

PROMOTING STUDENTS' INTEREST IN SCIENTIFIC RESEARCH ACTIVITIES AT UNIVERSITIES OF EDUCATION

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Abstract. Scientific research is regarded as one of the most crucial activities of students at universities of education. It is a mental and intellectual activity, which helps students to reach science issues and apply theories and scientific research methodologies at class into practice, contributing to solving scientific problems in their real life and later career. Therefore, students at universities of education may widen their knowledge about research in their later professional development. In this paper, the researchers present the current situation of students' performance in scientific research activities; difficulties and challenges that they have to encounter, thereby proposing some solutions not only to get students involved in scientific research activities but also to enhance the quality of students' scientific research projects at universities of education.

Keywords: Scientific research, research activity, scientific research competency, teacher student.

1. Introduction

Student scientific research is an important and necessary activity, which helps improve the quality in education and training [1]. Along with the process of global economic integration, the integration of education and training, building and developing the movement of scientific research among students is an urgent requirement to improve the quality of training; to promote the activeness and creativeness of the students; to meet the requirements of professional and social needs in the current period.

With the aim to encourage students' capacity of self-studying, educational universities have offered the scientific research activities in their curriculums. On that basis, pedagogical departments have given many activities to promote students to explore and discover scientific research to create new valuable works [3]. In fact, there are a large number of students getting involved in scientific research. The quantity and quality of research has much more improved. Many research projects of students won valuable prizes. Some were even evaluated as high practicality. In general, the scientific research activities among students, however, have not met the requirements yet. The number of qualified subjects is rather low, the research themes do not break out of the old paths, lack of diversity and in-depth research. The limitation here is that students are not aware of the benefits from scientific research that they achieve [6]. The key problem is that the financial support for students in scientific research is low; many schools lack facilities, instructors; there is no promotion policy to encourage teachers to contribute to scientific research.

Another problem is how to guide teacher students to do research effectively. This is the question to which many teachers are finding the answer. To solve the problem, the researchers may consider three following aspects: (1) the reality of participating scientific research at educational universities. (2) Difficulties and challenges for students when taking part in research activities. (3) Necessary solutions to improve the effectiveness among students' scientific research.

2. Content

2.1. Overview of students' performance in scientific research activities at universities of education

Nowadays, students' movement involved in scientific research has increased significantly in universities of education. Educational departments have also constantly organized a lot of activities such as Students with scientific research, The youth with innovative science, or Talks about science, Scientific research in high school, etc. which have attracted a considerable number of students taking part in research. As a good sign, scientific research activities among the students have received numerous awards at university-level and ministry-level. However, in recent years, the students' studies are not new and applicable in practice. The number of students participating in scientific research is somewhat reduced. Worryingly, the scientific theses are still sketchy and follow academic-based theory. This fact is resulted from both subjective and objective causes. In 2015, the researchers surveyed more than 200 students at Thai Nguyen University of Education on their scientific research activities. Only 20% of the students surveyed were interested in scientific research (figure 1) and 36% of them were aware of the benefits and purposes of scientific research (figure 2) below.

Are you interested in scientific research activities?

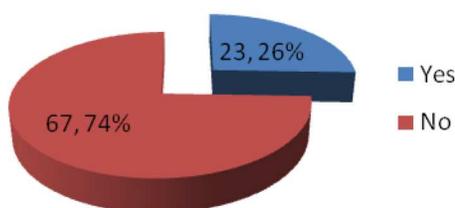


Figure 1: Students' interest in scientific research activities

Do you think attendance in research activities brings many benefits for students?

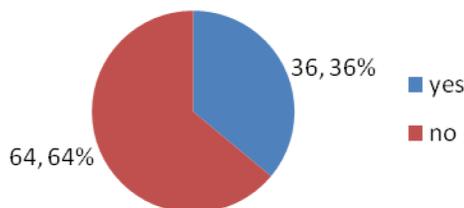


Figure 2: Students' awareness of advantages of involving in scientific research activities

It can be said that scientific research is a very important activity for students; but they, in fact, do not fully understand its role and significance. Educators are also puzzling this problem out. It is, therefore, necessary to find out the problems and challenges that students are facing up with. On that basis, educators can offer methods to attract and inspire them to participate in research activities.

