

FACULTIES ON ACTIVITIES OF TRAINING HIGHLY QUALIFIED HUMAN RESOURCES: RESEARCH IN THE MEKONG DELTA

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Abtrachts

The Mekong Delta region currently lacks a high-quality labor force. Many universities have opened postgraduate training programs to provide high-quality labor for this region. On the systematic approach to development and practical activities, this study on the teaching staff with high-quality human resource training activities is to answer two research questions: (1) What are the researches on the teaching staff role in human resource training at the higher education focusing on? and (2) What are the gaps in this line of research on training highly qualified human resources? From there, this study assesses the current strengths and weaknesses of the teaching staff of universities in the Mekong Delta, identifies opportunities and challenges in human resource training in the new context; at the same time, it orients the activities of linking the teaching staff universities open approach, increased autonomy, self-responsibility in the field of training high-quality human resources to meet the requirements of fundamental and comprehensive educational innovation.

Keywords: *Highly qualified human resources, Mekong Delta region, teaching staff, training activities.*

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ĐỘI NGŨ GIẢNG VIÊN VỚI HOẠT ĐỘNG ĐÀO TẠO NGUỒN NHÂN LỰC TRÌNH ĐỘ CAO: NGHIÊN CỨU Ở VÙNG ĐỒNG BẰNG SÔNG CỬU LONG

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Tóm tắt

Trong những năm gần đây, khu vực Đồng bằng sông Cửu Long đang thiếu lực lượng lao động chất lượng cao. Nhiều trường đại học đã mở các chương trình đào tạo sau đại học nhằm cung cấp lao động có trình độ cao cho khu vực này. Từ quan điểm, phương pháp tiếp cận nghiên cứu hệ thống, phát triển và hoạt động thực tiễn; nghiên cứu về đội ngũ giảng viên với hoạt động đào tạo nguồn nhân lực trình độ cao nhằm trả lời 2 câu hỏi nghiên cứu: (1) Các nghiên cứu về vai trò của đội ngũ giảng viên với hoạt động đào tạo nguồn nhân lực của giáo dục đại học đang tập trung vào những nội dung nào?; và (2) Các khoảng trống trong nghiên cứu về đội ngũ giảng viên với hoạt động đào tạo nguồn nhân lực trình độ cao là gì? Từ đó, nghiên cứu này đánh giá thực trạng mặt mạnh, mặt hạn chế của đội ngũ giảng viên các trường đại học ở vùng Đồng bằng sông Cửu Long, xác định cơ hội và thách thức về hoạt động đào tạo nguồn nhân lực trong bối cảnh mới; đồng thời, định hướng hoạt động liên kết đội ngũ giảng viên các trường đại học tiếp cận theo cơ chế mở, tăng quyền tự chủ, tự chịu trách nhiệm trong lĩnh vực đào tạo nguồn nhân lực trình độ cao nhằm đáp ứng yêu cầu đổi mới căn bản và toàn diện giáo dục.

Từ khóa: Đội ngũ giảng viên, hoạt động đào tạo, khu vực Đồng bằng sông Cửu Long, nguồn nhân lực trình độ cao.

1. Introduction

The requirement in human resource training activities is to meet the practical socio-economic development and to be associated with the labor market. Training institutions must create people with the ability to integrate, the ability to work in a synchronous team, the ability to regularly update knowledge, to acquire and master new expertise; in particular, trainees need to optimally develop intellectual capacity, know how to pose and solve problems of a technical officer, a manager, a dynamic business administrator. Improving the quality of human resource training is always a strategic goal of higher education institutions. Therefore, the task for these institutions in the current context is to maximize available resources, effectively exploit opportunities and reasonably resolve challenges to continuously develop the school. (National Institute for Educational Strategy and Curriculum, 2007).

Reality is posing a challenge for higher education institutions to quickly shift from narrow-scale training to the broad-scale to serve socio-economic development; adapt and meet the requirements of a market economy with state management in a socialist orientation. At the same time, universities need to closely follow the reality, social needs and specific characteristics of localities to implement training activities, applied scientific research to meet the diverse needs of the country and localities. On the other hand, through the path of integration and innovation, the opportunity to access the world's advanced and modern education has been opened up, international cooperation has been enhanced and expanded to accelerate the integration process. With the motto of integration for development and development for integration, on the basis of selectively absorbing advanced knowledge and experience from the world, Vietnamese education must inevitably choose appropriate "models" to move from an insufficient education system to perfecting a sustainable national education system, gradually building an advanced, modern Vietnamese education system that has regional and international influence, on the basis of a sustainable, humane educational philosophy imbued with national identity. (Ministry of Education and Training, 1997). Therefore, in the new context of scientific and technological

transformation, international economic integration and knowledge economy, higher education will impact everyone, all ages and all areas of social life; has the role of guiding the formation of true values in society, in ethnic communities, and is the foundation for carrying out the mission of training high-quality human resources.

