

IMPROVING THE EFFECTIVENESS OF RESEARCH GROUPS AT DONG THAP UNIVERSITY

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Article history

Received: 19/4/2022; Received in revised form: 24/5/2022; Accepted: 26/5/2022

Abstract

Developing research groups is an inevitable trend of domestic and foreign scientific research organizations to gather forces and scientific intelligence to promote breakthrough development in science and technology. This article focuses on developing research groups at Dong Thap University to improve the quality and elevate the quantity of research results published in prestigious national and international scientific journals, boosting comprehensive cooperation in scientific research-technology transfer to meet current educational innovation requirements.

Keywords: *Developing, effectiveness, research groups.*

NÂNG CAO HIỆU QUẢ HOẠT ĐỘNG NHÓM NGHIÊN CỨU Ở TRƯỜNG ĐẠI HỌC ĐỒNG THÁP

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Lịch sử bài báo

Ngày nhận: 19/4/2022; Ngày nhận chỉnh sửa: 24/5/2022; Ngày duyệt đăng: 26/5/2022

Tóm tắt

Phát triển các nhóm nghiên cứu là xu thế tất yếu của các tổ chức nghiên cứu khoa học trong và ngoài nước nhằm tập hợp lực lượng và trí tuệ khoa học để thúc đẩy sự phát triển đột phá về khoa học công nghệ. Bài viết này, tập trung bàn về phát triển nhóm nghiên cứu ở Trường Đại học Đồng Tháp nhằm nâng cao chất lượng, tăng số lượng công bố kết quả nghiên cứu trên các tạp chí khoa học có uy tín trong và ngoài nước; đồng thời, thúc đẩy hợp tác toàn diện về nghiên cứu khoa học và chuyển giao công nghệ đáp ứng yêu cầu đổi mới giáo dục hiện nay.

Từ khóa: *Hiệu quả, nhóm nghiên cứu, phát triển.*

DOI: <https://doi.org/10.52714/dthu.11.3.2022.947>

Cite: Nguyen Van De, Ho Van Thong, and Phan Trong Nam. (2022). Improving the effectiveness of research groups at Dong Thap University. *Dong Thap University Journal of Science*, 11(3), 3-8.

1. Introduction

A research group is a group of scientists who build a scientific research and development direction with objectives and research plans for each period; at the same time, creating a specialized and interdisciplinary research environment to inherit and promote scientific and technological research activities in the units (Faculties, Departments, Centers, etc.) of Dong Thap University-since then, forming strong research groups with good research capacity to promote the research capacity of individuals and research groups in units within the university and to cooperate outside the university to promote research activities. Research at the international level; improve the quality and and elevate the quantity of research results published in prestigious national and international scientific journals, boosting comprehensive cooperation in scientific research-technology transfer. This article focuses on developing research groups at Dong Thap University to meet current educational innovation requirements.

2. The need to develop research groups at Dong Thap University

Developing research groups is an inevitable trend of national and international scientific research organizations to gather forces and scientific intelligences to create competitively scientific and technological products that meet the current requirements and promote breakthrough development in science, technology, and socio-economics in the context of the rapidly developing world of science and technology. Research group development is institutionalized and stated in Vietnam Government's Decree No. 99/2014/ND-CP issued on October 25, 2014, "Regulating investment in developing potentials and encouraging science and technology activities in higher education institutions". This Decree also specifies the priority of investment from the budget for higher education institutions that have potentials in research human resources, especially powerful research groups.

Dong Thap University has defined the mission as "Training highly qualified and

multi-disciplinary human resources, in which education science and teacher training are the core; doing scientific research and providing community services; contributing to the socio-economic development of the Mekong Delta and the whole country." To fulfill the mission and achieve the goals of this vision, it is required that the University strengthen and further promote scientific research-technology transfer activities. Accordingly, research groups are the nucleus of promoting these activities among the units in the university to gather human resources and connect with national and international partners to perform research tasks and create high-quality products. At the same time, these groups help train scientific staffs according to the orientation and research implementation plan of research groups is the basis for the university to consider prioritizing research funding and improving the efficiency of public science activities-technology in a new context.

3. Propagating regulations on activities of research groups at Dong Thap University

3.1. Criteria of a key research group

- Comprises at least 05 members, namely: a group leader and 04 or more other members; in which the group leader and at least half of the other members must be affiliated to Dong Thap University;
- Has the research topic, research plan, research time specified and approved by the university;
- Commits to the university on the number of research products during its operation, with annually at least 01 ISI-indexed article published or 02 Scopus-indexed ones or 03 one-point articles published nationally (following the State-Professorship Council), or 01 monograph, text/reference book;
- Has 03 years of working, which can be extended, but the total operation time (including extension) must not exceed 05 years (Dong Thap University, 2018).

