International Journal of Multidisciplinary Research and Growth Evaluation.

Building and promoting a self-learning environment in businesses, from theory to practice at commercial enterprises in Hanoi, Vietnam

Hoàng Thị Trang Nhung
Department of Science, Strategy and History of Public Security, Ministry of Public Security, Vietnam

* Corresponding Author: **Hoàng Thị Trang Nhung**

Article Info

Abstract
Building and promoting a self-learning environment in businesses directly impacts human resource development. Employees with the ability to self-study will develop personal capacity, develop their career, manage work performance well and promote organizational development. This article was conducted to evaluate the current status of the ability to build and promote a self-learning environment in commercial enterprises in Hanoi. The research object is the self-learning ability of e-commerce human resources. The research methods used are document review method, group discussion method and questionnaire survey method. The research results clearly indicate the need for better solutions in building and promoting a self-learning environment in Hanoi's commercial enterprises.

1. Introduction

E-commerce human resources are specific human resources, associated with e-commerce activities in enterprises. Along with the development of science and technology, the application of electronic media and the internet is taking place in all business processes of enterprises. Therefore, e-commerce changes the way tasks and work are carried out, including the way organizations perform human resource management functions at businesses. E-commerce applications in business operations originate from the application of networks and electronic means to change the way of interacting with customers, trading and selling products and tangible goods. After that, electronic media and networks are applied in implementing the core management functions of businesses from production, distribution, marketing, sales and operations management. E-commerce applications also allow businesses to create new products and services, improving organizational performance. At the highest level, e-commerce applications allow businesses to transform their business models, creating new business models such as improving customer experience and simplifying operations. From the initial purpose of changing the way of interacting with customers, e-commerce applications help organizations change the way of creating value based on the impact of electronic technology; managing changes in organizational structure; optimize organizational processes with the goal of operational excellence using data-driven workflows; Use technology to improve your business's performance or reach. The human resources that carry out these processes are called e-commerce human resources. The knowledge, skills, and attitudes of this human resource determine the ability to deploy e-commerce activities at the enterprise, thereby greatly affecting business efficiency. Conceptually, e-commerce human resources are understood as all the knowledge, skills, experience, capacity, and creativity of people that create the workforce working in the e-commerce field of an enterprise; They participate in the enterprise's e-business process, helping businesses achieve their goals with high results and efficiency. The ability to apply e-commerce to business operations depends on many factors, including three core factors: technology, resources (finance), and people.

Developing e-commerce human resources is the direction of many businesses in Vietnam. Businesses carry out e-commerce human resource development operations as a way to respond to the shortage of human resources that the market cannot provide.

This is also the optimal solution to achieve the goal of integrating e-commerce into the enterprise's business activities. (Jerry W Gilley, Steven A. Eggland, 2002) [9] believes that human resource development needs to be based on four pillars: personal development, career development, performance management and organizational development. These activities are closely related to the ability of human resources to self-study and self-study because if human resources have the ability to self-study, they will develop their own abilities, advance further on their career path, and improve their efficiency productivity and thus impact organizational development. Therefore, businesses need to invest in building and promoting a self-learning environment for human resource development. This article was conducted to research the possibility of building and promoting a self-learning environment in businesses. The target audience is the e-commerce human resources group. The scope of research is Hanoi's commercial enterprises. The purpose of the article is to explore the current state of the ability to build and promote a self-learning environment in businesses and provide appropriate comments.