However, a current reality is that human resource training activities of the whole country in general have not been linked to the needs of the labor market, which has caused the situation of both surplus and shortage of technical labor to become increasingly serious. The quantity, quality and structure of human resources in each region have had positive changes, but still do not meet the requirements of labor transition and the demands of the market economy. At the same time, the requirement is that human resources trained in the integration period, meeting the requirements of the labor market need innovation, agility in solving the needs of practical activities, so that training activities in universities and colleges must create a team of people with professionalism and professional expertise. (Loc, 2004). The Mekong Delta region has 13 provinces/cities with a population of 21 million people; the whole region has only 16 universities (of which 9 were upgraded from colleges to universities from 1999 to 2014). In recent years, universities in the Mekong Delta are facing a shortage of highly qualified lecturers; the training of highly qualified human resources is having an adverse effect between actual needs and conditions for ensuring training quality; accordingly, the requirements for expanding scale, improving training quality with lecturers, equipment, information, financial resources, etc. are interrelated and affecting each other by an unbalanced equation (De et al., 2019).

This study will focus on analyzing the strengths and limitations of university faculties in the Mekong Delta region; at the same time, evaluate the opportunities and challenges that are posed in terms of human resource training activities in the new context. From there, it helps orient the activities of linking the faculties. Universities approach the open mechanism, increase autonomy and self-responsibility in the field of training high-quality human resources to meet the requirements of fundamental and comprehensive educational innovation.

2. Overview of research on the role of lecturers in human resource training

A lecturer must first of all be a model citizen, with the personality of a creative, dynamic, skilled worker, with a noble soul. The personality of a lecturer must be qualified enough to master the educational process in order to create the foundation of knowledge, human resources, and talent. From a psychological and sociological perspective, research by De and Hang (2019) assume that, The required qualities of a lecturer include the following attributes: (1) Passionate, attached to ideals, ambitious and passionate about teaching and research; (2) Possessing revolutionary ethics, teacher ethics, worthy of being a shining example for learners to follow; (3) Possessing industrial style, sense of discipline, fighting spirit and enthusiasm; (4) Knowing how to preserve and promote national cultural identity; (5) Conscious of absorbing the quintessence of human culture, promoting the potential of the Vietnamese nation and people; and (6) Have a sense of service, harmony and sharing with the community.

Thomas's (2011) research shows that the main competency standards of a lecturer are expressed through 4 elements: (1) Professional knowledge; (2) Organizational and management capacity; (3) Ability to diagnose needs; and (4) Ability to cooperate and integrate equally. Accordingly, the ability of a lecturer must meet the following tasks: (1) **As a professional referee:** Lecturers must regularly self-study, update knowledge, and improve their expertise to provide students with accurate, complete, and scientific knowledge and act as referees in activities related to the field of knowledge in teaching hours (presentations, discussions, practice, seminars, etc.); suggest, guide, and organize students' research and debate activities, guide and help students access scientific knowledge in the best and shortest way, and on that way, there is always innovation in the lecturer's methods; (2) **As a learning advisor:** As an advisor, each lecturer must always closely follow students' cognitive activities, reflect on their own best teaching methods, and thoroughly understand why those methods are effective or only effective for this student but not for that student, so that when students encounter difficulties, they can promptly support and help them with appropriate directions and specific suggestions; must make efforts to define the "vision" and must try to create a team spirit for the

group of learners; find ways to encourage learners, give timely and constructive advice so that learners can act towards that vision; give meaningful feedback to improve students' academic performance; (3) **Be a coach:** The lecturer must know how to "stimulate" learners' understanding, open up learners' thinking and guide learners to understand so that they can overcome difficulties and challenges in learning; create opportunities for learners to have enough conditions to think, learn and be able to make their own decisions in arising problems. Many concepts, formulas, etc. learned may be forgotten and not used, but the way of thinking, learning methods, behavioral skills, and work implementation strategies will be consolidated and developed in the later life of the learner; (4) **Be a manager of the learning process, educational assessment:** Lecturers must coordinate work, connect people, learning materials, teaching aids and learners systematically and effectively; must design tests that are appropriate to the requirements, purposes and learning outcomes of learners, in addition to the requirement to assess learners fairly and accurately; plan and apply effective testing methods including: formal or informal assessment and assessment throughout the learning process with final assessment; and (5) **Be a scientist:** Lecturers must have personal and professional intelligence to have sufficient knowledge of scientific research activities; must have qualities with scientific research skills; and must have the right qualities and attitudes in scientific research activities.

