technical equipment to support learning	3.49	1.108	3.65	0.797	3.75	0.792
Building open learning materials for employees to self-examine and study such as virtual libraries...	3.62	1.319	3.15	1.004	3.67	1.004
Funding for learning						
Have funds for learning participation (compensate for time off work to go to school)	3.75	1.129	3.20	1.218	3.67	1.167
Tuition support for employees	3.59	1.102	3.20	1.258	3.67	1.160
The contingent of instructors						
Hire well-qualified teachers	3.72	1.092	3.25	1.325	3.79	0.888
Use on-site teachers (mobilize experienced people)	3.69	1.109	3.46	1.160	4.11	0.839
Arrange experienced people to guide and mentor new people in the working process.	3.80	1.111	3.73	0.858	3.84	0.597

b) Differences in factors supporting workplace learning between the Organizations

To find out differences in factors supporting workplace learning between the Organizations, we apply for the One-way ANOVA accreditation. Table 7 shows that the Levene test sig > 0.05. As such, there is no variance difference between organizations in terms of factors supporting workplace learning.

Table 7. Test of Homogeneity of Variances

Supporting factors	N	Mean	Sig
Learning time			
Set aside time for learning at work	198	3.66	0.375
Facilities			
Have a convenient learning location	219	3.87	0.801
Have technical equipment to support learning	217	3.62	0.286
Building open learning materials for employees to self-examine and study such as virtual libraries...	160	3.44	0.142
Funding for learning			
Have funds for learning participation (compensate for time off work to go to school)	169	3.51	0.171
Tuition support for employees	184	3.46	0.157
The contingent of instructors			
Hire well-qualified teachers	178	3.57	0.088
Use on-site teachers (mobilize experienced people)	211	3.73	0.984
Arrange experienced people to guide and mentor new people in the working process	213	3.79	0.212

Test result F in Table 8. ANOVA showed that the variables of "learning time, the contingent of instructors " have a Sig test of F > 0.05, accepting the H0 hypothesis, meaning that there was no F_HL mean difference between these

Organizations. Hence, there is no difference in factors supporting workplace learning between organizations in the above variables.

However, in two factors "Have a convenient learning location and funds for learning participation (compensating for time off work to go to school)" have $F < 0.05$ Sig accreditation. Hence, there are differences in these 2 variables between Organizations.

Table 8. ANOVA

Supporting factors	Sig
Learning time	
Set aside time for learning at work	0.353
Facilities	
Have convenient learning locations	0.397
Have technical equipment to support learning	0.001
Building open learning materials for employees to self-examine and study such as virtual libraries...	0.050
Funding for learning	
Have funds for learning participation (compensate for time off work to go to school)	0.034
Tuition support for employees	0.056
The contingent of instructors	
Hire well-qualified teachers	0.130
Use on-site teachers (mobilize experienced people)	0.074
Arrange experienced people to guide and mentor new people in the working process	0.108

The mean (M) and standard deviation (SD) values of each group are illustrated in Table 8. Regarding the factor supporting workplace learning variables "Set aside time for learning at work", "Using on-site teachers", and "Arranging experienced people to guide and mentor new people in the working process" have the average value in the range from 3.41 - 4.2 (appropriate opinion), which means that despite being in different Organizations, workers feel good about the variables supporting workplace learning.

Through the results of the M value in Table 9, the variables of factors supporting workplace learning "Have technical equipment to support learning" and "Building open learning materials for employees to self-examine and study such as virtual libraries..." have different assessments. The average values of schools and people's committees range from 3.41 - 4.2 (appropriate). The average value of the company is 2.61-3.4 (neutral opinion). Thus, employees at schools and people's committees feel satisfied while employees at the company have a neutral attitude toward these variables supporting workplace learning.

The results of the M value audit in Table 9 show that the variables of factors supporting workplace learning "funding for learning participation" and "tuition support for employees" have different assessments. The average value of People's Committees and companies ranges from 3.41 - 4.2 (appropriate). The school's average value of 3.27 is in the neutral range. Thus, employees at the company and the people's committee feel satisfied, while employees at school have a neutral attitude toward these variables of factors supporting workplace learning.

