

Some Solutions for Developing Scientific Research Capacity Forlecturers at University of Education - Thai Nguyen University



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ABSTRACT: With the responsibility of training high school teachers to meet the current requirements of curriculum and textbook renewal, lecturers at the pedagogical university not only plays the role of knowledge creation but also develops students' capacity and quality. In order to fulfill that role, along with teaching, scientific research is an important task of university lecturers. Scientific research results are considered as a measure of the professional competence of lecturers. In the current context of educational innovation, the development of scientific research capacity for lecturers is an important method to improve the quality of training and meet the increasing requirements of the society. Based on working reality, in the article we propose some solutions to develop scientific research capacity for lecturers at the University of Education - Thai Nguyen University today.

KEYWORDS: scientific research, capacity development, university lecturer, University of Education, Thai Nguyen University

1. INTRODUCTION

Resolution No. 29-NQ/TW on fundamental and comprehensive innovation of Vietnam's higher education in the 2010-2020 period affirmed: "Building a contingent of lecturers being *sufficient in quantity and having ethical quality and professional conscience, highly professional qualification, advanced teaching and management style* " [1]. Accordingly, the building and development of the teaching staff is a key task of universities.

Besides teaching, scientific research is the basic task and function of university lecturers. The results of the lecturers' scientific research are both a measure of professional qualifications and a criterion for creating the university's brand and meeting the increasing requirements of the education industry [2]. Lecturers with scientific research capacity are those who have the ability to explore and discover the rules and nature of natural and social phenomena, thereby discovering and creating new scientific knowledge [3]. In the context of many fluctuations in higher education in terms of the increasing number of universities, the sharp declining number of students... the lecturers in many universities, despite always being developed, still reveals certain limitations, which is an undeniable fact [4]. This is the reason why the development of scientific research capacity for lecturers is always focused and promoted by universities [5], [6]. In fact, this policy has become "the key to solving the challenge of the industrial revolution 4.0" [7] in developing high-quality human resources in the field of education and training.

Over 57 years of development and growth, University of Education - Thai Nguyen University has made many achievements in scientific research activities. However, with the goal of becoming a regional and international university in the future, developing scientific research capacity for the lecturers is a big challenge. Within the framework of this article, on the basis of analyzing the shortcomings, we would like to propose some solutions to develop scientific research capacity for the teaching staff of the University of Education - Thai Nguyen University.

2. RESEARCH RESULTS

2.1. General overview of scientific research activities of lecturers at University of Education - Thai Nguyen University

2.1.1. Achievements

2.1.1.1. The situation of implementing policies and laws on science, technology and innovation in the period of 2018 - 2023

In the period of 2018 - 2023, University of Education - Thai Nguyen University has developed and issued management documents on: (1) Regulations on management of specialized research groups, which are the basis for the establishment and management of the activities of specialized research groups and improving the quality and quantity of international publications; (2) Regulations on the use of revenues from international cooperation activities to develop international publications; (3) Operational regulations of the councils on basic initiatives; (4) Regulations on intellectual property activities in the University; (5) Regulations on

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awarding points to students who win prizes in scientific research and Olympic competitions; (6) Regulations on expenses for working trips, organization of national and international scientific conferences and seminars; (7) Regulations on management of science and technology activities of the University. The promulgated mechanisms and policies create an environment to encourage scientific research activities of staff, lecturers and learners, gradually improve the scientific research capacity of lecturers, and increase publication in reputable international journals.

For the implementation of the policy to encourage the development of science and technology under Decree 99/2014/ND-CP: The University annually spends at least 3% of its funding from pedagogical tuition fees and at least 5% from legal revenue to develop the University's science and technology resources.

2.1.1.2. Regarding the implementation of science and technology tasks at all levels

In the period of 2018 - 2023, the University's lecturers and staff have presided over the implementation of 06 State-level science and technology projects; The 10 topics of the Nafosted Foundation focus on the fields of: *humanities and social sciences*, *materials science*, and *biotechnology*. National-level science and technology researches have products that are international scientific articles on the ISI list, intellectual property and graduate training. Some research groups have had international cooperation and joint publication with prestigious scientists in the world. The university has organized the implementation of 39 science and technology projects at ministerial level. The scientific tasks have been completed and the acceptance is organized according to the plan. Ministry-level science and technology projects have products that are international scientific articles on the list of ISI or Scopus, products transferred to localities and training graduate students. The university has presided over the implementation of 21 university-level science and technology projects, 155 grassroots-level science and technology projects of lecturers. The grassroots science and technology projects are all researched to solve the university's order orientations on innovation of training programs, fostering programs, innovation of teaching methods and innovation of university administration. The scientific research results of grassroots-level projects have products that are published in prestigious international and national journals, directly serving the requirements of fundamental innovation, comprehensive higher education, meeting the requirements of reforming the general education program and the demand for educational services in the northern midland and mountainous provinces.

2.1.1.3. About the results of scientific publication

There have been a total of more than 2000 scientific articles published in international journals and prestigious scientific journals in the country. In which, there are 282 articles published in prestigious international journals on the list of ISI/SCOPUS. Through policies to encourage and support lecturers to publish internationally, in this period, the number of lecturers' international publications has doubled compared to the previous period, in which the number of articles in prestigious international journals has increased markedly. In addition, the lecturers of the University organized the compilation and publication of 91 textbooks, compiled and participated in the compilation of 81 monographs and reference books. These books directly serve training activities of the University and research materials for lecturers and students of the University.

