

Cognition of Pedagogic University Lecturers on the Role of Capacity for Scientific Research in Education and Factors Affecting the Capacity for Scientific Research in Education of Pedagogic Lecturers in Vietnam

Le Thi Xuan Thu *

Department of Psychology – Education, Hung Vuong University, Phu Tho, Vietnam

*Corresponding author: lethixuanthu@gmail.com

Received January 27, 2018; Revised April 24, 2018; Accepted April 27, 2018

Abstract This article focuses on understanding the cognition of pedagogical university lecturers on the role of educational research capacity in training activities and their careers. The research was conducted on 294 lecturers, (aged 25-45 years old) in the pedagogical unit of Hung Vuong University and Thai Nguyen Pedagogy University. The main method used in this study was the questionnaire survey and the in-depth interview method to find out the lecturers' perceptions about the role of the academic research capacity of the university lecturers in the training and professional activities and encourage them to self-assess the level of their scientific research capacity through the manifestations of scientific research capacity at the following levels: weak, poor, average, pretty, good. 76% of the lecturers in the research sample is aware that the scientific research capacity in education plays a very important role in teaching activities and in their own career promotion. However, the research results show that the lecturers' educational research capacity is different, according to self-assessment results, 74% of the lecturers in the research sample self-assess their educational research capacity at average level. Basing on results collected from the survey, interviews with lecturers, managers of faculty and division, we found that the following factors: training and fostering ($\bar{X}=3.90$), lecturers themselves ($X=3.86$), time allocation to teaching and researching ($\bar{X}=3.84$) had the greatest influence on the capacity for scientific research in education of pedagogic lecturers.

Keywords: educational research capacity, role of educational research capacity, pedagogical university lecturers

Cite This Article: Le Thi Xuan Thu, "Cognition of Pedagogic University Lecturers on the Role of Capacity for Scientific Research in Education and Factors Affecting the Capacity for Scientific Research in Education of Pedagogic Lecturers in Vietnam." *American Journal of Educational Research*, vol. 6, no. 5 (2018): 490-498. doi: 10.12691/education-6-5-20.

1. Introduction

The retrospective of the works of some foreign authors shows that there has been a surge of interest in the study of scientific research capacity among pedagogic university lecturers, especially, in the field of educational research when pointing out various facets of the educational research capacity in the development of education, in general. In particular, the authors identified the role of educational research capacity in training activities and professional development of the lecturers [1-8].

In a speech at the Ethiopian Higher Education Conference on December 16, 2007 by the United Nations Economic Commission for Africa (UNECA), an educational expert, Damtew Teferra said that university lecturers must pursue three main tasks including teaching, scientific research and community service. He emphasized that scientific research is powerful home to create a knowledge house, so building research capacity in universities has becomes

more important than ever, contributing to the development of the education system of a nation. In addition to training – the main task, scientific research is considered as the basic activity in the university. It is imperative that the research work be done in parallel with the teaching tasks if a university wants to be comparable to other universities in the region and in the world. Universities in the world and in the region always create scientific research environment, promote talents and have incentives for lecturers so that they can be more devoted to scientific research [9].

According to Lee Sing Kong, researching is as important as teaching. In NIE University, Singapore, there are criteria to evaluate lecturers: Research - Teaching - Other activities. NIE puts main emphasis on investing staff, facilities, especially information technology, libraries, laboratories for teaching and researching. They divide the teaching staff into two groups: Group 1: Research 6 - Teaching 4 (Service 2) / Group 2: Research 3 - Teaching 7 (Service 2). Thanks to the quality of teaching and research, their undergraduate and postgraduate

programs are highly valued internationally. The University of California (USA) assesses teachers basing on two criteria: teaching and research. Many scientific inventions of the school bring out high economic value. Their research results have a good reputation throughout the United States and world –wide [10].

Pedagogic university lecturers are the subjects of pedagogical activities in teacher training; who carry out the function of teaching, educating, researching and disseminating science in general, scientific education, in particular; organizing pedagogical activities, being fostered and self-improved professional qualifications, contributing to improve the quality of teacher training. Differently from the general teacher, in addition to fulfill teaching, educating and organizing pedagogical functions, pedagogic university lecturers must also perform the functions of carrying out scientific research and disseminating science and education (scientific research in education for teaching, transfer of scientific educational research results) [11, 12]. Thus, lecturers must teach intensively, basing on the knowledge system of science education. At university, the main task of lecturers is to guide students to self-study, to self-research, to form knowledge, skills, professional proficiency. Together with teaching activities, such task requires university lecturers must also participate in educational research. Therefore, it is really necessary for pedagogic university lecturers to be aware of the role of educational research in teaching activities and in their careers [13].