3.2. Criteria for membership of the key research groups

- Possessing a master's degree or higher;
- Having research capacity and being the primary author of at least 01 article published in a specialized journal in line with the orientation of the key research group;
- Voluntarily joining the key research groups and being able to participate in the group's activities during the time of the focus group's activities;
- Participating in no more than 02 key research groups and being the leader of no more than 01 key research group at the same time;
- Having permission of the governing bodies for joining the key research groups if the members are not affiliated to Dong Thap University. (Dong Thap University, 2018).

3.3. Products of the research groups, including: (i) ISI/Scopus-indexed Articles; (ii), Articles published nationally (following the State-Professorship Council); (iii) Articles reviewed and published in full text in the proceedings of prestigious national and international specialized scientific conferences; (iv) Monographs, text/reference books published (Dong Thap University, 2018).

At the same time, the products must satisfy the following conditions: (i) They have topics in line with the research direction of the group: ISI/Scopus-indexed Articles, Articles published nationally (following the State-Professorship Council), Articles reviewed and published in full text in the proceedings of prestigious national and international specialized scientific conferences, related books; (ii) The main author of these products must be the group leader or a group member; (iii) The product clearly states that it is yielded by research groups affiliated to Dong Thap University; (iv) The product must be published during the working period of the groups (for articles, they should be published online first) (Dong Thap University, 2018).

It should be emphasized that, in scientific

research, there must be a research topic to have a basis for publishing research results; therefore, the research products will resonate to meet the very urgent goals of each lecturer of Dong Thap University in the coming period; Accordingly, it will contribute to being eligible for awarding Level-1, or Level-2 lecturers (or Professorship titles) such as: increasing the scores of scientific works, written textbooks, monographs, scientific projects and patents.

3.4. Operational budget of the research group

The group makes an estimate of the use of funds in accordance with the group's activity plan to ensure the completion of the research product as committed, in accordance with current regulatory norms (through the advice of the Planning Department, Finance, Science and Technology Department), and use the funds strictly according to the estimate approved by the Principal; Operational funds are used for the following activities: (i) Outsourcing research support activities (purchase of materials, collection, data processing, data, etc.); (ii) Attending domestic and foreign scientific conferences (participation fees, travel expenses, accommodation, and so on); (iii) Products published (fees for submitting papers, printing and publishing books); (iv) Products Transfer (hosting seminars to announce products); (v) Remuneration for group members; (vi) Expenses for group administration and activities (cost of stationery, photocopies of documents, travel of research team members); (vii) Other expenses in accordance with current regulations of the State, the University or with the consent of the Principal (on the basis of advice from the Department of Planning and Finance, the Department of Science and Technology) (Dong Thap University, 2018).

4. Proposing measures to improve the performance of the research groups at Dong Thap University

4.1. Identify goals and share individual plans of research group members

Sharing a personal plan among group members is essential because the group must know its

resources and determine the extent to which it is feasible to work together. Some key questions that members should answer to share with each other include: (i) *What goals have you set for this school year?* (ii) *What key activities do you plan to spend your time on?* (iii) *What are your expectations when participating in scientific research this year?*

If group members do not know the answers to the above questions of each member, the possibility of the group being "broken" will be very high if many members rank group research as a priority. The first step is too far from 1. Therefore, if you do not know this information well before inviting a friend to the group, this is the necessary step to take to decide whether to keep the member in your group or not. It should be noted that commitment is extremely essential for the long-term performance of scientific research; that is, if a participant decides to participate in a study with the group, commitment is required, and of course, the adjustment of his or her plan to align with the group's goals.

With a research project, goal setting is important because it guides all group members on what to do and needs to be held accountable for the shared goal. Accordingly: (i) The first goal that research groups should aim for but often overlooked is the goal of "completing the research"; this is not the easy product of this journey, and it will bring a very strange feeling to the authors; (ii) The second objective will help the group measure the "quality" of the product, which is relatively represented by the ranking of the research work at conferences or scientific awards; When the group clearly knows this goal and all members work towards it, the group will be more motivated to act with higher results.

Before going into deep research on a problem, the group needs to at least figure out the basic things they will do and the difficulties or problems they might face; find a scientist who has experience in scientific research or a teacher you "fan"; In particular, it is necessary to connect with scientists who have participated and won high awards in scientific research activities to consult more about what the research team is about to experience.