The variable "Hire well-qualified teachers" has an average value of varying degrees. The average value of the school and the people's committee is in the range of 3.41 - 4.2 (appropriate). The school's average value of 3.32 is in the neutral range. Hence, employees at schools and people's committees feel satisfied, while employees at the company have neutral options toward these variables supporting workplace learning.

Table 9. Average value

Supporting factors	Schools		Companies		People's Committee	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Learning time						
Set aside time for learning at work	3.67	0.853	3.51	0.767	3.75	1.005
Facilities						
Have a convenient study location	3.93	1.008	3.71	0.809	3.91	1.137
Have technical equipment to support learning	3.75	0.830	3.24	0.935	3.77	0.973
Building open learning materials for employees to self-examine and study such as virtual libraries...	3.51	1.066	3.00	1.287	3.63	1.113
Funding for learning						
Have funds for learning participation (compensate for time off work to go to school)	3.27	1.218	3.65	1.253	3.79	1.074
Tuition support for employees	3.27	1.279	3.47	1.063	3.77	1.113
The contingent of instructors						
Hire well-qualified teachers	3.53	1.240	3.32	0.818	3.80	1.182
Use on-site teachers (mobilize experienced people)	3.60	1.086	3.69	0.968	4.02	1.180
Arrange experienced people to guide and mentor new people in the working process.	3.82	0.811	3.59	0.848	3.92	0.989

5. Discussion

In Vietnam, organizations are aware of the importance of factors supporting workplace learning. Most organizations already have factors supporting employees to learn in the workplace. Billet agrees that factors supporting workplace learning will determine an individual's learning opportunities and the individual's level of engagement in learning in the workplace (Billet 2001, 2004).

As can be seen, the variables of "having convenient learning locations, having equipment to support learning, arranging experienced people to guide and mentor new people in the working process" have been carried out by organizations for learners. Variables "Building open learning materials for employees to self-examine and study such as virtual libraries...; having funds for learning participation (compensating for time off work to go to school)" have not been paid enough attention by organizations and have not provided much support to employees. Khoi Tran Nguyen's research also shows that the factors of equipment, information, and communication technology have not been interesting in organizations to meet requirements. Learning materials and funding for workplace learning are only at an average level (Khoi Tran Dang, 2021). Mr. Nguyen Thi Huong expressed his opinion that in the information technology era, workers can self-learning and self-foster through the Internet, "building open learning materials for employees to self-examine and study such as virtual libraries" is a necessary task (Mr. Nguyen Thi Huong, 2022). The factors of facilities, technical facilities, learning materials, Funding for learning, and the contingent of instructors greatly influence the workplace (Khoi Tran Dang, 2021). Hence, organizations need to pay more attention to these factors to meet the current social context.

Our research shows that workers in organizations highly value the learning location factor. In Khoi Tran Dang's research, the factor of time and place to learn at the workplace was also evaluated well, suitable for learners (Khoi Tran Dang, 2021). A place of learning and thinking is needed (Paivi Tynjala, 2008). Having an appropriate learning environment contributes to promoting workplace learning. Furthermore, this factor has been a concern in recent decades (Nicholas Clarke, 2005).

The factor of spending time learning in the workplace is also appreciated by interested organizations and employees. Employees need to have a plan fulfilling knowledge and skills as organizations will create favorite conditions for them to learn (Fuller & Unwin, 2004).

Different organizations also have differences in factors supporting workplace learning (Fuller, 2004). In our study, two factors “having convenient learning location and funding for participation” differed between schools, People's Committees, and companies. Facilities Factor – “building open learning materials for employees to self-examine and study such as virtual libraries...and the contingent of instructors (hiring well-qualified teachers, using on-site teachers)” differ in appropriateness levels between provinces/cities.