At the same time, much Research has paid attention to the quality of lecturers in the training of human resources of higher education institutions; in particular, promoting sustainable development and rapid adaptation of each lecturer and the whole team. In particular, the emergence of new teaching technologies has led to the need to change the role and methods of teachers becoming more urgent; forms of lecturer training have also become more diverse and rich; attention has been paid to the method of training according to modules; accompanied by a policy of reducing teaching hours of lecturers in class and attaching importance to the relationship structure of the title between the ratio of professors to teaching assistants and assistants. (Hien, 2006). Beerens (2003) advocates creating a "culture" of promotion and learning in the team, considering it a new value of teachers. At the same time, Beerens,

identifies: (1) Dynamic growth and always being new are the central criteria of today's teaching team, and (2) The principled requirements for orienting the teaching profession for the 21st century, with 5 core issues being blended: knowledge, skills, qualities, attitudes and beliefs (Beerens, 2003).

To do so, universities need to open up, welcome knowledge cooperation and need to have profound structural changes in training activities; Vest said: (1) With open access, we are seeing the emergence of a comprehensive university - a super university, accessible, empowering, dynamic, built on a common open materials framework and platform on which much of the world's higher education can be built or enhanced; (2) the Internet and the Web will provide the open access and communications infrastructure, its derivatives will provide much of the knowledge and information infrastructure; and (3) the Super University will accelerate the spread of high-quality education and scholarship; The emerging mega-university, built on the power and ubiquity of the Web and fueled by the open educational materials movement, will give teachers and learners everywhere the ability to access and share teaching materials, scholarly publications, remote scientific work in progress, experiments, and collaborations worldwide, thereby achieving economic efficiency and improving the quality of education through a noble and global effort. (Vest, 2016).

Research by Pucciarelli and Kaplan has shown that The quality of teachers includes 5 aspects: (1) Rich knowledge of the scope of the program and the content of the subject they teach; (2) Pedagogical skills, including having a "knowledge base" of teaching methods and the ability to use those methods; (3) Having reflective thinking before each problem and having the ability to self-criticize, a very typical feature of the teaching profession; (4) Knowing how to sympathize and commit to respecting the dignity of others; and (5) Having management capacity, including management responsibility inside and outside the classroom (Pucciarelli & Kaplan, 2016). In higher education, a similar approach: University lecturer = Teacher + Scientist + Manager + Social supplier, has been proposed regarding the concept and requirements for developing lecturers in the context of integration; At the same time, future lecturers need to have the following 8 elements: (1) Academic freedom; (2) Equal benefits; (3) Participation in

school governance; (4) Being provided with the necessary resources to perform tasks; (5) Being given opportunities for advancement; (6) Having specific expectations and clear evaluation standards; (7) Clear contract procedures and feedback mechanisms; and (8) Being provided with regular professional development" (Kezar et al., 2016).

Batal in the book series "Human resource management in the public sector" exploited the direction of human resource management of Leonard Nadle, and he gave an overall content on human resource development. Batal used the research results of other sciences (education, forecasting, demography, mathematics...) to give a complete picture of the content of human resource development, including from the stages: training, recruitment, management, labor organization, internal communication, building job and capacity lists; and finally, inventory, evaluation to improve the capacity and effectiveness of human resources (Christian, 2002).

Bui Van Quan and Nguyen Ngoc Cau in the study "Some approaches in research and development of teaching staff", mentioned 3 approaches in research and development of teaching staff today: (1) Approaching human resource management and development according to Christian Batal's diagram; (2) Approaching according to management methods, including: education, mobilization, propaganda methods; administrative methods; economic methods; and (3) Approaching the content of developing the teaching staff. From there, the authors affirm: the choice of which approach is determined by the theoretical awareness and the results of analyzing educational practices of the researcher or manager (Quan & Cau, 2006).

Le Duc Ngoc in the book "University Education - Viewpoints and Solutions", when referring to the issue of innovation in teaching staff to improve the quality of training in universities and colleges, stated that there are two main reasons why the issue of teaching staff becomes the top concern of universities: (1) First, the level of the staff determines the quality and ability of a school in teaching, research and serving society in a commodity economy; (2) Second, the cost of salary and allowances for this staff is the largest expense of each university, it is closely linked to the issue of quality, efficiency and training performance.

From there, the author suggests: (1) There needs to be an organization to carry out professional training for lecturers. It could be a university education research center or a legal entity of the Association of Vietnamese Universities, which will take on the role of focal point for activities to improve the quality of lecturers; and (2) Funding is needed for professional training of lecturers. This funding comes from the annual training of administrative staff, from the basic science program, from funding sources and contributions from members participating in the activities (Ngoc, 2004).

When referring to “Developing human resources for higher education in Vietnam”, Do Minh Cuong and Nguyen Thi Doan discussed 5 main contents: (1) Researching the theoretical basis and practical experience in developing human resources for higher education in countries around the world; (2) Overview of the practice of developing Vietnamese higher education in the historical process of the nation to identify its traditional elements; (3) Analyzing and evaluating the current status of human resources for higher education in our country to find out the causes leading to weaknesses; (4) Assessing the opportunities and challenges for higher education in our country in the first few decades of the 21st century and determining the goals, principles, and strategic tasks for the development of human resources for higher education in our country; and (5) Propose key solutions to achieve the above goals and tasks (Cuong & Doan, 2001).