2. Content

2.1. Method

The sample of 294 lecturers, aged from 25 to 45 in the pedagogical faculties of Hung Vuong University and Thai Nguyen Pedagogy University was selected. This research was conducted by questionnaire and in - depth interviews to investigate the teacher's attitudes to the role of the scientific research capacity of the pedagogic university lecturers in both training and professional activities and to help them self-assess their research capacity through their indications of capacity for educational scientific research according to 5 scales: very poor, poor, average, fair, good.

2.2. Capacity for Scientific Research in Education of Pedagogic University Lecturers

Capacity for scientific research in education of pedagogic lecturers is the ability to successfully fulfill scientific research activities in accordance with identified problems and objectives [14].

2.2.1. Synthesized Results on the Indications of Lecturer's Capacity for Educational Scientific Research

By synthesizing indications of capacity for educational scientific research through the results of lecturers' self - assessment, the author can be able to have a general overview of the indications of scientific research capacity of pedagogic lecturers. The result is presented in Figure 1.

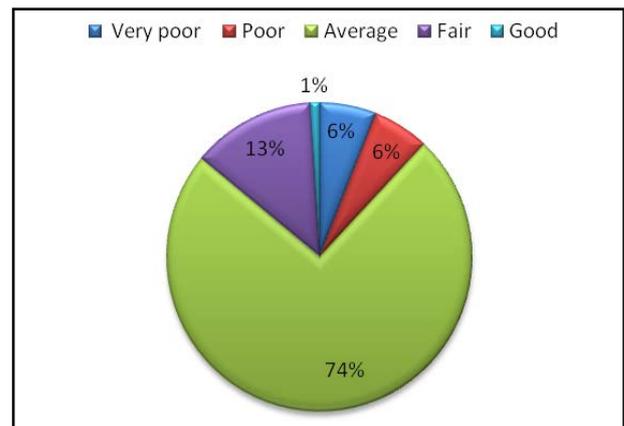


Figure 1. Level of indication of capacity for educational scientific according to the self-evaluation results of lecturers

It can be seen from the results that lecturer capacity for carrying out scientific research in education is demonstrated differently. According to the results of self-assessment, 74% of faculty members have the ability to conduct scientific research in education at the "average" level. Only 1% of them think they have "good" level of scientific research with good knowledge, good performance, prolific and skillful performance; the "fair" level is 13%, about 6% of lecturers evaluate their capacity at "very poor" and "poor" because they do not know about scientific research, in other words, these people think that they don't have ability, or have never conducted any research before. In short, most pedagogic teachers demonstrate their ability to conduct scientific research at average level. This reality is explained as follows:

Over the past few years, the educational research activities of staff in pedagogic universities have made significant contributions to the overall achievement of the education sector. However, the fact shows that in higher education institutions, among lecturers - the main workforce for research – there exists a bias between two activities: research and teaching, and teaching is given priority. This leads to the fact that scientific research works are not as effective as expected, even it is considered as "crammed into file cabinet". In order to overcome the shortcomings, to improve the quality of scientific research and obtain the goal: "each university is a research institution", we need to synchronously implement many solutions (both at macro and micro level) to make the research works really effective [15].

In the context of international integration of our country today, in order to make science and technology meet the development needs of society, researchers, people involving in scientific work, especially lecturers in universities and colleges must be pivotal force in carrying out research and applying the results of scientific research in all aspects of social life. If lecturers are said to be the crucial force, it is because that in higher education environment, the teacher must simultaneously perform two tasks: teaching and doing scientific research. These two tasks are closely interrelated and reciprocal; If only one of these two tasks is implemented, that lecturer is considered not to fulfill his task. Thus, scientific research in education is an indispensable task of every pedagogic lecturer, especially with the goal "each university is a research institution".

However, the reality of higher education training in our country is currently showing the inadequacies between research and teaching among faculty members: in most universities, it seems that lecturers put more emphasis on teaching and disregard research activities. This is one limitation and if there is no right solution, the objectives set previously will be hard to achieve, especially the implementation of Resolution No. 29 of the TW8 Conference (XI tenure) on "fundamental and comprehensive innovation in education, serving industrialization and modernization in a socialist-oriented market economy and international integration" in life.

As a result, 74% of lecturers evaluate themselves as having average academic research capacity. Only 1% of staff assesses themselves as having good research capacity. To find out the answer to the question: "Do the lecturers recognize the importance of educational research capacity?" the author investigates the awareness of the meaning of educational scientific research and the meaning of capacity for carrying out scientific research in education among pedagogic university lecturers. The results are presented in the following parts.

