MSC 2020
International Scientific and Practical Conference «MAN. SOCIETY. COMMUNICATION»

THE ROLE OF SCIENTIFIC LEADERSHIP IN BLENDED LEARNING IN POSTGRADUATE EDUCATION

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Abstract

Currently, the issues of updating the model of training scientific and pedagogical personnel in post-graduate school are regularly raised. This is due to the fact that the development of science and the self-reproduction of scientific personnel in post-graduate school are important conditions for maintaining the country's competitiveness. An important condition for the successful work of a post-graduate student on a dissertation is scientific leadership. Considering the change in the status of Russian post-graduate studies in recent years, the decrease in the statistics of successful defenses makes it necessary to identify the motivation of post-graduate students to study, which should be taken into account when organizing training for highly qualified personnel. The emergence and widespread introduction of distance educational technologies leaves an imprint on the interaction of a postgraduate student with a scientific advisor. This study is aimed at exploring the change in the phenomenon of scientific leadership of a post-graduate student during the transition from traditional face-to-face format to online education. The purpose of the article is to conduct an empirical study of the satisfaction of post-graduate students with scientific leadership and identify expectations from interaction with a scientific advisor in an online format. The article reveals the issues of motivating post-graduate students to study in post-graduate school and their expectations from the supervisor when working in person and online. The authors reveal similar and distinctive features, the most important for post-graduate students in the implementation of scientific leadership.

1. Introduction

Currently, post-graduate school is becoming a strategically significant level of education. This is primarily due to the need to increase scientific developments, preserve and reproduce scientific and pedagogical personnel for the economic development of the country and the preservation of competitive advantages in the political arena.

Already at the undergraduate and graduate level, universities try to identify the most interested students in order to attract their research activities. Later, the most talented of them continue their scientific work in post-graduate school.

A number of negative trends are noted in modern studies devoted to the quality of post-graduate training in Russia and the study of the organization of post-graduate education abroad. Among them: a decrease in the number of successful defenses of dissertations, as in our country, relative to the same indicator in other countries, a decrease in the percentage of post-graduate students who defended their dissertations on time, a change in the motivation for admission to post-graduate school from direct to indirect motivation (deferral from the army, a place in a hostel, etc.).

These and other trends determine the attention of scientists to various issues of organizing research activities. Among the issues studied, scholars name the relevance of involving students in research activities and its conditions, including the cases of some universities (Stromov & Sysoyev, 2017). The study (Ivanova et al., 2017) shows a positive correlation between a student's course of study and their learning motivation. However, the motivation for research activities, apparently, has a slightly different pattern.

Despite the attitude towards the personal and professional development of a post-graduate student as a continuous self-determined process (Avdeeva et al., 2019), a number of studies point out the need for dialogue both with other post-graduate students, teachers (Ruane, 2016) and with the scientific advisor. The importance of the advisor, as well as the factors affecting the success of his/her work with a post-graduate student, is indicated in the works of Ershtein (2013). The author notes that "the formation of a scientific alliance between an advisor and a supervised applicant is a separate problem" (p. 44). The socio-psychological aspects of scientific leadership are also revealed in the works of Gribankova (2011).

Globalization trends in the world community also affect changes in education (Sheraizina et al., 2016). Modern global trends in education lead to the transition from traditional face-to-face education to a blended format. So, Porter et al. (2014) write that the widespread introduction of blended learning in educational organizations and the increased availability of courses has led to an increase in the quality of teaching, its flexibility. The scientific literature provides compelling evidence from opinion polls about the popularity of online communities in social networks among today's youth (Pevzner et al., 2018). Kapanen et al. (2013) based on a survey of 110 dissertation students, write that blended learning programs are currently attracting students from different countries in the field of technical sciences (65%), economic sciences (25%) and other areas (10%). A number of researchers have noted the rich application of blended learning in post-graduate school (Vonog & Prokhorova, 2015). It is believed that student motivation is essential to promote blended learning programs in post-graduate school (Catalan et al., 2018).

2. Problem Statement

Currently, quite a lot of research is devoted to the study of motivation or the motivational component of student research activities. This component includes the presence in a person of incentive forces that determine the craving for research activity (Bordovskaia et al., 2017). However, there are insufficient data on motivation for research activities and postgraduate studies.

Blended learning is called one of the trends in the educational services market (Global Smart Healthcare Market…, 2018). In recent years, along with face-to-face meetings with an advisor, online interaction has become popular. That is why it is important to resolve the question of whether there is a difference between online and offline communication between post-graduate students and their advisor, as well as identifying personal and professional characteristics that can leave an imprint on the productivity of joint work on a dissertation. No less interesting is the identification of students' expectations from working with their advisor online and offline.

3. Research Questions

3.1. What is the motivation of post-graduate students to study in post-graduate school?

3.2. What traits should a scientific advisor have for successful work with a post-graduate student?

3.3. What features and expectations of post-graduate students from online and offline interaction with the thesis advisor should be taken into account in the process of organizing research activities and preparing a dissertation?