2. Theoretical basis
Human resource development strategies are pursued by many businesses because human resources are the resources that can create competitive advantages for businesses. Businesses can create outstanding changes in competitiveness, labor productivity, and business efficiency through human resource development measures. Research by (L. Nadler and Z. Nadler, 1989) [10], (Malik *et al*., 2022) [11], (Tang *et al*., 2018) [20], (Das & Sreelakshmi, 2021) [5], (Hamod & Majeed, 2021) [8] deals with that education and training have an impact on HRD. David Mc Guire and Kenneth Molbierg Jorgensen (2011) believe that leaders can apply different forms to develop human resources in the organization, however, effective human resource development needs to be based on the training process. . The author has pointed out 8 contents that organizations need to implement to develop human resources including: learning theory, combining knowledge and skills, converting training forms, level of learner participation, and timing. Learning initiation, cost responsiveness, and interpersonal interactivity. Chartchai Na Chiangmai (2003) believes that energy development needs to ensure four main contents: (1) Interactive learning through activities to develop human abilities and potential; (2) The learning process should take place within the context of an organization and community; (3) Learning activities need to be effective, productive and harmonious; (4) Personal goals and organizational and community goals should be consistent with each other. Although many studies show that businesses can develop human resources through investing in education and training, some studies also promote self-study of employees. Recent research and practice on human resource development refers to building and promoting a self-learning environment as an effective way to develop individual workers. Human resource development over time and through the challenges of society, has undergone a number of changes that have given rise to the need to propose new strategies and resources to promote, encourage and enhance learning, turning it into a meaningful and enriching experience for the various stakeholders in the process. Therefore, building and promoting a self-learning environment in businesses is proposed. Instead of organizing training classes, businesses can achieve the goal of human resource development through forming employees' self-learning capacity with strategic solutions to build and promote a self-learning environment in organizations Ofstein & Renko (2011) [15], Bandura (1989), Oakley & Lisa., (2004) [13], Ofstein and Renko (2011) [14], Mcleod (2011) [12], Ormrod (2006), Cherry (2012) [3], Choi (2009) [6], Dewey (1938), Brockett and Hiemstra (1991) [2]; and Gibbons (2002) [7]. Gibbons (2002) [7] believes that one of the factors of business success is the existence of self-learning, which means the self-increase of knowledge, abilities and personal development of employees. Each individual chooses and determines their own learning goals and tries to use methods that support their activities to better meet job requirements and develop their own career. The concept of self-learning has also been developed along with the expansion of research on the self-learning ability of workers. According to Gibbons (2002) [7], self-study is an increase in knowledge, ability or personal development. (Apriyani *et al*., 2019) [1], Bandura (Mcleod, 2011) [12] defines self-learning as an observational learning process in which a person learns behavior by systematically observing rewards and punishment for others. People can self-study and improve personal capacity through practical observation, which is the process of paying attention, remembering, recreating and developing. In organizational behavior, self-learning is an internal process that will influence individual behavior and the ability of individuals or organizations to achieve goals (Ormrod, 2006). Additionally, some literature (Rae, 2005; Rae, 2004; Prasad, 2004; Ofstein and Renko, 2011) [15] recommends the theory of social learning and experience as a model of self-study. Research results show that self-learning is a continuous interaction between cognitive, behavioral and environmental factors. Self-learning environments refer to creative spaces that encourage knowledge creation through the integration of different elements, both educational and technological, while allowing learners to gain control over the learning process. so they can achieve their own goals, manage their work, and communicate with others. Cabero *et al*. (2011) suggest, regarding the origins of self-learning environments, that there are two approaches, one pedagogical and one technological. Pedagogy is understood as a change in training methods to promote self-learning through the use of resources available online. It is a system that focuses on the learner and allows learners to take control of their learning process to set their own goals, manage their learning process and communicate with others. The technological method is based on the application of technology to create an environment that supports learners' self-study. This method uses and allocates information and communication technology (ICT) as a tool for learning, creativity and science, technological and cultural advancement, so that it enables human development and Actively participate in the knowledge society. Building and encouraging a self-learning environment in an enterprise, if successful, will create continuous changes in the quality of the enterprise's human resources. Training results can exceed business expectations and job requirements because learners' initiative and creativity are promoted. However, building and encouraging a successful self-learning environment is very difficult, requiring a set of efforts from both businesses and employees. On the business side, it is necessary to build a culture of self-study, encourage self-study to create innovation and creativity in the organization, and accept risks to apply the knowledge that employees learn on their own to practical work and use self-study ability as a criterion for

evaluating achievement. In addition, equipping workers with documents and tools for self-study is very important. This helps businesses achieve training goals and orient employees to self-study according to the organization's goals. For employees, to successfully create a self-learning environment for businesses, they must have the ability to self-study, proactively learn and devote the necessary resources for learning.