Research by Nguyen Phu Binh in “Arousing the intellectual resources of the Vietnamese community abroad”, affirmed: “With a large number of overseas Vietnamese residing in almost all countries with scientific, technological and economic qualifications, trained in a developing, competitive and updated environment, overseas intellectuals are the potential and valuable assets of the country. If mobilized well, this resource can help the country take shortcuts, get ahead, and contribute to promoting the cause of industrialization and modernization of the country” (Binh, 2005). In the monograph “Handbook for improving the capacity and quality of the teaching staff”, Dang Quoc Bao, Do Quoc Anh, Dinh Thi Kim Thoa after mentioning the general issues of the quality - capacity of teachers, the teaching profession in the new

development context; the research proposed ways for teachers to learn and improve their own quality and capacity, meeting the requirements of teachers in the conditions of the country implementing integration and industrialization, bringing education into standardization and modernization (Bao et al., 2007).

In order to implement Directive 40/CT-TW of the Secretariat on “Building and improving the quality of teachers and educational managers in the period 2005 - 2010”, the Institute of Strategy and Educational Programs has conducted research to assess the current situation of teachers in Vietnam, as a basis for decisions related to teachers. When referring to the issue of lecturers in higher education, the report recommends aspects that need special attention to improve the professional capacity of the entire teaching staff: (1) Ability to use foreign languages to support professional activities; (2) Ability to link teaching, scientific research with practical production; (3) Ability to know and apply information technology in teaching; and (4) Understanding of cultural and social issues (National Institute for Educational Strategy and Curriculum, 2007).

Nguyen Van De and Phan Trong Nam with the study “Developing scientific research capacity for teachers - Theoretical and practical issues” pointed out the content, approach process and influencing factors as well as international experience in developing scientific research capacity for teaching staff (De & Nam, 2017). In particular, Ho Van Thong and Tran Quang Thai with the study “Current situation and solutions for coordination between Dong Thap University and localities in training and fostering human resources to meet the requirements of socio-economic development”, mentioned the responsibility of universities in the Mekong Delta region to create breakthroughs in fundamental and comprehensive innovation in education and training, develop high-quality human resources, attract and employ talents; at the same time, promote research, transfer, and strongly apply achievements of the fourth industrial revolution in all areas of social life, focusing on a number of key industries and fields with potential and advantages to act as a driving force for growth in the spirit of catching up, progressing together and surpassing in some areas compared to the region and the world. (Thong & Thai, 2022).

In summary, from the content presented above,

it can be seen that, each work deals with different aspects, but the common points that can be drawn are: (1) Affirming the role of human resources in socio-economic development, outlining the basic issues of human resources development in the early years of the 21st century; (2) Affirming the role of the teaching staff in training high-quality human resources in higher education is an urgent issue, which has attracted the research of many organizations and scientists at home and abroad; and (3) Proposing a process for implementing the transition to a high-quality system, first of all the quality standards of the teaching staff; at the same time, putting forward viewpoints, goals, and innovative solutions for planning, training, fostering, and using lecturers. Therefore, inheriting existing research results, aiming at an open approach, increasing autonomy and self-responsibility for universities in the field of training high-quality human resources, needs to be further improved by universities in our country.

3. Research approach and methodology

3.1. Research approach

- *Approaching the development perspective:*

The objectivity of human resource training activities is determined by every lecturer's awareness development; the qualities and capacities of lecturers become the driving force for the development of the training process. At the same time, the training process is always moving and developing, requiring inheritance and forecasting the future of the context of educational innovation and international integration. Therefore, developing the qualities and capacities of lecturers to meet the requirements of human resource training is indispensable. Consider succession and forecasting for sustainable development.

- *Operational perspective approach:* The qualities and capacities of lecturers are expressed through activities; the manifestations of the process and products of activities are considered the bases for evaluating the qualities and capacities of lecturers. Therefore, developing the qualities and capacities of lecturers is a necessary condition for effectively implementing human resource training activities.

- *Approach practical perspective:* The teaching staff of universities in the Mekong Delta region is a part of the teaching staff in Vietnam; besides the common characteristics, the teaching staff in this region has its own characteristics. Therefore, when

implementing training activities in the Mekong Delta region, it is necessary to take into account the specific factors of the region (Thong & De, 2022).

3.2. Research method

The research process is illustrated in Figure 1; includes 7 steps: (1) Review documents on solutions to improve the quality of training high-quality human resources; (2) Design questionnaire; (3) Edit questionnaire; (4) Collect data; (5) Analyze the data; (6) Propose solutions and discuss the proposed solutions; and (7) Draw conclusions.

