

RESEARCH PERSONNEL SETIFICATION: WHAT “DISSERGATE” HAS REVEALED

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At present, there is a discussion under way that centers around the ways of reorganizing the system for training highly qualified personnel, including the dissertation defense procedure. These issues have become the focus of increased attention as a result of recently revealed dissertation fraud cases which, in their turn, produced a tidal wave of further fraud exposures – the so-called Dissergate. The suggested innovations may affect all the aspects of the dissertation preparation process and the procedure of granting academic degrees. However, the opinions with regard to many of the parameters under discussion vary greatly – sometimes they are even mutually exclusive. At the same time, new measures must be planned with due regard for the level of human resources potential available to Russian science, while the issue of the changing role of dissertations is becoming increasingly important not only for Russia.

Over recent months, the academic community and Russia's government have been dealing with the issues of dishonesty in the preparation of dissertations, plagiarism, fraudulent study results published in scientific articles, and the general decline in dissertation quality. It appears that the onset of the discussion was in the autumn of 2012, when evidence was produced of the existence of a sort of an ‘assembly line’ for mass-scale production of fraudulent studies in the field of history at Moscow State Pedagogical University¹. This was followed by a wave of exposures of dissertation frauds known as *Dissergate*, which is not expected to subside as yet. It was bloggers on the Internet who were the first to push forward the campaign, and only then the government also reacted to the newly publicized facts. The development of a new strategy for the RF Supreme Attestation Commission (VAK) was launched, and the RF Ministry of Education and Science set up ten task forces in different fields of science for elaborating recommendations on the creation of dissertation councils, estimation of their members' qualification levels, and the determination of criteria for the organization applying for permissions to establish their own postgraduate departments and doctorate programs.

It should be noted that the focus of discussion has gradually shifted from the situation in field of social and humanities studies towards more general issues of academic certification – so, in fact, it moved in the right direction. Although the degree of deterioration of dissertation quality varies among different disciplines (it is believed that the natural sciences may boast of a lower overall percentage of faulty studies by comparison with the social sciences), but if one looks at the trends in number of citations from Russian authors, it becomes obvious that general worsening can be observed in all fields. Many scientists agree that dissertation quality has indeed become lower in many different fields of science². At the same time, social sciences represent a separate problem because, essentially, government officials and public figures prefer to gain academic degrees in economics, political science, sociology, or law – and not in natural sciences or, say, engineering. As shown by statistics, over the last decade the number of approved dissertations defended by applicants for the degree of Candidate of Sciences in the fields of natural sciences and technology slightly decreased (with the exception of chemistry, which displayed a growth of 15.5%), while an

1 I. Usov, P. Kotliar, N. Podorvaniuk. Dissertatsii poluchili novye stepeni zashchity [Dissertations now have higher levels of protection]. http://www.gazeta.ru/science/2013/04/03_a_5242549.shtml 3 April 2013.

2 Thus, Academician Alexei Khokhlov noted that an unspoken rule used to be applied in the natural sciences – that an applicant for a Doctor of Sciences degree had to publish 20 articles in leading scientific journals prior to defending his dissertation; but now this rule is no longer observed. Source: A. Gorbatova. *Sistemnost' i posledovatel'nost'*. [Systematicity and Consecitivity]. http://www.strf.ru/material.aspx?CatalogId=221&d_no=53547 11 April 2013.

Academician Sergey Lukianov speaks along the same lines about medical sciences: ‘... in medicine, many works do not answer the main requirement – they offer no new scientific knowledge. Rather, they demonstrate man's ability to apply some new medical techniques and then analyze the result’. Source: M. Muravyova. *Personal'naiia otvetstvennost'* [Personal responsibility]. http://www.strf.ru/material.aspx?CatalogId=221&d_no=53548 11 April 2013.

opposite trend was observed in some social sciences. Political sciences clearly stand apart from all the other fields, as the number of defended dissertations there doubled over the period of 2000–2011; economics comes second, with growth by nearly 1.5 times (*Table 1*).

Table 1

DISSERTATIONS DEFENDED BY APPLICANTS FOR THE DEGREE OF CANDIDATE OF SCIENCES AND APPROVED BY THE SUPREME ATTESTATION COMMISSION (VAK) (NUMBER)

Field of science	2011	2000	1995	2011/2000, %
Physics & Mathematics	1,233	1,354	1,059	91.0
Chemistry	767	664	1,056	115.5
Biology	1,242	1,333	811	93.2
Technology	3,930	4,781	2,563	82.2
History	628	829	144	81.2
Philosophy	486	550	301	88.3
Economics	3,893	2,709	870	143.7
Political science	410	202	56	203.0
Social science	342	421	144	81.2

Source: Indikatory nauki: 2013 [Science Indicators: 2013]. Statisticheskii sbornik [HSE Data Book]. M.: NRU HSE, 2013. P. 63.