2.2.2. Cognition of Pedagogic University Lecturers on the Role of Scientific Research Capacity in Teaching Activities and Their Own Career Development

* The research results show that most of lecturers are aware of the significance and the role of educational scientific research in teaching activities. Some of the roles are evaluated at "important" and "very important" level,

"Contributing to improving the quality of teacher training" (= 3.87), "Improving effectiveness and quality of teaching" is at the second place with GPA of 3.80. Followed by "Creating an effective learning environment" (= 3.76) and "Improving lecturers' sense of responsibility in their professional activities" (= 3.68)...

Currently, any university must fulfill two main and most important tasks: training and scientific research. These are two activities that have an organic relationship, two fundamental strategic tasks of each university, in which the active participation of faculty members in scientific research activities is one of the most *important - compulsory – indispensable* measures to contribute to improving the quality of training and better meet the increasing demands of society. Pedagogic universities are not an exception; lecturers at these universities also have two important and basic functions: teaching and conducting educational scientific research. Both practice and theory clearly demonstrate that educational scientific research and teaching in pedagogic universities are interconnected, interdependent, and mutually supportive. Scientific research in educational institutions is the basis, conditions and prerequisites to help lecturers implement well their training duties. In contrast, teaching reflects the results of educational scientific research. Thus, it can be said that, together with teaching and educational activities, scientific research is a measure of professional competence of pedagogic lecturers and also an important factor contributing to the improvement of quality of teacher training, confirming the training quality of pedagogical universities [16].

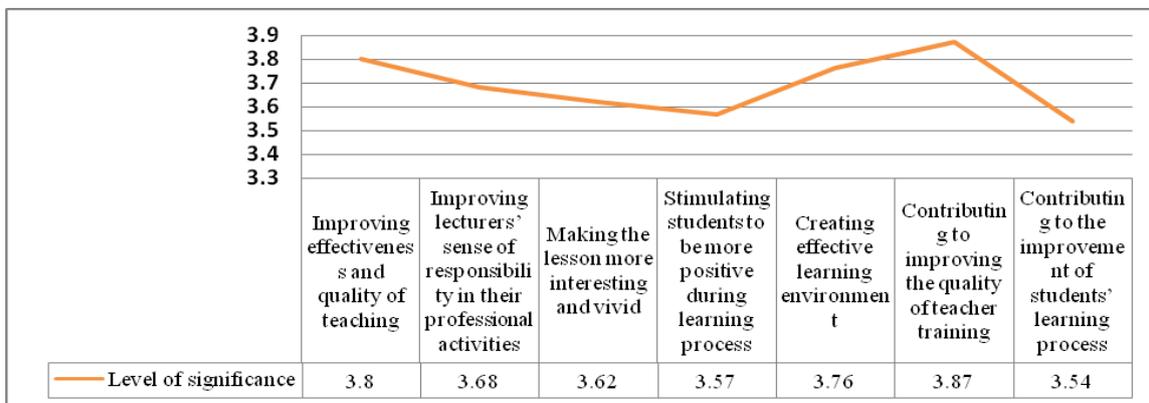


Figure 2. Cognition of lecturers on the significance of scientific research capacity in training activities

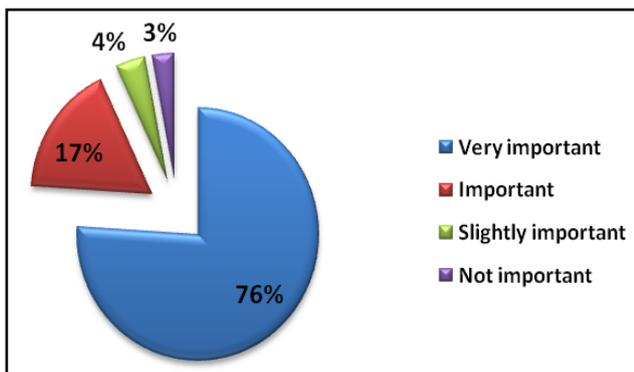


Figure 3. Lecturers perception on the role of educational scientific research in professional activities

The research results show that 76% of faculty members are aware that capacity for educational scientific research plays "very important" role in their teaching and career development. 17% of participants thinks it plays an "important" role in their professional activities, only 4% of faculty (12/294 faculty members) argues that the capacity for scientific research is "slightly important" in their professional activity and 3% of faculty (9/294 faculty members) believes that educational scientific research capacity is "not important" in their professional activities. (Figure 3)

Benefits of participation in the activity of scientific research are very various and are presented as follows:

- Be one of the best ways to improve the teaching and professional development of lecturers;

- Help capture specialized knowledge deeply tied to their directing teaching, so they can make timely adjustment and supplement to inaccurate knowledge or contents in their lectures. Participating in the activity of scientific research, the lecturer, on one hand, strengthens his / her professional knowledge; on the other hand, they can expand and gain more knowledge so they can better understand from other majors;