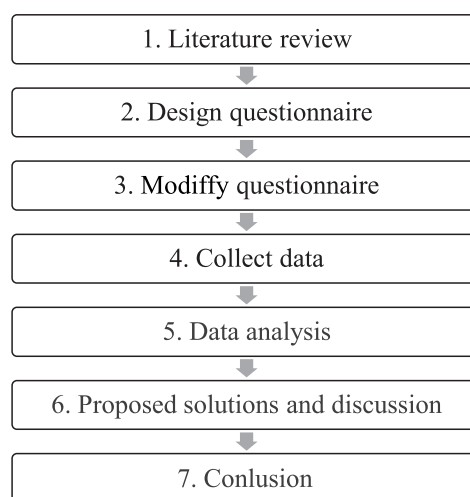


Figure 1. Research process

This research sample, including 20 experts in the fields of science, technology, mathematics and engineering who have worked at universities and higher education institutions in Vietnam for at least 25 years. Data were collected through a questionnaire sent directly to experts through 3 national scientific conferences: (1) Conference on “Improving the quality of training activities for master’s degree in Educational Management” hosted by Dong Thap University in 2018; (2) Conference on “Research and development of educational science for research and teaching” organized by the Ministry of Education and Training in Vietnam in 2022; and (3) Workshop “Teacher training in the context of curriculum and textbook innovation: Policy and practice” chaired by Dong Thap University and Vietnam Education Journal in 2022. At the same time, this study uses results from the studies: (1) “Developing scientific research capacity for teachers in the Mekong Delta region”, Nafosted Technology Research topic; Code: VI 2.3-2013.15; and (2) “Management of work-study training activities at universities in the Mekong Delta region according

to a quality assurance approach”, PhD thesis according to Decision No. 2472/QĐ-DHDT dated December 29, 2021 of Dong Thap University.

4. Results and discussion

4.1. Current status of training high-quality human resources in the Mekong Delta region

Over the years, universities in the Mekong Delta have continuously improved and promoted resources to enhance the quality of postgraduate training activities, meeting the demand for high-quality human resources. Consulting, supporting and serving students in postgraduate training activities have received special attention from schools; students after graduation basically meet the professional and technical requirements of their units and agencies, as well as have the foundation and conditions to continue to develop.

However, the level of meeting the needs of learners for postgraduate training activities in the Mekong Delta region has not reached the desired level; in which, the biggest limitation is the number of majors of schools in the region participating in postgraduate training is too small (details in Table 1). With 16 universities in the Mekong Delta region, but currently there are only 7 schools training doctoral level with 50 majors and 10 schools training master’s level with 139 majors. In particular, in the field of educational science, there are only 4 universities (Can Tho, Dong Thap, An Giang, Tra Vinh) training postgraduate, and there are also only 4 doctoral majors, 15 master ‘s majors; thus, to meet the postgraduate training needs for 30% of the general education teaching staff in the region in the coming years is almost impossible.

Table 1. Statistics on teaching staff and postgraduate training in the Mekong Delta region

Numerical order	University name	Number of majors currently training at postgraduate level		Number of teams		
				Academic title	Degree	
		Master	Dr.	Professor	Associate Professor	Dr.
1	An Giang University	7	1		7	105
2	Bac Lieu University	0	0		1	18
3	Can Tho University	50	21	15	158	596
4	Cuu Long University	8	4	5	39	194
5	Dong Thap University	14	1		18	108
6	Kien Giang University	0	0		1	27
7	Long An University of Industry and Economics	3	0	2	2	37
8	Can Tho University of Technology	1	0		4	54
9	Can Tho University	4	0		8	74
10	Vinh Long University of Technical Education	7	2		16	113
11	Tay Do University	6	1	3	9	37
12	Tien Giang University	0	0		1	32
13	Tra Vinh University	26	14	4	32	285
14	Vo Truong Toan University	0	0		9	21
15	Western University of Construction	0	0		2	30
16	Can Tho University of Medicine and Pharmacy	13	6	2	25	62
	Sum	139	50	31	333	1,793

Regarding postgraduate students, they are not proactive in arranging their time for studying in class, self-studying and self-researching; most students have to arrange their work and family while studying. At the same time, during the learning and research process at the training institution, students expect too much from lecturers in terms of learning materials and lectures in class; not many students collect materials and research the course content according to the outline, leading to the situation where students do not fully understand the meaning and content of each item in the outline, thesis, dissertation, and scientific research topic, so the training efficiency is not high.

It is argued that the main reason why postgraduate training activities have not met the human resource needs in the Mekong Delta region is due to the shortage of lecturers at universities in the region (details in Table 1). With 16 universities, there are only 31 professors, 333 associate professors and 1,793 lecturers with doctoral degrees. At the same time, the number of doctors is mainly at Can Tho, Tra Vinh, Dong Thap, An Giang and Vinh Long Technical Pedagogical Universities; therefore, the remaining schools will find it very difficult to have enough staff to open more schools for Postgraduate training.