3. Research Methods
Literature review method
To form the theoretical basis and determine the research content, the author used the document review method. Research works by domestic and international authors related to the topics of self-study, building and promoting a self-study environment in businesses, and assessing the self-study ability of employees are highly appreciated by the author range, gather. After reviewing and gathering essential documents, the author reads, analyzes and classifies the documents to form the theoretical basis of the research. The documents are reviewed on three major topics: the nature of self-learning ability, the role of building and promoting a self-learning environment in businesses, and the relationship between building and promoting self-learning ability in businesses career with human resource development, criteria for evaluating the construction and promotion of a self-learning environment in businesses. Overview research helps the author recognize research gaps and shape the research direction of the article. More importantly, the literature review helps the author operationalize relevant concepts, form a research framework on construction content and promote a self-learning environment in businesses.

Group discussion method
Group discussion method is used to clarify the current situation of building and promoting a self-learning environment in commercial enterprises in Hanoi. To evaluate the current status of building and promoting a self-learning environment in commercial enterprises in Hanoi according to the established set of criteria, the author conducted a questionnaire survey to collect information. The returned survey questionnaires were cleaned and processed using SPSS software version 22. The results of processing the survey questionnaires allowed the author to calculate criteria to evaluate the ability to build and promote a self-study environment according to the formula. Established formula for analysis and comment. However, to further clarify the current situation of building and promoting a self-study environment in Hanoi's commercial enterprises, the author used the group discussion method. A discussion with the participation of 35 members was held. In addition to the 5 members who are scientists in human resource development (who were interviewed to determine the appropriateness of the evaluation criteria), the discussion also had the participation of 30 other members who are human resource managers. officer, head/deputy head of human resources department or company director at commercial companies in Hanoi - the main people responsible for building and promoting a self-learning environment at commercial enterprises that the author surveyed closely at the enterprise. The discussion allowed the author to learn more information about the current status of building and promoting a self-study environment, clarifying the survey results obtained and also issues that the survey content did not fully cover.

Questionnaire survey method
This method is used to evaluate the current status of building and promoting a self-learning environment in Hanoi's commercial enterprises. The implementation process includes: developing a questionnaire, evaluating the questionnaire, surveying and collecting data, and processing survey results.

Build a questionnaire
After establishing the research purpose, research content, and evaluation criteria, the author determines the information that needs to be collected and the subjects who can provide appropriate information. To be able to provide this information, the author has built a survey toolkit with two forms, a business survey form and an employee survey form. With the business survey form: The original business survey form was built to include 2 parts. Part A describes general information about the business and questionnaire respondents find out general information such as business name, business lines, year of establishment, total number of employees, and some financial indicators according to the final report. Business results in the last 3 years and job position, training level, number of years working at the enterprise, etc. of the person answering the questionnaire. Part B asks about content related to building and promoting a self-learning environment in businesses.
With the e-commerce human resources survey: The purpose of this survey is to find out insiders' assessments of what they have done, what businesses support them and what can affect their ability to self-study. Surname. Like the business survey form, the e-commerce human resource survey form is divided into 2 parts. Part A describes the information of interviewees to find out information about job position, number of years of experience, age, gender, training level, etc. Part B asks about their assessment related to the activities to build and promote a self-learning environment in businesses.