- Participation in scientific research activities contributes to develop creativity, to enhance independent thinking and working ability; improve knowledge and methods of cognitive science among the lecturers, at the same time, it forms qualities of the researcher. As we all know that while taking part in educational scientific research, lecturers can be either a member or a head of a science research topic at different levels. During the process of conducting the research, the lectures themselves can come up with different solutions. This process will help them to develop independent thinking, "critical thinking", know how to defend their scientific view - points. During the process of implementation, the lecturers will develop and perfect gradually the skills needed for teaching and research;

- Help to identify issues at macro and micro level in the reality of education system in general, their own teaching context, in particular in order to find out suitable measures to improve the practice;

- Increase the understanding of their profession; contribute to form and foster career sentiment for faculty. It is indispensable and important in teaching and in professional activities. This help lecturers better integrate and be more active in their work. It is vital basis to renovate teaching contents and methods. This will contribute to improve the quality of training;

- Update results obtained from their own and their colleague's research feed them into their students which help improve their teaching quality;

- Make their methods of evaluating problems arising in real teaching context more comprehensive;

- Ensure that faculty members are more confident in instructing students to research educational issues;

- Know how to motivate students to explore new things, to stimulate creative potential in students;

- Know how to guide students self - study, apprentice with research work;

- Form and improve students' scientific thinking, make students gradually acquainted with scientific environment, timely keep up date with the advancement of their career;

- Provide lecturers with more promotion opportunities in their career such as leadership positions, or enhance their academic qualifications;

- Contribute to improve the status and reputation of the univeristy, faculty / department;

- Contribute to make suitable recommendation to the Ministry of Education and Training to renovate teaching-related issues in pedagogical universities;

- Contribute to propose to the State appropriate policies for the education of the country.

It can be seen that the perception of the benefits of scientific research capacity is not only good for individual lecturers, but also for the development of the university, educatial sector and the society. This is an indication of quite comprehensive and profound perception, which can be the foundation for fostering the skills of lecturers.

2.2.3. Factors Affecting the Capacity for Scientific Research in Education of Pedagogic Lecturers

Survey results, interviews with lecturers and managers show that there are many factors influencing the lecturers' capacity for educational scientific research. We classified them into groups of factors as in Table 1, Chart 4 and Table 2.

Table 1 shows that: the group of factors related to training and fostering has the greatest influence on the indication of lecturers' capacity for educational scientific research (\bar{X} = 3.90); this is followed by factors related to the lecturers themselves (\bar{X} = 3.86), time allocation to teaching and research (\bar{X} = 3.84), organizational structure, management (\bar{X} = 3.83) and Group of factors in relation to investing and supporting (\bar{X} = 3.78) [17].

Table 1. Group of factors affecting indication of lecturers' capacity for educational scientific research (N=334)

Group of factors	Average points	Standard deviation	Level
Lecturer themselves	3.86	0.481	2
Training and fostering	3.90	0.359	1
Mechanism of encouraging	3.72	0.473	6
Investing and supporting	3.78	0.501	5
Mechanism of Organization and management	3.83	0.607	4
Time allocation to teaching and researching	3.84	0.573	3

(The higher points the factor gets, the more influence it has).

Through the chart below, we can clearly see the influence level of factors on the indicaton of lecturers' capacity for educational scientific research:



Figure 4. Factors affecting the lecturers' capacity for educational scientific research

Table 2. Factors affecting the indication of scientific research capacity of lectures (N=334)

No	Factors	Level of influence			
		Total points	Average points	Standard deviation	Average
1	Awareness of personal obligations	1283	3.85	0.722	3
2	Job passion, enthusiasm for scientific research activities in education and excitement for career	1290	3.87	0.641	2
3	The sense of responsibility of lecturers in scientific research activities	1278	3.83	0.542	4
4	Conscientiousness and professional morality	1273	3.83	0.767	4
5	Psychological atmosphere, traditional working style of the department and the university	1155	3.46	0.969	8
6	The influence from colleagues	1113	3.33	1.049	10
7	Recognition of faculty leader	1127	3.37	1.011	9
8	Training, fostering on scientific researching activities in education	1304	3.90	0.359	1
9	Resources for scientific researching activities in education (budget, facilities ...)	1247	3.73	0.604	6
10	Mechanism of encouraging policy for researcher	1280	3.83	0.566	4
11	Content of training and fostering	1292	3.87	0.466	2
12	Form of training and fostering	1285	3.85	0.512	3
13	Method of training and fostering	1277	3.82	0.581	5
14	Inadequate focusing on the practical meanings of the research	1228	3.68	0.687	7
15	The shortcomings of organization and management mechanisms	1280	3.85	1.041	3
16	The management and operation of scientific research activities in education	1281	3.85	0.568	3
17	Administrative workload	1280	3.85	0.575	3
18	Large amount of teaching time	1281	3.85	0.578	3
19	Materials for scientific research activities in education	1276	3.82	0.533	3
20	Informatics and foreign language skills	1281	3.83	0.675	4
21	Competency and professional skill	1290	3.87	0.478	2
22	Experience and researching skills	1291	3.87	0.467	2
23	Age and job position	1111	3.29	0.654	11

(The higher points the factor gets, the more influence it has).

