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THE INFLUENCE OF SCIENTIFIC SUPERVISION ON PROFESSIONAL SELF-DETERMINATION OF GRADUATE STUDENTS

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Abstract

The article deals with the problem of professional self-determination of graduate students. The axiological character of self-determination is proved. It is proved that scientific supervision influences the professional self-determination of graduate students. The article argues that one of the goals of postgraduate studies is professional self-determination of graduate students as scientists and university professors. The results of the survey, which show that the majority of graduate students associate their professional activities with a scientific career or work in the professional industry, are presented. The article examines the factors of effective scientific supervision that have a positive effect on the professional self-determination of graduate students. It is shown that only an authoritative style of scientific supervision can contribute to the formation of a positive professional self-determination of graduate students. The role of positive reinforcement, scientific schools and independent practical activity, as factors depending on scientific supervision, which directly affect the professional self-determination of graduate students, is shown.

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Keywords: Scientific supervision, scientific schools, styles of scientific supervision, motivation of graduate students, professional self-determination, postgraduate study



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1. Introduction

One of the most serious problems of modern Russian higher education is the problem of the quality of training new scientific and pedagogical personnel. This is due not only to the country's growing need for young scientists, but also to the rejuvenation of the entire higher education system. As one knows, the average age of the teaching staff of universities is on average about 55 years (Pugach, 2017). The departure of young scientists from universities not only disrupts the continuity in the transfer of experience, the development of scientific schools, but also deprives the very system of reproduction.

Modern postgraduate study is the main form of training personnel for work in the field of higher education and science. At the same time, traditionally, the effectiveness of postgraduate studies is measured by the grades of the defenses of theses by graduates, and not by their desire to continue a teaching career.

Of course, work on a Ph.D. thesis is an important component of a graduate student's training. At the same time, both the desire of a young scientist to solve a scientific problem and defend their solution in the scientific community, and the desire to communicate their own achievements to future generations to ensure the continuity of the development of science and education are equally important.

The increase in the number of graduate students who do not strive to defend their theses and continue their scientific or pedagogical career increases the urgency of the problem of increasing the effectiveness of graduate school.

Scientific leadership is considered an important factor of influence on the effectiveness of training scientific and pedagogical personnel. However, the issue of the influence of effective scientific supervision on the professional self-determination of graduate students and their motivation for scientific activity is practically touched upon in modern research. Studying the motivation of graduate students, their needs and vision of themselves in future professional activities would allow supervisors to more effectively choose styles and strategies of behavior to achieve higher results of research activities.

2. Problem Statement

It is known that for the successful implementation of professional activity and overcoming many obstacles on the path of professional development, a specialist needs to be confident in the correctness of their own professional choice. Such confidence and the desire of a graduate student to continue their scientific and pedagogical career directly depends on their professional self-determination.

The study reveals the problem of determining effective scientific supervision and identifying its impact on the professional self-determination of graduate students.

The very concept of the professional self-determination of a graduate student is currently not sufficiently disclosed in modern scientific literature. Also, the role of scientific leadership in this process and a number of factors contributing to its effectiveness remain poorly understood.

3. Research Questions

The study provides answers to the following questions:

- 3.1. What is meant by the professional self-determination of graduate students?
- 3.2. What is the role of the supervisor in the professional self-determination of graduate students?
- 3.3. What characteristics of scientific leadership have the greatest impact on the self-determination of graduate students and why?

4. Purpose of the Study

The aim of the study was to determine the factors that have a positive effect on the formation of professional self-determination of graduate students.

5. Research Methods

The following methods were used in the research: analysis of scientific pedagogical literature on the research problem; observation and questioning.

The study involved graduate students studying at Russian universities ($N = 70$).

6. Findings

6.1. Definition of professional self-determination of graduate students

Currently, there is no unified approach to defining the content of professional self-determination. In modern psychological science, self-determination of a person is understood as a conscious act of identifying and asserting one's own position in problem situations. A self-determined personality is a subject who has realized what they want, what they can, what they are (personal and physical properties), and what the team expects from them (Syromyatnikov, 2013).

Self-determination is both a result and a process associated with the development of personality. As a result, it represents an awareness of one's own values at a given specific moment in time, by a specific person. In accordance with our previous work (Ershteyn, 2008), values are characterized not only by what they are responsible for, but also by the strength of the significance of a particular phenomenon.

Self-determination includes building an image of oneself as a bearer of certain value attitudes, and self-change of one's motives, desires and needs under the influence of achieving the desired image of oneself.

Note that realizing that self-determination is both a static and a dynamic characteristic of a person, within the framework of this study, we will consider it as a certain achieved result.