2.2. Difficulties and challenges

Scientific research has always been regarded as one of the most important activities of students at universities and colleges. However, is this kind of activity really attractive, extensively spread, or only limited to a certain part of students? Are students always eager with scientific research or not? Has the Students' Union done well its roles like creating active environment,

supporting good students to take part in scientific research? These questions seem to concern many young people.

One of the causes that makes students hesitate to participate in doing the research is the lack of academic scientific research environment. In Vietnam, under a university training program, in common, and educational universities, in particular, students must spend most of their time attending classes, reviewing lessons, doing tests, exams, theses, etc. Moreover, with the application of the current school credits, many students proved to be passive and lack of clear objectives in their studying. Thereby, they are not able to develop a specific and scientific learning plan [5].

Another reason is, due to the assessment based primarily on test results at the end of courses, students have considered scientific research minor and unnecessary.

On the other hand, a significant proportion of students are too passive to explore, study materials (especially foreign documents) and not keen on learning new technologies today while scientific research activities require students to have extensive knowledge, good skills, appropriate working schedules, and love to explore.

In addition, the infrastructure is not sufficient, modern, and synchronous. Many facilities are invested and improved significantly in recent years. However, with the great progress in computer science today, these devices cannot up with new requirements and become inefficient.

Another cause is that there are not many connections between research environments with pedagogical practice schools. The lack of linkages between pedagogical practice schools and universities is also a major barrier to scientific research. This not only prevents students' projects from becoming necessary applications, but also wastes a major source of investment for scientific research.

Moreover, the main reason that hinders students to participate in scientific research is their own activeness in academic studying is not high. Students only study and revise lessons when the exams are coming. They just "go around" with lessons they got in class, not actively explore opportunities to study and improve practical knowledge. A large part of students today lack the passion for studying as they do not set clear targets and specific plans [3].

Besides, in the form of credits nowadays, many students proved passive and uninformed orientation in studying and training in the university years. Some do not understand what the knowledge volume of each subject in their school curriculum is for, and how important it is to establish a complete system of overall knowledge for students. This explains why many students cannot build a specific and logical plan for their studying. In fact, at the time of course registration, many students only register their subjects in form of "friends invite each other", which leads bad order and management of subject system for themselves. Consequently, they are hardly able to achieve good results.

Students' understanding of the scientific research movement at universities is not enough in terms of both quality and quantity. There is no formal information channel to publish such contents on this issue to the students, so they may consider scientific research an abstract work, just for excellent students only. Moreover, there is no mechanism to attract students to participate in scientific research activities. Many young people do not understand what scientific research is like, and do not know where to start or what to study [2].

2.3. Recommendations

Currently, only students after second year get access to scientific research, which means that there remains just over a year for students at university level while at the end of the course, students are very busy with studying, internship and doing thesis. Therefore, to encourage students

to do scientific research, there must be further cooperation between the university, faculties, functional departments, the Youth Union, and school Student Association, in which the mechanism of motivation and encouragement must be strengthened so that students become active to take part in scientific research.

a. In term of Universities of Education

First, curriculum needs improving. Current curriculums are theory-based, and lack of practice. The volume of non-related subjects has a remarkable proportion. For example, for Bachelor of English teacher at Thai Nguyen University of Education, the first year students only learn a few basic subjects of English major. In addition, the duration of each theory module is quite large while the practice is quite limited. Some academic subjects, which are not attached to the current practical requirements will somehow make it difficult for students to find a new direction for scientific research topics.

Second, measures to encourage students to participate in scientific research must be taken into considerations. Students can be considered exceptionally graduated, or do not need to do graduation thesis, if their scientific research projects proved that they are applicable in practice. This will be a great motivation for many students to participate in scientific research. For example, in South Korea, if a university student has a scientific paper published in conferences or specialized magazines, it is recognized his/her graduate thesis [4]. Therefore, to encourage students to participate in scientific research, universities should regularly organize creative competitions, and reward deserving students who get high achievement in scientific research.

Third, there must be connections between universities and pedagogical practice schools. Pedagogical students should attend real teaching hours, visit classes at the high school as they are freshmen at university. Besides, the scientific research module needs to be introduced to students earlier. Practice at high schools may help students inspire with new ideas in the process of scientific research. Thus, the scientific research will become realistic. In particular, during practicum, students are encouraged to conduct teacher and pupil interviews or surveys, classroom observation analysis, research trend proposals, etc. These activities would help students to develop their scientific research competency.