CONCLUSIONS

In this paper, we have examined the factors supporting workplace learning in different organizations by analyzing the research results of these organizations' learners. This study has achieved some results as follows:

(1) The study identified organizations in different fields: administrative, career, education, and business. All organizations have factors supporting workplace learning with specific variables. These organizations have paid attention to and taken actions to support workplace learning for employees, contributing to promoting lifelong learning and building a learning society.

(2) The support level of the variables is appropriately assessed by the employee. This proves that the factors of time, facilities and equipment, funding for learning, and the contingent of instructors are necessary for studying in the workplace. However, there are differences in the level of support between variables. That difference shows the status and potential of the surveyed organizations. The organizations pay attention and focus on promoting available factors to support the learning of employees, reflected in the variables "having convenient learning locations", "having equipment to support learning", and "arranging experienced people to guide and mentor new people in the working process". Employees highly appreciate the variable "have convenient learning locations". However, the variables " Building open learning materials for employees to self-examine and study such as virtual libraries..." and "tuition support for employees" are assessed at a lower level, which may be the difficulties and limitations that organizations are facing in improving the quality of workplace learning for employees.

(3) The supporting level for factors varies between provinces and cities. This difference is suitable to the conditions, potentials, and development levels of the surveyed localities. For provinces and cities with higher levels of development, the factors of facilities and teaching equipment with the variables: " Building open learning materials for employees to self-examine and study such as virtual libraries..." and funding factors with the variables "Have funds for learning participation"; "tuition support for employees"; "Hiring qualified teachers" is highly appreciated by workers, meaning that these provinces and cities have supported workplace learning well. And vice versa, localities with more limited socio-economic conditions have less funding for factors “Building open learning materials for employees to self-examine and study such as virtual libraries...” as well as

“have funds for learning participation” for workers. For these reasons, this can be the basis for proposing specific solutions for each locality with different socio-economic contexts.

(4) Another finding of this study is that the supporting level for variables of different factors varies between organizations, professions, and fields of socio-economic life. The variables of “learning time” and “the contingent of instructors (on-site teachers, experienced people)” are highly appreciated by workers. The rest of the variables have different assessments. When it comes to factors of “facilities” and “the contingent of instructors (hiring teachers)” are highly appreciated by the school and the people's committee, while the "funding for learning" factor with the variables "funding for learning participation", tuition support for employees" at the school is underestimated. Hence, the factor of funding for learning at schools is limited.

However, the scope of the study is just as provinces and cities representing the midlands and deltas, where many favorable factors support workplace learning and socio-economic development. Besides that, these

organizations are in the North of Vietnam, not covering the whole territory of Vietnam. While in mountainous areas, where there are still many difficulties and weaknesses in terms of economy, society as well as learning support at the workplace. Moreover, in Central and Southern Vietnam provinces and cities, the economic and social characteristics are not the same. One question arises: are the findings in this study on factors supporting workplace learning representative of the overall situation in Vietnam? The findings of the variables " Building open learning materials for employees to self-examine and study such as virtual libraries..." have not been invested. Is this the difficulty of building a learning society in Vietnam in general and in the workplace in particular? This difficulty is evident when the 4th industrial revolution and the knowledge economy develop strongly. However, this question cannot be confirmed because there are many issues related to digital transformation and funding in building a learning society. The purpose of the "funding support for learning" factor is different (funding for direct support for learners, funding for the contingent of instructors, funding for building facilities, technical equipment, and creating a good learning environment). The funding factor in this study directly supports workers' education. The other purpose of funding within the scope of this topic has not been mentioned. Therefore, from the above limitations, this study has orientations for further studies on factors supporting workplace learning. It is to expand the scope of the research to have an overview of factors supporting workplace learning, and the current situation of learning in the workplace in general. Moreover, from the findings of this study, future studies need to better understand the current situation of digital transformation and funding for lifelong learning and building a learning society in Vietnam.

ACKNOWLEDGMENT

This product belongs to project B2022-VKG-13.

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DOI: <https://doi.org/10.15379/ijmst.v10i2.1513>

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