On the average, the past decade saw only a slight decline in the number of approved dissertations defended by applicants for the degree of Candidate of Sciences (by 2.8% on 2000); its peak was observed in 2005–2007, when approximately 30,000 dissertations per annum were approved (at present this number is 22,000 – 23,000 per annum). But if we set these figures against the index for 1995 (*Table 1*), it becomes obvious that the number of defended dissertations has nearly doubled since then. However, it should be remembered that in 1995 this country was experiencing a rapid outflow of cadres from all fields of science, and so it would be erroneous to draw a comparison between the current situation with one of the most disastrous periods in the history of Russian science.

In mid-April of 2013, the draft of the *Concept of Modernization of the Certification System for Highly Qualified Research Personnel in the Russian Federation*¹ was prepared and offered for public discussion. It suggests many innovations and newly elaborated details. The following proposals deserve to be specifically pointed out.

The *first* newly introduced measure – the possibility of shifting the responsibility for dissertation quality from the VAK to relevant higher educational establishments and research institutes – at a first glance appears to be reasonable; moreover, it replicates the certification systems typical of the developed countries. However, it does not seem worthwhile to implement it immediately, because such a switchover may, most likely, result only in a further lowering of the quality level. The existing dissertation councils vary greatly in their degree of competence, and few of them can be regarded as truly competent. If the responsibility should lie with them, it will become more difficult to verify the results. One of the possible solutions to this problem could be the inclusion of foreign scientists in the dissertation councils – an option that is also being discussed. However, it is not an easy task to gather a sufficient number of foreign participants for achieving a critical mass in a situation when the dissertation defense procedure is conducted in the Russian language, and dissertations are also written in Russian.

The idea of testing this approach in a pilot mode (suggested by the RF Ministry of Education and Science) hardly makes any sense, either – because, most probably, the ‘strongest’ higher educational establishments will be selected to be the test sites. However, from this assumption it by no means follows that similar results can indeed be achieved at ‘weaker’ organizations.

At the same time, the accusations currently brought against the VAK are really well-justified because, until the issue of plagiarism and dissertation fraud was made public, the Supreme Attestation Commission had been quietly registering all defended dissertations – and not only those

1 <http://минобрнауки.рф/новости/3308>

submitted for a Candidate of Sciences degree (which the VAK only ‘approves’), but also doctoral dissertations which must be carefully considered and discussed by the VAK’s expert councils.

However, those who criticize the idea of transferring the responsibility for the quality level of dissertations from the VAK to research institutions and higher educational establishments believe that the core problem is not the way the VAK performs, but the corruptness of the academic community itself. Its chronic problem is the propensity for mutual cover-up. The proposal that not only the texts of dissertations, but also the names of the official opponents and the texts of their reports, as well as the estimations by the core organizations should be made public may urge all the related parties to value their reputation more and so abstain from doing favors for their friends and colleagues. It is indeed a question that often troubles honest scientists who are forced to make a choice between maintaining their reputation on the one hand, and fulfilling their moral duties or following personal preferences. At the same time, some arguments have been voiced against the principle of openness and transparency. Thus, President of the Russian Academy of Sciences Yuri Osipov thinks that *[the Academy] is, first of all, a professional community, and it cannot be open too much, by definition. There have already appeared the really mad suggestions that even the dissertations submitted for a Candidate of Sciences degree must be discussed on the Internet. But this is absurd!*¹

Interestingly, it has already been pointed out in the course of the current discussion that, if people are to be made personally responsible for their estimations, many scientists would prefer not to participate in the work of dissertation councils². If true, this fact is indicative of an extreme weakness of the academic and scientific community. The option suggested by the Rector of St. Petersburg State University – that a clause that scientists must participate in dissertation councils must be included in their contracts³ – seems to be a dead-end solution. Like any coercive measure based on administrative authority, it will probably be rather easily evaded on some equally formal grounds. Or it may result in other consequences – say, in an excessive bureaucratization of the dissertation defense process, when the council members will be afraid to approve an ‘insufficiently good’ scholarly work and be punished for it.

The *second* important proposal – to establish united councils (especially in the regions) in order to increase the level of objectivity and dissolve the existing dissertation councils at ‘weak’ research institutions and higher educational establishments. This may also conduce to the realization of other plans, such as allowing scientists to participate in only two councils (now they may simultaneously be members of four dissertation councils). On the whole, if the qualification requirements to the members of dissertation councils are to be made stricter, the actual number of such councils will inevitably drop. In fact, the first thing to do it to elaborate new requirements to the participants in dissertation councils, and this will later on give rise to other issues like the need to dissolve some councils, create instead united councils, and implement other organizational measures. A council should not be, however, dissolved for the simple reason that it considers only a small number of scholarly works every year.