In the following part, the author will present specific level of influence of each group:

2.2.3.1. In terms of training and fostering

To find out the current training and fostering activities for pedagogic lecturers, the author collected the lecturers' comments through the questionnaire; semi- interviews with managers of the university and deans of faculties, offices and divisions who are related to the training and fostering lecturers.

The investigated contents include:

- Awareness of staffs and lecturers of the role of training and fostering lecturers in teaching quality of the universities;
- Organizing training courses for pedagogic lecturers on professional knowledge, capacity of scientific research in education; training administration;
- Assessing the level of meeting the requirement of the training and fostering toward the need of lecturer's professional development;
- Assessing the advantages and disadvantages training and fostering activities;

The survey results show that despite the fact that the university paid attention to the training and fostering activities for teachers with different contents, these activities have not been effective and infrequent yet. As a result, the number of lecturers who have not been trained

for their scientific research capacity is relatively high (56.1%). Those who attended the training class for once or twice accounted for 20% and those attending these courses for more than 3 times accounted for 23,5%. A number of lecturers in the sample thought that: the content of training and fostering significantly influenced the indication of scientific research capacity ($\bar{X} = 3.87$), form of training ($\bar{X} = 3.85$) and method of training ($\bar{X} = 3.82$). This result shows that training and fostering capacity for scientific research in education has the greatest influence on the indication of lecturers' capacity for scientific research.

There was a positive correlation between the content of training course on national scientific research and the indication of lecturers' capacity for educational scientific research with $r = 0.111$ and $p = 0.043$. This means that if teachers can select content (training, fostering, training as teacher's need, and their weakness, etc.) when participating in training courses, their capacity will be significantly improved. Some lecturers share their aspirations and wishes with us: "We all know that teaching and doing research is an important task of teachers, pedagogic lectures, in other words, scientific research in education is really necessary. We find it very embarrassing to choose the research topic, choose the research methodology, design the research tool, then process the research data, write the research report... if we attend training courses with intensive contents, it will help

us to remove difficulties and do not hesitate to participate in conducting scientific research in education. "(*Nguyen Th H... 35 years old - Hung Vuong University*). *Mr. Nguyen H Th... (28 years old) - Hung Vuong University said: "Once I had the idea to carry out a research with the topic "Methods to enhance students' learning excitement... in... faculty, Hung Vuong University", but when I started to implement, I could not design the research tools. So I could not be able to continue that idea anymore, I would really like to participate in a training course on this topic". Some teachers straightforward said to us that "I had chance to take part in some training courses about scientific research in education, however, the content was quite general, most of us really hope that we were trained the aspect that we were weak at intensively and specifically. It seems to us that most of the training courses we attended were at the aim of formalism and disbursement" (Le Th H... Thai Nguyen University). Some other lecturers said that "form of the training and fostering course is also a very important factor influencing the capacity of carrying out scientific research in education. We hope that the rector of our university will organize many conferences or seminars,... in which professors, leading experts with experience in scientific research in education will be invited to give report so that we have the opportunity to exchange, gain experience ... "* (Mr. Nguyen V M ... University Hung Vuong)...

University is a center for researching and applying science and technology into practice but if a university doesn't focus on training and fostering activities for staff, that university can not maintain and develop the staff quality, can not gain reputation on "education market". This depends largely on the guidance and training of the adjacent staff. There need to have strategies when forming and developing the staff, and these strategies should be specified by plans for each faculty, divisions, professional group, individual lecturer.

For young lecturers, the best place to learn and improve their pedagogical capacity, research capacity is to work with good professors, teachers and scientists. Assigning instructors, trainers to help young lecturers should be a compulsory requirement for professors, associate professors, doctor, chief lecturers and senior lecturers in universities. Young lecturers are oriented toward specialized research, identifying their own strengths, new issues to conduct in-depth study.

Young people are always quick to acquire new things, interested in exploring and love to criticize, so it is necessary for them to receive sympathy, enthusiastic help from senior lecturers. Young lecturers are expected to benefit from a clear mind, intellectual talent, and the good foresight of the instructors in pedagogical activities. Fostering and developing scientific research capacities in education for teachers need a more intrinsic and effective innovation rather than the calling up so there should be a legal regime for the lecturers so that the professional development of the teacher is not a matter of each individual but the overall development strategy of the university. Each university must be responsible, must consider it as a compulsory task, a matter of survival of the university, the value, the reputation of the university as well.