Professional self-determination can be viewed as an activity to resolve problem situations, as well as one of the criteria for the success of professional development, which consists in the adequacy of professional choice or as a psychological mechanism for the professional development of a personality, ensuring the resolution of intrapersonal contradictions and a transition to a higher level of professional self-awareness (Syromyatnikov, 2013). It arises in response to situations of professional choice from existing (assumed) alternatives.

In the course of professional self-determination, a specialist accepts the values of a certain professional field and correlates the requirements of the profession with their own professional competencies.

In turn, most foreign researchers associate professional self-determination with human needs, focusing on the fact that self-determination allows you to realize a person's needs in the most optimal way, and in itself is also one of the basic needs of an individual (Deci et al., 2017; Gagne et al., 2000; Rigby & Ryan, 2018; Sheldon et al., 2017; Vansteenkiste et al., 2018).

Some authors emphasize that professional self-determination is one of the leading motives of a person's professional activity (Gagne et al., 2000; Vansteenkiste et al., 2009).

The problems of professional self-determination of graduate students in general are not considered in the sources. Certain aspects of self-determination of graduate students are considered in relation to research activities. Thus, Alekseeva and Donina (2019) consider self-determination to research activity as the ability of a researcher to take an active (subjective) position in relation to their research, to plan it with an understanding of the result, both in scientific terms and in terms of their personal development. The authors note the influence of scientific supervision on the scientific self-determination of graduate students. Foreign sources discuss the issues of motivation and self-determination (Deci et al., 2017; Manganelli et al., 2018; Olafsen et al., 2017; Rezvani et al., 2017). At the same time, in the studies, the problem of professional self-determination of graduate students was hardly considered.

What is professional self-determination from the point of view of the above approach? So, professional self-determination is an awareness of the importance of one's own profession and the functions of a specific person, which they must implement in the process of fulfilling their professional duties.

Postgraduate studies in Russia are aimed at training not only scientific, but also pedagogical personnel, therefore the training of highly qualified personnel should be aimed at training professional scientists and teachers of higher educational institutions. Thus, the professional self-determination of a graduate student is a graduate student's awareness of the importance of the profession of a scientist and/or university teacher. It is obvious that the professional self-determination of postgraduate students is manifested in the desire not only to successfully complete their postgraduate studies and defend their Ph.D. thesis, but also to become a professional teacher.

To identify the professional self-determination of future scientists and teachers, a survey of postgraduate students enrolled in Russian universities was conducted. In total, 70 postgraduates in various professional fields, from natural sciences to socio-humanitarian, were interviewed. Almost all of them indicated that one of the meanings of studying in graduate school is to become a good specialist, however, a "good specialist" in which area was not indicated by anyone. It should be noted that none of the respondents indicated the continuation of their teaching career as the goal of their postgraduate studies.

Considering that the supervisors of the surveyed graduate students are teachers at universities, the following assumption was formulated. Postgraduate students perceive the supervisor as a mentor in their professional activities. Therefore, in the course of professional determination, they will focus on the professional qualities that are significant for themselves.

Thus, in the course of the survey, the main features of a scientific supervisor from the point of view of graduate students were identified. The results of the study show that graduate students note the characteristics of a supervisor's competency as a scientist, completely ignoring his qualities as a teacher.

Answers to the questions "Why do you need a supervisor?", "What benefits does a supervisor bring?" allowed to conclude that graduate students do not consider their supervisors as mentor-teachers.

The results of the study allowed us to conclude that the professional self-determination of postgraduate students is associated to a greater extent with the career of a scientist or qualified specialist in the professional field, rather than with pedagogical activity.

6.2. The influence of scientific supervision styles on the professional self-determination of graduate students

In domestic studies, relatively little attention is paid to the problem of scientific supervision. At the same time, the main aspects of scientific leadership were considered in our previous works, in particular, the issues of the effectiveness of scientific supervision, the styles of the scientific supervisor, the main functions and the importance of scientific supervision (Alekseeva & Donina, 2019).

In foreign studies, the problem of scientific supervision has been considered in a large number of works (Chatterjee-Padmanabhan & Rossetto, 2017; Lee, 2018; Paré, 2017; Wang & Byram, 2019). Researchers are interested in various aspects of scientific leadership. Thus, Lee and Kamler (2008), in particular, consider the problems of the influence of the supervisor on the quality of postgraduate students' publications.

Models of interaction between supervisors and graduate students are discussed in works by Löfström and Pyhältö (2019), Burnett (1999) and Vansteenkiste et al. (2009). The issues of ethics of communication of subjects of scientific supervision are discussed in the study by Löfström and Pyhältö (2019). Hyland and Tse (2004) discuss the importance of scientific supervision in the preparation of dissertation research and the main functions of a scientific advisor. Problems of interaction styles between academic supervisors and graduate students are considered in (Chiang, 2009; Löfström & Pyhältö, 2019; Olmos-López & Sunderland, 2016; Parker-Jenkins, 2018; Vansteenkiste et al., 2009).