Evaluation of the questionnaire
The questionnaire was built in detail with each question and answer options for each question to facilitate respondents in choosing the most suitable option. The questions are designed to suit the research purpose and the information that needs to be exploited for the research. The process of completing the questionnaire involved consultation with instructors and a number of experts who are human resource managers in commercial enterprises.
Before going into the official survey, a demo survey was conducted to evaluate the feasibility of the questionnaires. The purpose of this content is to consider whether the respondent is able to provide and answer all the necessary information? How reasonable are the designed questions? Are the answers contradictory? Is the survey data consistent with the built research model? The demo survey was conducted with both questionnaire forms: enterprise questionnaire and employee survey questionnaire. The business survey was conducted in three companies. Questionnaires distributed to personnel were also carried out at the companies where the author surveyed business questionnaires. The total number of survey questionnaires for demo workers in 3 commercial companies in Hanoi is 30. The author's direct survey with respondents allows the author to clearly explain the purpose of the survey as well as the content of the questions and Increase respondents'

responsibility in answering questionnaires. The survey results allowed the author to correct some sentence and typing errors accordingly, ensuring both scientificity and the exploitation of necessary information for the research.

Survey and collect information

After being edited, the questionnaire was printed to serve the official survey. Because there is no complete statistical data on the scale of e-commerce human resources working at Hanoi's commercial enterprises, the author used the formula to determine the sample according to Yamane Taro (1967).

$$n = Z^2 \times \frac{p \times (1-p)}{e^2}$$

In there:

n: sample size to be determined.
Z: value to look up the Z distribution table based on the selected reliability. In this study, the confidence level used is 95% corresponding to $Z = 1.96$.
p: rate of successful estimation of sample size n. The author chooses $p = 0.5$ so that the product p(1-p) is the largest (the sample size is the largest), this ensures safety for the estimated n sample.
e: allowable error. The author uses an allowable error of 5%, equivalent to $e = \pm0.05$
Accordingly, the sample size chosen is: 385.16 rounded to 385 votes.

The determination of businesses participating in the survey was done based on the list of commercial enterprises being managed by the Hanoi Department of Industry and Trade. 48 businesses in the districts of Hanoi were selected to conduct the survey, each business surveyed 8 e-commerce human resources working in the following positions: IT staff, online sales staff; online marketing staff; network administrator, building commercial transaction systems, online business or staff planning projects, planning information technology development policies at commercial enterprises. The survey process is carried out directly at businesses with the support of human resources directors or heads/deputy heads of human resources departments at businesses throughout February and March 2023.

Processing survey results

The collected survey forms are screened and cleaned for processing. Because the author surveyed directly at each enterprise, there were no cases of answer sheets lacking information or leaving sections that needed to be answered blank. Therefore, all 385 votes were processed. Survey data was processed using SPSS 22 software, however, before processing with the software, the author entered the questionnaires into an Excel table for convenience in data entry. To analyze the current status of e-commerce human resource development at commercial enterprises in Hanoi, the author uses descriptive statistics to analyze survey results. Statistics of responses also allows the author to calculate criteria for evaluating e-commerce human resource development at Hanoi's commercial enterprises according to previously developed criteria. It allows the author to have a

basis to provide analysis and comments on the current state of human resources development at Hanoi's commercial enterprises.