2.2.3.2. In terms of lecturers themselves

The research results show that the group of factors related to the lecturer themselves is the second most influential factor to the indication of lecturers' capacity for educational scientific research. "Job passion, enthusiasm for scientific research activities in education and excitement for career", "Awareness of personal obligations", "The sense of responsibility of lecturers in scientific research activities", "Conscientiousness and professional morality" "Informatics and foreign language skills", "Experience and researching skills", "Competency and professional skill" are considered by teachers to have great influence on their research skills with $\bar{X} = 3.87, 3.85$ and 3.83 ranked at 2,3,4).

"Job passion, enthusiasm for scientific research activities in education and excitement for career", "Awareness of personal obligations", "The sense of responsibility of lecturers in scientific research activities", "Conscientiousness and professional morality" in scientific research activities show the sense of the responsibility of the pedagogic lecturers for their work, in general and the research activities, in particular. These are the personality traits of the teachers, such teachers with sense of responsibility, consciousness, passion and interest are likely to be wholehearted for work and always comply with the requirements, rules and regulations of profession. They will try to complete professional work, constantly innovate and create in work, in general and in research activities, in particular ... and vice versa. The reality shows that besides teachers who are highly responsible for teaching and learning activities, there are still a small number of teachers who are not really enthusiastic in teaching and researching activities. The number of people participating in scientific research (and is participated) are not big. A relatively large proportion of these people are not really enthusiastic and passionate about research. As a result, although many research projects are at high levels such as at the Ministry level ... are still limited in quality and have low academic content. The facts that many researches have been done reluctantly is quite popular. According to the regulations of most universities, lecturers have to complete a certain number of scientific research hours, in other words, they must write a certain number of articles, or research ... a kind of contract. Therefore, many teachers only write research reports just for sufficient working hours only, without paying much attention to the quality of the work that they have announced. Those articles are still published; the research is still accepted but sometimes thank to respect or acquaintance relationship, so that they still "meet the requirement". Many research projects have no value: Due to the thought of "reluctance", as well as economic benefits, the fact of "copy-paste" or "modification" is quite common in research activities. The works that have no plagiarism but no new contributions in scientific aspect are still rated as excellence.

The reason is because the researchers have professional skill and level of "modification". In addition, the study of what is "available" is also a priority to minimize the cost of implementation... This leads to the fact that a lot of work after the inspection with hard covers all end up in the glass cabinet just for the "beauty"... These works certainly can neither improve the level of the researcher,

nor bring efficiency, but waste time and money. In addition, teachers also believe that the weakness and lack of foreign languages, informatics skill and professional knowledge and experience ... also prevents them from getting access to scientific research which also hold back their capacity of scientific research in education.

2.2.3.3. Time allocation between teaching and researching

The results show that there is a correlation between administrative workload (with $r = 0.128$ and $p = 0.019$); large amount of teaching time (with $r = 0.121$ and $p = 0.028$) with the indication of lecturers' capacity for educational scientific research.

Unreasonable time allocation between teaching and researching is one of the reasons that prevent lecturers from participating in the scientific research activities. Time allocation between teaching and research, administrative workload and large amount of teaching time is thought to have greatly influence on the development of lecturers' capacity for educational scientific research ($\bar{X} = 3.85$).

However, our education has and is shifting to the credit system, so suitable time allocation for teaching has become much more difficult. In the past, when the "rolling" program was applied, the lecturers could allocate time for teaching in a fixed amount of time; the remaining time could be used "whole-heartedly" for scientific research. But in the credit system, undergone rapid development, the division of time between science and teaching seems irrelevant, as lectures will have to "breaking" their amount of time in order to keep up with the curriculum of 1-2 sessions per week. This is quite characteristic, especially, in the majors who require lecturers to take part in many outdoor field trips, such teaching time will limit their research activities a lot. Their amount of time can only meet the requirements of either teaching or conducting scientific research.

2.2.3.4. Mechanism of organization and management

Mechanism of organization and management is also a factor affecting the lectures' capacity for scientific research activities. Research data show that "the management and operation of research activities" and "mechanism of encouraging policy for researcher" ($\bar{X} = 3.85$), "Mechanism of encouraging policy" ($\bar{X} = 3.83$). This proves that if the educational institution has a proper mechanism and policy, it will be able to promote the scientific research activities and develop the scientific research capacity for lecturers. In fact, the current way of assessing norm of working outcome - salary for lecturers has not shown that education - training, science - technology is the leading national policy. With the characteristics of intellectual labor, in fact, the lectures' salary frame can not encourage lecturers to actively take part in scientific research activities. Management mechanism of science -technology shows a lot of shortcomings, although the regime of support in the implementation of scientific research, the regime of royalties payment in writing monographs, the compilation of textbooks and reference materials has not been improved, it can not encourage lectures to take part in scientific research activities because it is very low in

comparison to the time, cost, force of the lecturer; In addition, the allocation of the subjects has many disadvantages, the school getting the allocation can not conduct the research, but the schools which are not allocated, have the research, practical ideas for practical application in education. In terms of the managers, they may consider as unimportant, so there are a number of researches that are not really useful in real life. On the other hand, the researches that have been registered, organized, managed must be completed, and inspected.