Finally, it is necessary to strengthen the organization of workshops, seminars to introduce, equip students with modern learning methods; build targeted learning attitude, studying orientation; enhance students' exchange between those who succeed in learning, scientific research, thereby lighting up dreams, ambitions among students.

b. With regard to Youth Union and Student Association

It is necessary to learn about the aspirations of students in each course to gather and solve problems. To do this, the Union staff must be aware of the studying situation of each individual and often report it to higher levels. On the last 26th of April 2016, British Council in collaboration with the Vietnam Student Association organized the contest: "International Fame Lab – Seeking for the ambassador of science communication ". At the competition, Ms. Cherry Gough, Director of British Council in Vietnam stated that each year, British Council will organize this competition to enhance students' interest in scientific research activities. This is a useful playground attracting hundreds of students in the whole country who can promote innovative ideas for their scientific research topics. Students with excellent proposals have been selected to report in England. So why do not we relate such competitions to encourage students to do scientific research?

The Student Association at all levels needs to have activities to promote propaganda, spread much more information about scientific research to students, help each student be aware of the importance of scientific research activity and that this kind of research is not a luxury, it is, otherwise, very practical to themselves. What the Association really needs is a bridge between

students and school, organizations and research centers. Therefore, it will become an official channel, which can ensure the accuracy of information between the parties. This, thereby, improves the quality and applicability of students' scientific research projects.

c. With reference to specialized departments

Departments should actively advise the committees, the School Board to support and enable students to promote their creativeness in the following forms: financial support to implement the project, registration of copyright, contact related organizations to introduce scientific projects, which are highly applicable.

d. Regardless of teaching staff

In the process of teaching, teachers are the people who inspire the scientific passion for students through their lessons; thus, the role of the teacher is always motivating and inspiring research activities in students. In each module, a teacher can design a mini-project with the aim getting students in groups involved in scientific research activities.

e. Regarding students

Each student themselves needs to be proactive in planning their learning and research, identifying clear goals, choosing for themselves a suitable and effective method of studying and research.

Students need to improve their self-discipline. In addition to lecture time in class, they should be active in self-studying at home, in the library to gain knowledge and skills, including self-reading capacity; organize more discussions in which students must actively present their views and debate.

3. Conclusion

Nowadays, scientific research has become an essential part of the training process in educational universities. However, it should be aware that this is a long process, in which each student must be equipped with solid knowledge base, know what to learn and how to foster professional knowledge, carry out research scientifically, etc. to get a scientific research project with trenchant content and correct method. With the aim to get students involved in scientific activities, there should be synchronized participation of educational universities, specialized departments, the Youth Union - Student Association, teachers and students. Schools need to make a new breakthrough in equipping students with knowledge and scientific research environment right from the first years of college and university program. The new approach in education and training requires consensus and support from different sides in which school plays the leading role to the success of the training process. Students are the focus of the training process, enabled and provided with necessary knowledge to carry out research and improve the scientific research ability.

By participating in scientific research, students will become familiar with a small-scale study. This will help them get access to specific issues, consciously widen their thoughts, and practice thinking to solve a problem. In the process of implementing the study, students will engender different solutions. This process will help students practice independent thinking, and how to protect their scientific viewpoint. Besides, the implementation and protection of a scientific research project will enhance such skills for students as expressing ideas, presenting a problem, presentation skills, and confident demeanor before a scientific committee. This is also an interesting and valuable experience that any student should have in their lifetime.

In addition, on the basis of knowledge and experience obtained through scientific research, students may have many chances to improve their learning outcomes. Each student involved in

writing scientific articles, conference presentations or implementing research topics will get more experiences for his/her later career. This is also another way to help students achieve high academic performance.

To sum up, the scientific research among students not only bring tangible benefits for students such as strengthening knowledge, thinking; developing and training soft skills; opportunities to earn bonus scores from the faculty and the university; and establishing social relationships. This also helps enhance their self-discipline, self-study, which contributes to develop learners' competencies. Undoubtedly, scientific research activity is indispensable in educational universities nowadays. Therefore, it is necessary to educate scientific research for students as soon as they are at first year.

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