The abundance of works devoted to the issues of scientific supervision, which confirms the influence of the style of scientific supervision on many aspects of research activities, as well as on various aspects of the formation of the personality of the future scientist, suggests that the scientific supervisor can have a significant impact on the choice of the pedagogical career of a graduate student.

In the study, we proceeded from the assumption that values are formed as a result of long-term positive reinforcement. Therefore, we considered interaction with a scientific advisor as an opportunity for positive reinforcement of the types of professional activities that are significant for graduate students, on the one hand, and also as an opportunity for graduate students to realize their importance for themselves.

Speaking about the effectiveness of the research supervisor, we note that it consists not only in approaching the goal set by the graduate student, but also in their professional self-determination.

Despite the fact that during the study it was revealed that the surveyed graduate students do not associate their future activities with teaching at the university, and do not consider their supervisor as a

mentor in the field of pedagogical activity, this does not mean that such an influence does not exist, but rather indicates tendencies in the interaction of scientific advisers and graduate students, characterized by the concentration of this interaction on the defense of the thesis research, but not on what will happen after the defense.

Obviously, supervisors have the opportunity to influence the professional self-determination of their students by choosing the style of interaction with graduate students – authoritative, authoritarian or liberal style.

Interaction in a liberal style is characterized by the fact that the supervisor does not actually lead and does not influence the formation of professional self-determination. In this situation, the professional self-determination of a graduate student becomes a spontaneous, uncontrollable factor.

Interaction in an authoritarian style is possible, but highly undesirable, an authoritarian supervisor suppresses their student, sometimes this can form the professional self-determination of only poorly motivated graduate students. On the other hand, authoritarian leaders often make mature individuals want to act in spite of it, which rather not so much influences professional self-determination as contributes to its manifestation.

Authoritative influence is considered the most favorable. It is this leadership style that allows a young researcher to feel comfortable in the profession of a scientist and teacher. Academic supervisors who are inclined to use an authoritative style can conduct conversations about the specifics of the professions of a scientist and teacher, tell stories from their own practice, and demonstrate by their own example the importance of both components for him. Such methods used by a reputable academic advisor should have a positive effect on self-determination.

The second factor influencing the professional self-determination of a postgraduate student is the willingness and ability of scientific leaders to involve their students in the activities of scientific schools. It is in the process of interacting with other members of scientific schools that the personality broadens the idea of the chosen professional field, is formed as a scientist and teacher. Involving graduate students in the activities of their schools, scientific supervisors provide them with the necessary positive reinforcement, as a result of which the professional self-determination of future scientists is formed. It is no coincidence that many famous scientists remember the various seminars that their scientific supervisor organized for representatives of their scientific school.

An important factor in the professional self-determination of a graduate student should be called the readiness of scientific supervisors to give their students the opportunity to practice independently, as scientists and teachers. It depends on the supervisors what kind of real practice their students will receive in the course of their postgraduate studies. Therefore, without the practice of free work both as a scientist and as a teacher, a graduate student will not be able to conduct a self-assessment of the competencies necessary for these types of activities.

Positive reinforcement is a significant factor. Thus, non-constructive criticism of a supervisor in the absence of pedagogical support will negatively affect the professional self-determination of a graduate student. In most cases, such actions of the supervisor cause rejection of the chosen professions. A persistently criticized or ignored graduate student is highly likely to fail to complete graduate school.

An equally important factor should be called a clear statement of tasks by the scientific supervisor and assistance in understanding the purpose of their implementation. Vaguely set tasks can lead to different understandings of the result that needs to be achieved by a scientific supervisor and a graduate student. Misunderstanding can lead to a negative attitude towards the activity itself and negatively affect professional self-determination.

7. Conclusion

The study made it possible to draw several important conclusions.

Professional self-determination can be viewed as a process or as a result of the formation of the value of this particular profession in this particular person. In reality, professional self-determination is a process, as it changes under the influence of internal and external factors. A number of factors can positively or negatively affect professional self-determination. In the first case, abhorrence is formed for the professions of a teacher and scientist, in the second case, on the contrary, love is formed for them.

The professional self-determination of graduate students is a value phenomenon and shows an awareness of the level of importance of the profession of a teacher and scientist for a particular graduate student.

Interaction with a supervisor is one of the key factors in the formation of the professional self-determination of a graduate student.

The main factors of effective scientific leadership influencing the professional self-determination of graduate students are considered: authoritative style of communication; involvement of graduate students in the activities of scientific schools; providing opportunities for practical activities in selected professions; positive reinforcement of the activities of graduate students; and a clear goal setting.

As a result of the study, it can be argued that effective scientific supervision contributes to the professional self-determination of graduate students. And the supervisor can have a decisive influence on the processes of the subsequent choice of their own profession by graduate students and on the attitude towards the performance of their professional duties.

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