And the *third* consideration: the discussion centers around the qualification requirements to the members of dissertation councils (based, in the main, on quantitative parameters) – such as the publication of no less than 5 articles over the past 5 years in the academic journals included in the VAK’s renewed list; or no less than 2 publications in academic journals with an impact factor (IF) of at least 0.3, and so on. The discussion largely addresses the quantitative criteria of academic publications – a factor that is relevant for the natural sciences, but is evidently insufficient – or even disorienting if used in the estimation of studies in the fields of social and humanities sciences, and also some technologies (classified, applied).

As so much attention is paid to the parameters of quantitative estimation, the VAK’s list of academic journals becomes an issue in its own right. At present the composition of that list is subject

1 See Yuri Osipov. *Uzhe i kandidatskie predlagaiut obsuzhdat’ v Internete [It is already suggested that dissertations submitted for a Candidate of Sciences degree must be discussed on the Internet]*. An interview with the President of the Russian Academy of Sciences // V. Gubarev. 6 May 2013. *Stoletie* [Sentennial] http://www.stoletie.ru/obschestvo/jurij_osipov_uzhe_i_kandidatskije_predlagajut_obsuzhdat_v_internete_879.htm

2 T. Vozovikova. *Na grani riskov. ‘Zakruchivanie gaek mozhет otpugnut’ uchenykh ot raboty v dissovetaekh* [On the verge of triggering a high risk warning. ‘The ‘tightening of the screws’ may scare scientists away from working in dissertation councils] // *Poisk* [Quest], No 17, 26 April 2013. <http://www.poisknews.ru/theme/science-politic/5925/>

3 Ibid.

to severe criticism, because it has been recently extended to include, among other things, some academically insignificant publications. At the same time, it evidently overlooks some acclaimed foreign academic journals.

Is there really a need for a list of academic journals approved by the *VAK*, and what must it be like? This issue has given rise to polarity in opinions – some suggest that the list of journals ought to be abolished altogether, while others argue in favor of introducing tough criteria for journal selection. Meanwhile, the possibility of a diversified approach is also being discussed: that the *VAK* list must no longer be mandatory for a number of highly reputed dissertation councils (at Moscow State University, national research universities and the Russian Academy of Sciences' research institutes), while all the other dissertation councils must comply with the requirement concerning publications in the journals put on the *VAK* list. It is also suggested that the quality standards applied to the scholarly publications to be submitted to the journals on the *VAK* list and to the peer reviews of these publications should be equally raised; and that, in order to eliminate the corruption component, the authors of scholarly publications must be charged no fee.

Thus, the proposals concerning the *VAK* list of academic journals can be grouped into two main categories. The first category relies on promoting the reputation of the academic community, which implies confidence in the expert estimations of the quality of scholarly publications made by the specialists charged with the task of considering dissertations. The second category relies on instruments of formalized control and quantitative estimation criteria – such as publications and the activity of the editorial boards of academic journals included in the *VAK* list. Strict formalization, in our opinion, is not conducive to better quality of certification. This is confirmed by the experience of foreign countries where priority is given to estimating the quality of publications related to dissertation themes.

Given the current situation in Russia, it appears worthwhile to elaborate several groups of estimation criteria, to be applied depending on the specific field of science. In the humanities and the social sciences it is indeed feasible to apply certain quantitative parameters; these may not necessarily be universal – instead, they can address the specific problems of a given field, for example the close character of an academic group.

Russia's *Dissergate* has put to the fore some long-standing problems that are well known to those who work in the field of science. However, it is illustrative that the situation in Russia with regard to research personnel is by no means unique. The downward trend in the level of dissertation quality and devaluation of academic degrees is a worldwide process that manifests itself in Europe and even in the USA.

In part this has happened due to the altering status of an academic degree. It used to be a common practice that somebody who defended a dissertation would stay in the field of science (being involved in either fundamental or applied studies). Nowadays an academic degree is an equivalent of a second diploma, a marker of a certain competence level of its bearer – something that can enable him or her claim a certain respectable position in one or other sphere of economic activity. Consequently, the number of those who leaves the field of science after defending a dissertation is on the rise. So, the problem faced by Russia has deeper roots and cannot be simply reduced to the issue of overlooked fraudulent dissertations, incompetent organization and insufficient control. The scale of values within the educational system and the attitudes to the purpose of defending a dissertation are undergoing a fundamental change. ●