4. Research results and discussion

Building and promoting a self-learning environment in businesses at Hanoi's commercial enterprises has many advantages. First of all, e-commerce human resources in Hanoi commercial enterprises are mainly young human resources, they have the ability to self-study and research. Second, due to frequent work with technology, e-commerce human resources in Hanoi commercial enterprises have the ability to exploit and learn about rich sources of documents in the internet environment. Today, the internet is considered a giant library, which can provide a vast source of knowledge for people, without limiting the field of knowledge, origin, or language used. Unlike real libraries, internet libraries allow people to access them anywhere, anytime as long as they have an internet connection. This helps e-commerce human resources more conveniently access knowledge. Finally, the method of managing work performance in Hanoi's commercial enterprises shows that most businesses apply salary based on KPI, so human resources have to find ways to improve work efficiency. 91.95% of e-commerce human resources surveyed said they were managed with work performance and motivated to improve work performance. The way performance management is done is different in different businesses, and can be done by employees, team managers, direct management department heads, and senior managers. or human resource management specialists. Tools used in performance management also vary by business such as job analysis, planning systems, performance evaluation systems or management by specific goals. . Particularly for e-commerce human resources, two commonly used systems are job analyzes and performance evaluation systems. The performance appraisal system used forces human resources to find ways to improve job performance. One of the popular methods is self-study, self-research, and self-development of one's own abilities. Finally, in a knowledge society, improving self-learning ability for workers is considered an essential need to improve the quality of human resources. The e-commerce industry is a fast-changing industry with the frequent emergence of new knowledge. To be successful in this field, workers must be able to self-study. Businesses are also clearly aware of the benefits of self-study and self-research, so they regularly promote a self-study environment in their businesses and gain many encouraging achievements. Hanoi's commercial enterprises are quite successful in building a self-learning environment in their businesses. 77.4% of respondents said that they were encouraged by the company to self-study to meet job requirements while the proportion choosing the no option was 2.08% and the don't know option was 20.52%. Employees responsible for online marketing, network administration, network security, and online business system design must regularly self-study to meet job requirements. The survey results also show that the number of e-commerce employees who always self-study is 30%; regularly self-study is 49% while the proportion of employees who occasionally self-study is 14%; rarely 8% and there is no case of not self-study. As follows:
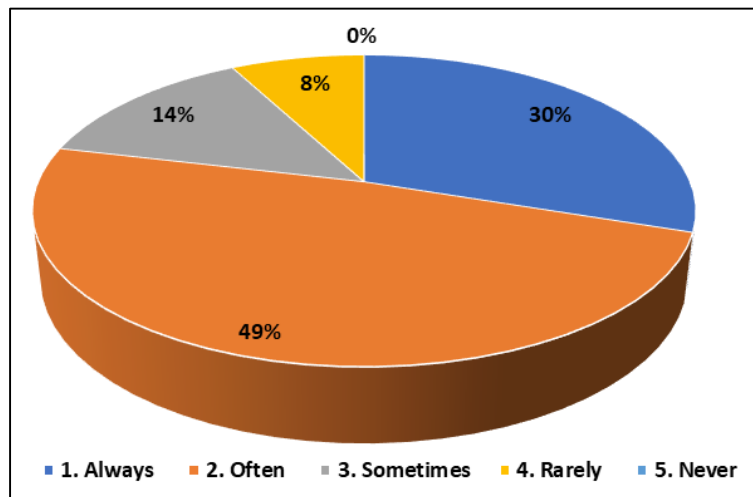
Fig 3: Percentage of employees who regularly self-learning

Evaluation of e-commerce human resources on the ability to build and promote a self-learning environment in businesses gives the following results:

Table 1

No.	Comment	Completely disagree	Disagree	Acceptable	Agree	Completely agree
1	The company always encourages employees to self-learning	0	0	6.49	76.1	17.4
2	The company provides new documents and knowledge for employees to self-learning	0	0	8.31	77.4	14.29
3	The company built an online lecture system for employees to self-learning	0	11.69	13.25	70.13	4.94
4	The company always encourages employees to create innovation and creativity at work	0	3.38	8.83	72.47	15.32
5	The company always accepts risks when employees apply self-learning knowledge to work	0	13.25	16.1	56.36	14.29
6	The company uses the self-learning ability of its human resources as a criterion for evaluating performance	0	15.84	17.92	63.12	3.12

From the above data, it shows that 93.5% of respondents said that their company always encourages employees to self-study; 91.69% think that the company provides new materials and knowledge for employees to self-study, although only 66.24% think that the company uses employees' self-study ability as a criterion for evaluating success accumulation. In addition to creating conditions for employees to self-study, the company also stimulates the self-learning spirit of employees by encouraging employees to be creative and innovative at work and to accept risks in the case of innovation and creativity of employees does not bring the desired results.