2.1.2. Existences and limitations

In addition to the achievements, the scientific research activities of the lecturers of the University of Education still have some limitations such as: No products have been registered for intellectual property rights or commercialized. ; There are no strong research groups and cooperation with international scientists (joint publication...); No key investment has been made for laboratories serving strong research groups; Domestic and international scientific publications have increased sharply in recent years, but, if we calculate the number of prestigious international publications (in the ISI/Scopus list) per the number of lecturers, this number is still low, averaging only 0.57 article/lecturer for the whole period 5; Research cooperation and transfer with localities is still limited.

2.1.3. Reason

Lecturers participate in teaching activities too much and spend little time on scientific research; In-depth research groups are still limited, not pioneering, and not many scientific products have been transferred; International cooperation in scientific research is still limited because the foreign language ability of researchers has not met the requirements for cooperation; Scientific research capacity, lecturers' ability to write and publish international articles is still limited; Funding for investment in science and technology is not adequate from all sources including investment from the central government, investment from the Ministry and from the University; The ability to commercialize scientific and technological products is still difficult. Consultancy and support for patent registration and intellectual property registration have not been given adequate attention.

2.2. Factors affecting the results of lecturers' scientific research

2.2.1. To the lecturers

Firstly, they have not been fully aware of the importance of scientific research, therefore, most have not really actively proposed research topics. Many topics are studied based on models that have been studied before or have not come from the actual needs of the lecturers themselves, or the needs of the subject or major.

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Secondly, they have not grasped the scientific research method, how to find references, how to build an outline and how to present a scientific research work yet. This will lead to some errors that are often made in scientific research by lecturers such as: wide research scope, mainly theory, unclear research object and inaccurate use of technical terms...

Thirdly, the topics selected by the lecturers are still general and not in-depth. They have not selected specific issues and ignored many practical issues. Most of the lecturers have selected the projects whose documents for reference are abundant and they are still hesitant to choose projects that need to collect a lot of documents, statistics and run models.

2.2.2. Group of subjective factors

Fourthly, it can be affirmed that the main source of income for lecturers today comes from teaching. Scientific research takes a lot of time and effort while the lecturers' income is low. Moreover, regulations for registration and payment of scientific research costs are tightened, which causes many difficulties for lecturers to be determined with scientific research. The policy to encourage scientific research is still insufficient in synchronization and has not created motivation for scientific research among the lecturers and staff.

Fifthly, lecturers' limited foreign language proficiency causes difficulties in the process of referencing documents to do the topic. Documents using Vietnamese translated by researchers are often not topical, have low practicality, and are not rich in content.

Sixthly, the funding for scientific research topics of lecturers is still limited. This is also an inadequacy, causing difficulties for the development of scientific research among lecturers. In addition, there is a lack of leading experts in many fields, not being able to undertake research tasks of regional and international stature.

2.3. Some solutions

2.3.1 For management work

Firstly, the University needs to support and create more favorable conditions for the lecturers' scientific research activities and consider this an important solution to improve the University's training quality. Faculty and University leaders need to help lecturers become more aware of the position and importance of scientific research.

Secondly, the University needs to aim to establish a scientific research group in the faculty so that the lecturers who have experience in scientific research can help young lecturers participate in working on topics and projects. Lecturers in different subjects and different faculties, according to us, can also study together interdisciplinary and interfaculty projects and issues and the University also need to pay more attention to lecturers with excellent achievements in scientific research.

Thirdly, it is required that the lecturers' scientific research topics must ensure the correct identification of the research objectives and subjects in accordance with the content of the training program. Lecturers need to closely combine theory and practice so that they can consolidate the knowledge learned at the University and go into each specific field; The scope of the study area is not too wide. Besides, funding for lecturers' scientific research projects needs to be implemented. In addition to funding sources for science and technology careers, the University should actively cooperate with businesses, production and business units, international organizations and attract funding sources for lecturers' scientific research activities while helping topics with higher applicability.

Fourthly, in order to facilitate the lecturers' scientific research, the University should spend more money to invest in building and developing digital library information (currently only accessed in the form of scanning the contents of the first few pages, table of contents) and support links or packages to access some paid scientific data sites.

Fifthly, for some subjects with few lecture hours due to a small number of students or due to changes in the content of the training program leading to the lecturers not having enough teaching hours, the University should allow the conversion of the number of scientific research into standard teaching hours. This conversion creates conditions for lecturers to be considered to have completed the academic year's teaching norm when evaluating and ranking lecturers annually. Doing this will be an important and necessary "push" for lecturers to focus on scientific research activities.

Sixthly, make use of qualified human resources and seniority in scientific research work in the University to organize specialized training courses for young, inexperienced lecturers in scientific research in order to improve synchronization for all lecturers. At the same time, it is also necessary to focus on proposing timely reward regimes for lecturers participating in scientific research, especially lecturers with high achievements, specifically: awarding certificates of merit, bonuses, and standards for emulation review.

2.3.2. For teachers

It is necessary to raise awareness about the role of scientific research for university lecturers and spend more time on this activity; Improve foreign language skills and writing skills for international publications, especially those published in reputable journals or publishers; Special attention should be paid to staff development, planning and roadmap to train young lecturers to meet the needs of the regional and international education market; It is necessary to have an orientation to research strengths and promote their own active role, actively participate in intensive research groups of the university to have better opportunities for cooperation and development.

3. CONCLUSION

In the context of current globalization, with the important role of scientific knowledge, the promotion of scientific research among lecturers is more and more practical. Scientific research activities of lecturers are a very important activity in turning the training process into a self-training process. This is also a necessary basis for innovating teaching contents and methods, contributing to improving the quality of training, meeting the increasing demands of the society, in order to train, foster and develop lecturer's quality.

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