4.2. General assessment and evaluation of the current situation of the teaching staff participating in training high-quality human resources in the Mekong Delta region

4.2.1. Strengths

First, in recent years, universities in the Mekong Delta region have continuously improved and promoted existing resources to improve the quality of postgraduate training. At the same time, many joint programs and postgraduate training projects implemented by central ministries and branches are the results of coordinated efforts between universities and provinces and cities in the region, which are recognized as “bright spots” to contribute to meeting the needs of learning to improve qualifications, professional capacity, and skills as well as having the foundation and conditions to continue developing human resources in the region.

Second, universities in the region have a high proportion of young lecturers; they are a force of capable, ambitious, enthusiastic, eager to learn, formally trained, modern, striving for high level and eager to assert themselves. To support development, universities in the Mekong Delta region have gradually exploited lecturers with academic titles from many major universities in the country, both doing guest lectures and supporting the training of young lecturers. Along with the team spirit, the spirit of solidarity, cooperation and mutual exchange, joining hands to carry out the movements of the industry, it has created the appearance of a dynamic and creative teaching staff; this is a favorable basis for the professional qualifications and professional capacity of the teaching staff to be raised very quickly, narrowed and progressed to be on par with major universities in the country; this is a good premise to contribute to meeting the requirements of fundamental and comprehensive innovation of higher education, including postgraduate training activities.

Third, Can Tho University - a key university; especially in the fields of agriculture, aquaculture, biotechnology, this university always has leading experts not only domestically but also prestigious with universities around the world; as a pilot for the implementation of postgraduate training tasks with 21 doctoral majors and 50 master’s majors; at the same time, is the gateway for exchange with major international scientific centers. And hopefully, Can Tho University will be the nucleus and multi-dimensional connection node to organize the implementation of linking the teaching staff with other universities in the region to participate in postgraduate training activities.

4.2.2. Limitations and disadvantages

Teaching staff development activities do not meet the requirements for postgraduate training: According to Circular No. 02/2022/TT-BGDĐT of the Ministry of Education and Training, to open a postgraduate training major, each university must have at least 5 lecturers with doctoral degrees (including 2 associate professors or 1 professor) with the appropriate major code; and currently, many universities in the region do not meet this

criterion when opening postgraduate training majors. We believe that this is the biggest bottleneck and inadequacy that universities in the Mekong Delta region are having.

Reason: It is almost impossible to recruit more lecturers with doctoral degrees from other places, but every year, schools in the region still have to accept many lecturers who have doctoral degrees and ask to transfer to work in other regions after training. At the same time, for a long time, it has been impossible to effectively implement and organize the connection of teaching staff between schools participating in postgraduate training. Consequences: with 16 universities in the Mekong Delta region, there are only 139 master's training majors and 50 doctoral training majors; even 6 universities in the region do not have a postgraduate training major code; a limitation that is difficult to find a solution for in the near future.

The scientific research performance of the teaching staff is still low: Many lecturers have not ensured the balance between teaching and scientific research functions. The number of research topics and published works of universities in the region is not commensurate with the important function that lecturers must undertake, which is scientific research. Research products are not closely linked to serving the socio-economic development of the region, or are still overlapping between schools, so the application efficiency is not high. Many universities in the region have not yet built a research program with the participation of foreign scientists - a bridge for publishing research works in international scientific journals.

Reason: stemming from the teaching staff being both insufficient (due to the rapid growth of university education) and weak (due to the small number of lecturers with doctoral degrees and professor and associate professor titles, and the lack of leading experts). In addition, there is the weak attraction of funding sources for scientific research and the motivation to stimulate researchers is not strong enough. Consequences: The teaching staff is far from meeting the requirements of the socio-economic development of the region. (especially scientific

and technological experimental activities); reduces enthusiasm for scientific research and the ability to improve the qualifications of the teaching staff (especially young lecturers); “silver” the brainpower, wears down the intelligence and scientific capacity of highly qualified lecturers. From there, it has directly affected the quality of postgraduate training such as: graduate students and doctoral students are not trained much in scientific research skills, do not have conditions to practice research thinking; and a consequence is that there is little contact with scholarship funding organizations; therefore, the opportunity for young researchers here to get scholarships to study abroad will be very rare.

The quality of the teaching staff is not commensurate with the task of postgraduate training: Except for Can Tho University, other universities in the region have the common characteristic of a shortage of leading lecturers compared to the next generation of lecturers. Some young lecturers, with experience and capacity, are not enough to impress with their achievements in teaching and scientific research. Many schools are lacking good lecturers, leading scientists who are capable of establishing diverse exchange relationships, participating in conferences and scientific seminars with advanced universities in the region and internationally.

Reason: Because many universities in the region, when they were colleges, had a long time when many lecturers were not interested in going to school to improve their qualifications; it should also be mentioned that the operating time of most schools in the Mekong Delta region was not much, so with that short time, the schools could not create a clear change, could not effectively implement the team development strategy, and could not filter out weak people. Consequences: The teaching staff in each major in each department of the schools is not developing synchronously, the situation of “surplus but shortage, shortage but surplus” is still continuing; and this consequence will pose great difficulties for the task of organizing postgraduate training activities in the Mekong Delta.