Hanoi's commercial enterprises choose to build a self-study environment in their businesses because this form of training is highly feasible in the current context. First of all, the e-commerce workforce is a young workforce, with a large proportion of human resources under the age of 40, so they have the ability to self-study and research. This group of workers is also quick with the internet and cyberspace; they can easily access learning applications or online lectures. In addition, foreign language ability is also a determining factor in the success of self-study and self-research. Although self-study and lifelong learning are encouraged, the learning of e-commerce human resources still faces many difficulties and challenges. E-commerce human resources shared that they encountered many difficulties in the self-study process because the work pressure was quite large and their ability to

self-understand new knowledge was limited. Learning has the benefits of improving work performance, connecting employees with the business, and increasing employee flexibility to better meet market needs. Therefore, if you receive focused training, the training will be more effective than self-study.

Although there are many encouraging results, Hanoi businesses need to further promote the building of a learning society in businesses, considering learning as a lifelong task for employees. To harness workspaces as spaces for lifelong learning, redesigning and revitalizing workplace learning is key. To do so, Hanoi's MSMEs need to synchronously implement many different solutions. First of all, encouraging employees to self-study needs to be specified in the company's development policy. It needs to be considered as a core value the company should pursue. Self-study also needs to be included in the company's internal regulations, with accompanying reward and discipline mechanisms to formalize the self-study and lifelong learning tasks of employees. This acts as a sanction that both forces and encourages the ability to self-study. Next, it is necessary to build a culture of self-learning and self-development at the enterprise. In addition to propaganda and education measures to raise awareness for workers, businesses need to have policies to create an environment for workers to practice what they learn. Support for space, finance, and facilities will help workers be more confident with what they learn. Finally, the

key point in building and promoting a self-learning environment in businesses is to help employees see the further benefits of self-learning. It is self-esteem, a career opportunity, a career path, and great contributions to businesses and society. When workers understand that self-study brings both immediate and long-term benefits, they will self-study. Learning at work is an important driver of lifelong learning and is becoming increasingly important, considering the constantly changing nature of work and the changes taking place in the labor market. The conceptual integration of self-learning into a culture of lifelong learning supports employees' self-learning paths and pathways.

5. Conclusion
Self-study plays an important role in personal development and the development of the organization's human resources. It is also the way to realize the goal of lifelong learning launched by UNESCO. The article has achieved the research purpose set out in studying the theory of building and promoting a self-learning environment in businesses; Analyze the current situation and have discussions appropriate to the ability to build and promote a self-learning environment in Hanoi's commercial enterprises. Although we have the advantage of young human resources, capable of self-study, regular access to technology, and the ability to exploit limitless knowledge sources on the internet, the current status of self-learning ability of e-commerce human resources in commercial enterprises is Hanoi is still weak. Furthermore, commercial enterprises are not really interested in this issue. Only a few businesses consider self-study as an employee's task that needs to be used as a criterion for evaluating performance. Providing materials and documents for workers to self-study has not received adequate attention. In addition, Hanoi's commercial enterprises pay little attention to linking learning outcomes with workers' career paths, with the practical benefits they receive as well as with development goals of DN. Therefore, there need to be important policies and solutions to promote a self-learning environment in businesses.