4. Purpose of the Study

The purpose of this study was to identify the motivation of students in post-graduate school and their expectations of the supervisor and interaction with him/her in face-to-face and distance format.

The objectives of the study were:

- determine the motivational-target component of training highly qualified personnel in post-graduate school;
- draw up a portrait of the scientific advisor on the basis of a survey of post-graduate students;
- define the expectations of students and identify the necessary traits of a supervisor, which, in their opinion, are important in face-to-face and distance interaction.

5. Research Methods

To solve the set tasks, a survey of postgraduate students enrolled in various full-time and part-time postgraduate courses was conducted. To identify the motivation of graduate students to study in graduate school, we used a modified questionnaire by A.A. Rean and V.A. Yakunin "Methodology for Diagnosing Educational Motivation of Students" (as cited in Ilyin, 2008).

To identify the expectations of post-graduate students from training, satisfaction from working with a supervisor face-to-face and online, a questionnaire was developed containing open and closed questions. Also, students were asked questions aimed at identifying the characteristics of a supervisor, which are

important for working with post-graduate students online and offline. For these questions, multiple choice of up to five parameters was allowed. The sample of post-graduate students was 69 people from various universities in Russia, studying both full-time and part-time.

6. Findings

6.1. Motivation of post-graduate students to study in post-graduate school

The results of a survey of post-graduate students (N = 69) on the motivation of post-graduate students to study in post-graduate school showed that the majority of post-graduate students hope to defend a Ph.D. thesis, the vast majority enter graduate school on the basis of professional motives - defending a Ph.D. thesis (72.5%) and become a highly qualified specialist (71%). Less popular are educational and cognitive motives - acquiring new knowledge in their field of science (65.2%), as well as motives for self-realization (53.6%). Communicative motives are important for post-graduate students. Thus, 40.6% of post-graduate students would like to go to post-graduate school in order to discuss scientific achievements with interesting people; 30.4% - to establish business contacts. Motives of prestige are chosen by about a third of post-graduate students. Of these, 27.1% want to achieve the respect of teachers and to achieve the respect of parents and others, 7.2% would like to become an example for graduate and undergraduate students. For 18.8% of students it is important to obtain a postgraduate diploma.

Slightly less important for post-graduate students are material motives - the opportunity to receive grants for their own research (14.5%) and a scholarship (13%). It is noteworthy that the attractiveness of the deferral from the army was noted by only 8.7% of the respondents.

6.2. Expectations of post-graduate students from their scientific advisor

Based on the analysis of the results, it was revealed that it is important for post-graduate students that the scientific advisor acquaints them with the requirements for candidate dissertations (46.4%), informs students about new achievements in the scientific field (37.7%). A number of post-graduate students believe that an advisor is necessary to increase their motivation (37.7%) and self-determination of a post-graduate student for scientific activity (31.9%).

When asked what kind of help post-graduate students expect from their advisor, the following answers were received: 65.2% and 62.3% of respondents expect assistance in drawing up a research plan and proofreading the text of the dissertation work, respectively. 42% of post-graduate students hope for the help of a scientific advisor in publishing research results in peer-reviewed journals, and 36.2% believe that a scientific advisor can help them find scientific literature on the topic of research. 27.5% of postgrads expect help in planning experimental work and conducting the experiment (5.8%).

The results of a survey of post-graduate students (N = 69) on satisfaction with the interaction with their advisor are presented in Figure 01.

As can be seen in Figure 01, the majority of post-graduate students are satisfied with the work with their advisor: 62.3% of students are completely satisfied, and 21,7% of students believe that they are rather satisfied with the process and the result of the work. 16% of students rate their work with the advisor at the present time rather as unsatisfactory.
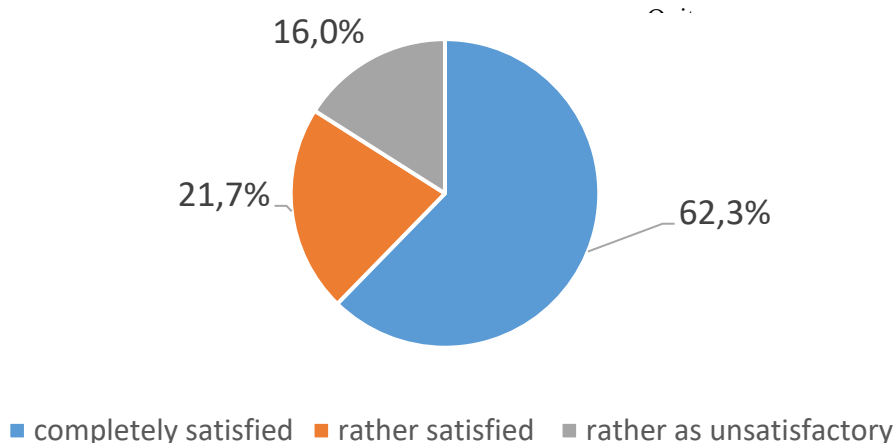
Figure 1. Satisfaction of post-graduate students from interaction with their scientific advisor