Therefore, it is necessary to improve the quality of staff that is responsible for managing topics and projects of educational research, especially those who are specialized in educational research activities, must be fully qualified for consulting, verifying initial steps of research topics or projects on educational scientific research. It is necessary that all research topics and projects regardless of their range should be widely criticized by scientists and professional associations... There must be mechanisms to help people who are truly interested in conducting scientific research have chance to complete their wishes [18].

2.2.3.5. Investment and support

The investment and support for the scientific research activities in education is also one of the factors influencing lecturers' capacity for scientific research. This factor is reflected in some issues such as "Materials for scientific research in education" ($\bar{X} = 3.82$), "Resources for scientific research in education (Funds, Facilities ...)" ($\bar{X} = 3.73$). These factors are also considered having a great influence on their research skills. Teacher said that the university paid attention to equipping materials, facilities, investing funds; equipment ... for scientific research activities in education, however, the investment is spread and uneven. Sources of materials for scientific research (books, materials, journals, proceeding of scientific research, etc.) in the library are poor.

Our guidelines and policies on encouraging the development of science and technology, in general and the scientific research in education in particular, in our opinion, are currently sufficient and good. However, in fact, these guidelines and policies have not been effectively implemented due to various reasons. One of the most visible barriers is the "awareness barrier". We are focusing too much on the construction of "super science and technology projects" but not pay adequate attention to the scientific research. In addition, in order to create a more open and favorable environment for development of scientific research, we need to solve a number of issues soon: increase funding for research topics and projects. Bidding registration, approving funding for research (at all levels) should be more publicized and transparent (it should be published on the mass media and on the Internet).

2.2.3.6. Predicting the influence of factors on the indication of scientific research activities in education of pedagogical lectures

In order to better understand the simultaneous or non-simultaneous existence, variability or non-variability of the pairs of variables between the groups of factors and the indication of scientific research activities in education

of pedagogical lectures, we analyzed Pearson correlation between each pair of binary variables. The results show that, in all pairs of variables of indicating capacity for scientific research in education with the groups of factors affecting the indication of capacity for scientific research in education, there is a positive correlation between two groups of factors related to training and fostering

(including content of training, form of training and method of training and fostering) and time allocation for teaching and researching (including: administrative workload and large amount of teaching time) and indication of lecturer's capacity for scientific research in education (with $r = 0.241$ and $p = 0.010$ and $r = 0.137$ and $p = 0.012$ (see Table 3).

Table 3. Correlation between groups of factors and indication of scientific research activities in education of pedagogical lectures

Correlation		Lecturer	Training and fostering	Mechanism of encouraging	Investing and supporting	Mechanism of organization and management	Time allocation for teaching and research	Lecturer's capacity for scientific research in education
Lecturer	Correlation coefficients	1	.007	.131*	.067	.080	-.027	-.010
	Level of significance		.899	.016	.223	.145	.622	.851
	Number of lecturers	334	334	334	334	334	334	334
Training and fostering	Correlation coefficients	.007	1	-.042	.232**	.030	.003	.241**
	Level of significance	.899		.447	.000	.583	.949	.010
	Number of lecturers	334	334	334	334	334	334	334
Mechanism of encouraging	Correlation coefficients	.131*	.042	1	.033	.288**	-.043	.003
	Level of significance	.016	.447		.550	.000	.438	.959
	Number of lecturers	334	334	334	334	334	334	334
Time allocation for teaching and research	Correlation coefficients	.067	.232**	.033	1	.036	.023	.137*
	Level of significance	.223	.000	.550		.515	.677	.012
	Number of lecturers	334	334	334	334	334	334	334
Mechanism of organization and management	Correlation coefficients	.080	.030	.288**	.036	1	-.037	.056
	Level of significance	.145	.583	.000	.515		.500	.308
	Number of lecturers	334	334	334	334	334	334	334
Investing and supporting	Correlation coefficients	-.027	.003	.043	.023	-.037	1	-.002
	Level of significance	.622	.949	.438	.677	.500		.964
	Number of lecturers	334	334	334	334	334	334	334
Lecturer's capacity for scientific research in education	Correlation coefficients	-.010	.141**	.003	.137*	.056	-.002	1
	Level of significance	.851	.010	.959	.012	.308	.964	
	Number of lecturers	334	334	334	334	334	334	334
*. Correlation is significant at the 0.05 level (2-tailed).								
**. Correlation is significant at the 0.01 level (2-tailed).								