4.2.3. Challenges

- The requirement to expand the scale and

improve the quality of postgraduate training with facilities, equipment, information, financial resources... is interrelated and affects each other by an equation whose unknowns are constantly changing. This is the first challenge.

- Because the Mekong Delta is a slow-developing region, far from the major centers of the country, it has caused a negative impact on the attraction from universities, so “inviting” lecturers with high academic titles and degrees to work here is almost impossible. And in reality, the flow of high-level brainpower is always going in one direction, but rarely in the opposite direction, so universities in the Mekong Delta have difficulty finding a strong enough team of lecturers to participate in postgraduate training. This is the second challenge.

- The competitiveness and cooperation capacity of universities in the region are still weak, due to the insufficient strength of the teaching staff, leading to the quality of postgraduate training (especially in high-tech and key industries) not meeting the requirements of practice, not having a brand and not building prestige with the community. This is the third challenge.

4.2.4. Opportunities

First, Compared to the teaching staff of universities in other regions, the teaching staff of universities in the Mekong Delta have received many preferential policies; including the policy of supporting lecturers to study from the budget of provinces and cities through the “Mekong 1000 Program”. At the same time, the State has had a special policy of priority for higher education in the Mekong Delta, including appropriate attention to improving the qualifications of the teaching staff through projects from loans and bilateral agreements.

Second, the open management mechanism of universities has created openness and close connection between schools and management agencies, local authorities, and implemented a training mechanism associated with the use of labor resources... In addition, with the current orientation of autonomy and self-responsibility of higher education institutions, it is truly an opportunity, promising many prospects for schools to proactively implement the

linkage strategy, promote strengths, and overcome their “white spots/low points” through activities of linking teaching staff to participate in postgraduate training activities.

Third, universities in the Mekong Delta can learn from experience and inherit achievements in postgraduate training activities from major universities in the country such as Hanoi National University, Ho Chi Minh City National University, etc. and advanced foreign universities. That allows improving the quality and efficiency of postgraduate training activities to meet the human resource needs of the Mekong Delta.

5. Orientation of linking teaching staff in training high-quality human resources

5.1. Purpose of activities to link teaching staff in training and scientific research activities

From a low starting point with many difficulties, in recent times, many provinces and cities in the Mekong Delta have proactively coordinated with universities to “accelerate” in the “chase” with other regions in human resource development. However, the recent efforts to link up have only been “connecting” and “filling the gap” activities; reality requires integration and fundamental policies to create better changes from many programs, creating a large, practical and effective movement; at the same time, it is necessary to “direct the demand” to the labor market, the demand for human resources of enterprises, agencies and units in the region, taking that as a driving force for developing training activities. Therefore, the main goal of this solution is to coordinate the reasonable use of lecturers and scientists. in the Mekong Delta region to overcome weaknesses in training effectiveness of each school.

Teaching capacity is a necessary criterion for lecturers and an important and indispensable criterion is scientific research capacity. Therefore, it is necessary to make these two activities always go hand in hand and actively support each other in the development process. Improving scientific research capacity for lecturers is a process that helps lecturers constantly strive to acquire scientific knowledge, improve thinking and creative methods, towards discovering

and correctly solving arising practical problems, with extremely important roles expressed in the following aspects: (1) Helping lecturers dig deeper, grasp more closely the professional knowledge that they are directly teaching; at the same time, they will update information themselves, receive more new knowledge from different sources, in order to promptly adjust and supplement inaccurate knowledge in their lectures; (2) Developing independent thinking, creativity, ability to work independently, cultivating knowledge and cognitive methods, scientific outlook on life for lecturers; (3) Innovating teaching content and methods to contribute to improving the quality of education; and (4) Creating internal motivation to stimulate positivity, initiative and contribute to enhancing the position and prestige of the lecturers themselves when each scientific research work is highly appreciated, articles participating in seminars and articles in specialized scientific journals are published.

Lecturers can be those who are directly teaching at schools, or working at different institutes and research centers. Even lecturers and highly qualified scientists who have retired abroad but still meet the selection criteria will still be focused on mobilizing with the motto: increasing efficiency in the present, creating potential for the future.

5.2. Content of the teaching staff connection

5.2.1. Linking lecturers in teaching activities, guiding graduate students and doctoral students

This is the prerequisite content of the joint operation mechanism because it is the central element. In practice, there must be a clear mechanism for the exchange of lecturers, there must be management, planning and regular organization through a binding contract of responsibility. When exchanging lecturers, it will combine to carry out important work: training and fostering young lecturers for the joint institutions; in other words, the exchange of lecturers is an opportunity to share and improve the capacity of the teaching staff of the schools.

5.2.2. Linking information sharing activities and information orientation in human resource training

This activity mainly takes place in the aspect of collecting, updating and providing professional and

technical information according to each specialized training field. Lecturers regularly shared information in direct or indirect forms through the forms of providing free information online or exchanging information services. Such information activities are very important to ensure the oriented circulation of knowledge and intellectual resources - invaluable assets of universities. At the same time, the teaching staff will cooperate to compile textbooks and reference materials; especially, focusing on cooperation to build an electronic library system.