4.2. Division of roles and tasks in the group

This will also be an opportunity for each member to get to know each other better; In particular, the strengths and weaknesses to help the group combine best. In particular, the leader will be the leader of the group and often has outstanding qualities over other members, such as the ability to lead, persuade, inspire, plan, and organize well (work division), good communication, overview, and other ones. Then, the group leader needs to share and agree on the roles and responsibilities of each position so that each person understands and the working process is effective, fruitful.

4.3. Agreement on working principles in the group

After determining the goal and dividing the group's roles and tasks (please emphasize that this is a common goal that all members have agreed on), the next thing that the group should do is the agreement on the principles of doing so. This is very important because it will help the group operate more effectively when all members are aware of what they need to do and what not to do during the process of working together. In addition, this also helps it avoid troubles that may arise later if group members disagree on how to work.

Accordingly, group members should take the time to agree on working principles, and once agreed; all should respect and follow. It is not surprising that this activity takes up a lot of time with serious working groups because it is not easy to come to a common agreement on how to work for different people; Therefore, group members may need to persuade each other to agree on group principles.

4.4. Development orientation of the research group of Dong Thap University

In 2020, Dong Thap University established 10 key research groups with 83 participants from inside and outside the university, including: 01 Professor, 06 Associate Professors, 34 Doctors, 3 Masters, 05 Bachelors and 04 students. The research group was established to serve the goal of the project "Building a natural science journal

of the Science Journal of Dong Thap University to join the ACI system". Areas of research groups include: Research on Organisms with the Environment; on Environmental Ecology and Biodiversity; on Biology; Chemistry research; research on Two-Dimensional Materials (2D Materials); on Dynamical Systems and applications; on Calculus; study on Geometry - Topology; on Applied Mathematics; on Optimization and Applied Mathematics. Accordingly, in 03 years (from 2020 to 2022), each research group was supposed to publish at least 06 articles in the Science Journal of Dong Thap University, specializing in Natural Science. After 2 years of operation, the results obtained from the groups' research activities are respectable and have basically met the set goals.

In the new context, the established research groups need to continue to find the "Feasibility Study Problem"; In particular, we would like to suggest issues that need attention to develop more research groups in the field of applied education science: (i) Renovating the 2018 General Education Program; (ii) Developing a contingent of teachers to meet the 2018 General Education Program; in which, there will be new educational activities and subjects (local education; experiential and career guidance activities; technology; art; economic and legal education, etc.); (iii) Building school culture and human rights education in the national education system.

It should be emphasized that the training programs of Dong Thap University are mostly in the field of application); Therefore, Dong Thap University urgently needs more research groups with the participation of members in the following areas: (i) Education Management; (ii) Education; (iii) Method of teaching the subject; (iv) Psychology; (v) Economics and Law; (vi) Arts.

About funding for the activities of research groups in the next period: Based on the Science and Technology Operation Plan of Dong Thap University from 2020 through 2025, issued under Decision 386/KH-ĐHĐT dated On May 11, 2020, funding for science and technology

activities in general and of research groups in particular will come from the following sources: (i) Funds allocated according to the tasks of the Ministry of Education and Training; (ii) Funds from the National Foundation for Science and Technology Development (NAFOSTED); (iii) Funds for scientific and technological activities of Dong Thap University and other organizations. We think that this is a bottleneck and cannot be satisfactorily resolved; Reasons: Funding sources allocated according to science and technology tasks of the Ministry of Education and Training have not increased every year; Nafosted mainly funds basic research, funding comes from successful bidding of scientific research projects. Education in provinces/cities in the Mekong Delta is not much.

Therefore, we suggest: (i) Research groups to strengthen their search for research problems to propose topics from Nafosted and the funding of the Departments of Science and Technology; (ii) Applied studies need to be linked with the reality of the Mekong Delta, first of all, Dong Thap province, so that funding opportunities will be more feasible; (iii) Dong Thap University needs to balance funding sources for annual science and technology activities; In which, there should be a topic with a code of the Ministry of Education and Training, but 100% of the school's funding (however, research groups must accept that the budget for each topic of this type will be lower than 100 million dong).

5. Conclusion

After having the basic visualization of research activities, it is believed that each research group member has the baggage to go further - find more feasible research topics. It is worth spending a great amount of time reading, researching and choosing the most appropriate topic. Remember, doing scientific research is very proactive, so don't wait until you have a few days to register to start. Hopefully, with the above sharing, the research groups - especially those who have experienced and achieved a lot of success in this activity will continue to inspire new generations of lecturers.

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