6. References
1. Apriyani Y, Haryono S, EQ ZM. The Effect of Self-Learning, Entrepreneurship Competence and Entrepreneurship Orientation on Micro Business Performance in the Special Province of Yogyakarta. Journal of Economics and Sustainable Development. 2019;10(10):119-133.
2. Brockett RG, Hiemstra R. Self-direction in adult learning: Perspectives on theory, research, and practice. New York: Routledge; c1991.
3. Cherry K. Social Learning Theory: An Overview of Bandura's Social Learning Theory; c2012 [cited 2024 Jul 28]. Available from: http://psychology.about.com/od/developmentalpsychology/a/sociallearning.htm
4. Choi W. Influences of Formal Learning, Personal Characteristics, and Work Environment Characteristics on Informal Learning Among Middle Managers in the Korean Banking Sector [dissertation]. Columbus (OH): The Ohio State University, College of Education and Human Ecology; c2009. Available from: https://etd.ohiolink.edu
5. Das VT, Sreelakshmi A. Factors Contributing Green Human Resource Management: With Reference to Rashtriya Ispat Nigam Ltd., Visakhapatnam, AP, India. United International Journal for Research & Technology (UIJRT). 2021, 2(9).
6. Dewey J. Experience and Education. In: Choi W. Influences of Formal Learning, Personal Characteristics, and Work Environment Characteristics on Informal Learning Among Middle Managers in the Korean Banking Sector [dissertation]. Columbus (OH): The Ohio State University, College of Education and Human Ecology; 2009. Available from: https://etd.ohiolink.edu
7. Gibbons M. The Self Directed Learning Handbook: Challenging Adolescent Student to Excel. San Francisco: Jossey-Bass; c2002.
8. Rasool Majeed Hamod A, Majeed SA. Effect of green human resource management practices in enhancing sustainable competitive advantage: an exploratory study of a sample of hospitals. PalArch's Journal of Archaeology of Egypt/Egyptology. 2021;18(7):1169-1189.
9. Gilley JW, Eggland SA, AMG. Principles Of Human Resource Development. 2nd ed. New York: Basic Books; c2002.
10. Nadler L, Nadler Z. Developing Human Resources. 3rd ed. San Francisco/London: Jossey-Bass; c1989.
11. Malik A, Pereira V, Budhwar P, Froese FJ, Minbaeva D, Sun J, Nguyen AT, Xue S. Multilevel relational influences on HRM practices: A cross-country comparative reflective review of HRM practices in Asia. Asian Business & Management. 2022;21(5):745.
12. McLeod SA. Bandura Social Learning Theory [Internet]. 2011 [cited 2024 Jul 28]. Available from: http://www.learning-theories.com/social-learning-theorybandura.html
13. Oakley L. Cognitive Development. London: Routledge Taylor & Francis Group; c2004.
14. Ofstein L, Renko M. The Nature of Experience: A Social Cognitive Perspective on the Drivers of Entrepreneurial Intentions. Frontiers of Entrepreneurship Research; c2011. p. 31.
15. Ofstein L, Renko M. The Nature of Experience: A Social Cognitive Perspective on the Drivers of Entrepreneurial Intentions. Frontiers of Entrepreneurship Research. 2011;31.
16. Ormrod JE. Educational Psychology: Developing Learning. 5th ed. Ohio: Pearson; c2009. Ormrod JE. Psikologi Pendidikan Membantu Siswa Tumbuh dan Berkembang. Jilid 2. Jakarta: Erlangga; c2009.
17. Prasad CC. Human Resource Capacity Building Through Appreciative Inquiry Approach in Achieving Developmental Goal [dissertation]. Madison (WI): Madison University; c2004.
18. Rae D. Practical Theories from Entrepreneurs Stories: Discursive Approaches to Entrepreneurial Learning. Journal of Small Business and Enterprise Development. 2004;11(2):195-202.
19. Rae D. Entrepreneurial Learning: A Narrative-Based Conceptual Model. Journal of Small Business and Enterprise Development. 2005;12(3):323-335.
20. Tang G, Chen Y, Jiang Y, Paillé P, Jia J. Green human resource management practices: scale development and validity. Asia Pacific Journal of Human Resources. 2018;56(1). https://doi.org/10.1111/1744-7941.12147