In the course of the study, it was revealed that most of the post-graduate students meet with their advisor quite regularly. Of these, 45.3% of postgrads themselves ask their advisor about a meeting, and 29.7% prefer meetings initiated by their advisor. A quarter of the respondents rarely meet with their advisor. But if 14.1% of students have an advisor who is very busy and cannot afford frequent consultations, then 10.9% of postgrads themselves rarely turn to their advisor for consultation. The survey results are presented in Figure 02.
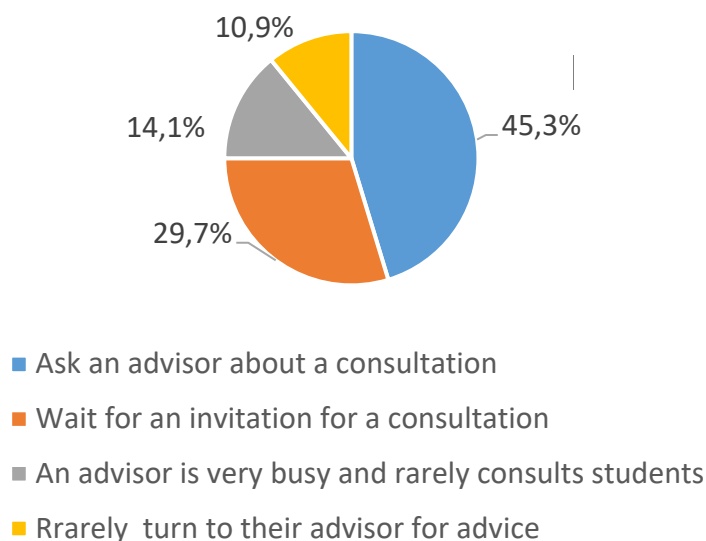

Figure 2. Regularity of meetings of post-graduate students with their scientific advisor

Based on the results of summarizing the answers of post-graduate students to the question "What are the main qualities of your thesis advisor", a portrait of an advisor was compiled. Professional competence and attentive attitude towards students became the main quality for post-graduate students. These qualities are named as priorities, respectively, by 49.2% and 34.7% of post-graduate students.

Responsibility is chosen as the quality necessary for a scientific advisor by 11.6% of students. 8.7% of students note that an advisor needs to be purposeful. The pedantry, industriousness and communication skills of the scientific advisor are seen as priorities by 5.8% of post-graduate students. 4.3% of students believe that an advisor should be active, punctual, demanding, creative and original, interested in working with a post-graduate student, and also possessed managerial competencies. The responsibility and organization of the scientific advisor is noted by 2.7% of post-graduate students.

6.3. Features and expectations of post-graduate students from interacting with a scientific advisor online and offline

To identify the difference between the interaction of post-graduate students with their thesis advisor face-to-face and online, post-graduate students were asked the question "Is there a difference between working with your advisor offline and online?"

The research results show that for 64.1% of post-graduate students there is no significant difference between working with their advisor online and offline. Only 35.9% think there is a difference.

When working with a scientific advisor online, the efficiency of responses comes first (17.4%), and only then is competence and professionalism (15.9%). No less important are the clarity, concreteness of answers (11.6%) and the ability to set clear tasks (7.2%), as well as knowledge of computer technologies (7.2%). The responsibility of the advisor is chosen by 5.8% of students. The leader's interest in teamwork, willingness to cooperate and ability to motivate are considered important by 4.3% of post-graduate students. 2.9% of students add such qualities as the ability to organize work, exactingness, perseverance, responsiveness and attentiveness, as well as punctuality to the portrait of the thesis advisor working with graduate students remotely.

7. Conclusion

The study made it possible to clarify the ideas of post-graduate students about the functions and the portrait of their thesis advisor and identify a number of expectations from working with him/her. Obviously, these views also determine the expectations of help from the advisor. Post-graduate students believe that the advisor can help in structuring and proofreading the text of the work, the selection of scientific literature on the topic under study, and also plan the experimental part of the study. Among the important, according to the students, are such qualities of a leader as responsibility, pedantry, purposefulness, hard work and sociability. These qualities can characterize not only the scientific advisor, but also any highly qualified specialist. Revealing the difference in the qualities of an advisor, manifested in face-to-face and remote supervision of post-graduate students, showed that the majority of students do not see the difference between working with their advisor in person or remotely. Nevertheless, in online consultations, the promptness of the advisor's answers is somewhat more important than his/her competence. Also, when consulting post-graduate students online, it becomes important for an advisor to be computer-literate, set clear, concrete tasks for the students, and provide clear, concrete answers.

The results obtained, reflecting the modern vision of the scientific advisor by the pots-graduate students, will allow modern scientists to take them into account when working with post-graduate students,

and can also influence the adoption of administrative decisions on the appointment of scientific advisors to post-graduate students of the first year of study.

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