A number of factors related to training and fostering; especially, factors of "training content" have the highest possibility of prediction with 31.6% variation of indication of lecturer's capacity for scientific research in education.

The variability of the level of prediction when changing independent variables in this regression allows us to confirm that: Training and fostering plays an important role in developing lecturer's capacity for scientific research in education. Pedagogic lecturers participating in training courses that are suitable for their needs will help develop their own capacity for scientific research in education.

3. Conclusion

Innovating teaching and research towards improving the quality of education is a burning issue in management at universities, institutes and research institutes. According

to a new trend, status and prestige of a university depend on research capacity and ability to participate in international standards research of its teaching staff. A university with a great number of international published research, faculty members participating in international research teams is internationally recognized.

The staff's scientific research capacity is reflected in the number of published scientific works, especially those published in prestigious scientific journals inside and outside the country. International published scientific work is considered as a prerequisite for doctoral training, conditions for participation in international research team, and the criteria for ranking and determining the position and prestige of universities. In addition, the results of educational research must also be applied in the teaching and educating pupils and students, serve the teacher training and high schools...

However, the public as well as the researchers themselves say that the application of results of social science research

including the educational science research into real life is very limited. It is very popular that after being finished, the research is laid aside in cabinets.

In conclusion, enhancing research capacity, in addition to improving personal and organizational prestige, it has a particularly important supportive effect on improving the quality of the lesson and the lecturer's ability to consult. They need to be attended training courses on "enhancing scientific research capacity" to help them: Clearly understand the limitations of current research methods and the need for innovation in the field of science educational research; having a thorough grasp of the differences in the requirements of applied research and academic research in the science of education; mastering and practicing some basic processes and skills in conducting research including identifying research issue and research framework, research design, together with specific methods and skills; practice some common statistical tools on SPSS; share and learn with trainers on the implementation of applied research; sharing and inquiring experience with colleagues on the process of posting and publishing in peer-reviewed international journals (SSCI).

References

- [1] Beillerot J. (1991), La "recherche", essai d'analyse. Recherche et Formation, 9, pp.17-31
- [2] Culaghina I.Iu (Head)(2a008). Pedagogical Psychology. Creative Center Publishing House. Matxcova, (Russian version).
- [3] David P. Baker & Gerald K. Letendre (2010), National Differences, Global Similarities: World Culture and the Future of Schooling, Sai Gon Culture Publishing House (Translated by Pham Tan Hoang Son).
- [4] Kothari C.R (2004), Research Methodology: Methods and Techniques, New Age International (P) Ltd.,Publishers, ISBN (13): 978-81-224-2488-1.
- [5] Šeberová Alena, (2008), La compétence de recherche et son développement auprès des étudiants - futurs enseignants en République tchèque, Recherche & Formation, n°59, pp. 59-74.
- [6] Vokell E. L (2000), Scientific research in education, Translation material of National University, Ha Noi.
- [7] Weiner, F.E. (2001), Comparative performance measurement in schools. Weinheim and Basejl: Beltz Verlag, pp.17-31.
- [8] Xavier Roegiers (1996), "The pedagogy of integration, or how to develop competences at the school", (Translated by Dao Trong Quang and Nguyen Ngoc Nhi), Education Publishing House, Hanoi.
- [9] Teferra, D. (2007). The Knowledge Context in African Universities: The Neglected Link. International Higher Education 25, 23-25.
- [10] Lee Sing Kong, NIE/NTU (1991) Curriculum Planning and Development Division, Ministry of Education, Singapore for "Scientific Inquiry" p.160.
- [11] Le Thi Xuan Thu (2016), Monographs Book, Educational research capacity of pedagogic teachers, Thai Nguyen Press.
- [12] Le Thi Xuan Thu (2017), Methods of the educational science research, Thai Nguyen Press.
- [13] Le Thi Xuan Thu (2015), Elements in the lecturers' educational research capacity framework, Journal of Educational Administration, No. 79/2015.
- [14] Le Thi Xuan Thu (2016), Monographs Book, Educational research capacity of pedagogic teachers, Thai Nguyen Press.
- [15] Le Thi Xuan Thu (2016) Investigation on competency in educational studies of lecturers working at educational universities, Hanoi University of Science. December 2016- English Notebook.
- [16] Le Thi Xuan Thu (2014), Demonstrating the educational science research capacity of pedagogic teachers. Vietnam Journal of Social Psychology, No 9/2014
- [17] Le Thi Xuan Thu (2014), Factors influence the teachers' educational research capacity. Journal of Social Psychology, No. 8/2014.
- [18] Phan Tu Nga (2011), Actual situation and measures for improving research activities of lecturers at Hue University, The Hue University Journal of Science, No 68, pp 67-78.