5.2.3. Linking to implement scientific research topics and projects at all levels

Through the linkage, the intelligence and brainpower of the teaching staff are mobilized, ensuring the quality of regional and state-level scientific research projects and topics and implementing topics with many local factors (topics and research projects can be received from the Nafosted Fund, from ministries or from provinces/cities). Thereby, creating a mechanism for exchanging information on scientific research works and annual lists of Science and Technology topics and projects between the affiliated schools; at the same time, also creating a coordination mechanism in training, consulting and technology transfer activities.

5.3. How to implement the association of teaching staff

5.3.1. Steps to deploy linked content

First: Determine practical needs to organize the association of teaching staff; specifically: each university in the Mekong Delta region is responsible for determining practical needs based on forecast information indicators; at the same time, universities in the region must establish specific capacity indicators for each lecturer, in order to plan the team and have a strategy to foster, improve qualifications, increase depth in quality and breadth in the field of training of each school and for the entire system of universities in the region. This index can be based on assessment standards, professional qualifications, recommendations from the Science and Training Council, work process, feedback evaluation from the teaching staff and from learners.

Second: Make a list of expert lecturers participating in the association; accordingly:

(1) Gather a list of expert lecturers who are directly teaching at universities or have retired but are still qualified in health and enthusiasm for training, have high qualities, abilities and qualifications that have been widely recognized by the teaching staff and by learners, and have been confirmed to be highly effective in actual training. At the same time, the list of proposed lecturers participating in the association will also be introduced by the schools from the team of scientists at agencies, research institutes in the region, in the country and Vietnamese professors returning from abroad; (2) For professors returning from abroad to participate in postgraduate training, in our opinion, universities need to pay attention to 2 issues: finding them and attracting them. To do so, schools need “creative” solutions, accepting that there are professors who only return for 2 to 3 months each year (but, on the contrary, they need to commit to returning that much each year for the next 3 to 5 years, so that schools can proactively develop teaching programs for them); it is important to arouse from Vietnamese professors abroad their personal feelings for their homeland, the effectiveness of their contributions, and consider it a source of pride for each person.

5.3.2. Building an operating model of research groups

First: Share the individual plans of the research team members; accordingly, Some key questions that members should answer to share with each other include: (1) What goals do you set for this school year? (2) What main activities do you plan to spend time on? and (3) What are your expectations when participating in scientific research this year. It is important to note that commitment is extremely important for a long-term activity of scientific research; that is, if members decide to participate in research with the group, they need to have commitment, and of course, they need to adjust their plans to match the group’s goals.

Second: Divide roles and tasks within the research team; This will be an opportunity for each member to understand each other better; especially, the strengths and weaknesses to help the group

work together most effectively. In particular, the team leader will be the leader of the group and often has more outstanding qualities than other members such as the ability to lead, persuade, inspire, plan, organize well (divide work), communicate well, have a comprehensive view; accordingly, the team leader needs to share and unify the roles and responsibilities of each position so that each person understands clearly and the work process is most effective.

Third: Unify working principles in the research group; This is important because it will help the research team operate more effectively, when all members are aware of what they should and should not do during the process of working together. Besides, it also helps the team avoid possible troubles that may occur later if the members of the team disagree on the way of working; therefore, the members of the team may need to convince each other to agree on the group’s principles.

In short, the organization The association will increase the teaching potential of the teaching staff, increase scientific potential and research cooperation, in order to improve efficiency and maximize the inherent ability of each lecturer. The association will make the teaching staff become the common “brain power asset” of universities in the region. The association will also create multi-dimensional coordination and interaction, the resonance of individual capacities of many people, encourage the initiative and innovation of lecturers to form a synergy in postgraduate training activities; at the same time, the valuable experiences and creative ideas of each lecturer will no longer be limited to a university but can spread throughout the region and the whole country.

6. Conclusion

Economic integration is taking place urgently and vigorously in our country. Opportunities are opening up, challenges are coming to our country’s higher education in general and higher education in the Mekong Delta region in particular. Exploiting opportunities well, clearly recognizing challenges to have policies and solutions to overcome them, are the issues that universities need to pay attention to in the goals and tasks of reforming higher education

today. The inadequacies in the structure of high-level training sectors and faculties need to be resolved with appropriate solutions according to the characteristics of each university in the region, based on the factor of sustainable development. The proposed solution to improve the quality of training high-level human resources is that the training program needs to supplement and enrich the knowledge of leadership and management skills, connect theoretical and practical research, control and focus on promoting the role of learners; At the same time, it is necessary to link the teaching staff between domestic and foreign universities operating under an open mechanism with the orientation of increasing potential in training activities to meet the requirements of fundamental and comprehensive educational innovation.

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