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МОНІТОРИНГ ЯКОСТІ УПРАВЛІННЯ НАУКОВОЮ ДІЯЛЬНІСТЮ В СУЧАСНОМУ УКРАЇНСЬКОМУ УНІВЕРСИТЕТІ

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Метою дослідження є виявлення успішних практик контролю й недоліків стратегічного планування та організації наукової діяльності в сучасних українських університетах. У роботі проведено аналіз досвіду організації наукової діяльності в Полтавському національному педагогічному університеті імені В. Г. Короленка (тут і далі – ПНПУ) з подальшим співвіднесенням із практикою в інших навчальних закладах України. У дослідженні подано результати моніторингу думки 140 науково-педагогічних працівників ПНПУ, 31 завідувача кафедр інших українських університетів та 24 представників рад молодих учених країни щодо оцінки власної діяльності та важливості показників наукової роботи на основі опитувальника шкали Лайкерта. Методику описової статистики використано для: аналізу відповідей, збору даних, формулювання пропозицій стосовно підвищення ефективності наукової діяльності співробітників.

Автор аналізує канали зв'язку між адміністрацією (ректорат, заступники деканів з наукової роботи, завідувачі кафедр) та науково-педагогічним персоналом; визначає рівень комунікації для забезпечення усвідомлення існування градації оцінки. У статті трактовано погляди на принципи рейтингових набору балів, співвіднесення індивідуального та колективного внеску, нерозуміння рівнозначності усіх складових у формуванні рейтингу та змішування наукової й інших видів діяльності. Дослідження порушує питання міксу понять – щорічного наукового рейтингу з іміджем науковця, індексом Гірша. Відбувається тлумачення відмінностей між інструментом стимулювання наукової роботи та засобами активізації структурних підрозділів (міжнародного відділу, відділу аспірантури, адміністрації по забезпеченню безкоштовного стажування чи безоплатних наукометричних публікацій).

Надано зауваження щодо розробки системи матеріального стимулювання, яку б відчували окремі науково-педагогічні працівники та структурні підрозділи, що унеможливило б набір низьких (часто нульових) показників наукової роботи через розчарування ступенем оцінки власної роботи. Підняте питання того, що рейтинг повинен враховувати різноплановість спеціальностей закладу вищої освіти та унікальності роботи персоналу. Висловлено потребу надавати освітянам право обирати сферу, в якій вони матимуть змогу проявити себе та забезпечити відповідний рейтинг, що впливатиме на нарахування доплат (як приклад, рейтинги наукової, методичної, соціально-іміджевої роботи, коли наукова робота обраховується за результатами оприлюднення наукового продукту, методична – за наслідками виконання освітнього компоненту, впровадження методичних розробок і може формуватися з урахуванням оцінки студентами якості викладання, соціально-іміджева – формуватиметься за результатами профорієнтаційної, соціокультурної, іміджевої, виховної роботи освітянина).

Ключові слова: *менеджмент, наукова робота, якість освіти, оцінка наукової діяльності, заклади вищої освіти, Україна.*

Formulation of the problem. The organization, planning, control and regulation of scientific and pedagogical activities of research departments of universities is one of the key issues in the sphere of changes in higher education in Ukraine in the context of autonomy of universities. The topicality is emphasized by the functioning of the higher educational institutions of Ukraine in the conditions of constant legislative shifts, especially in the field of accreditation requirements. This pushes the study and analysis of the scientific activity monitoring and management system in order to identify current problems and prospects for further development.

Scientific and innovative activities in higher education institutions are an integral part of educational activities and are carried out in order to integrate scientific, educational and industrial activities in the higher education system. Carrying out scientific and scientific-technical activity by universities, academies, and institutes is obligatory according to the law. The central executive body in the field of education and science develops state target programs aimed at equipping higher education institutions with modern devices, scientific equipment, training laboratories, information and telecommunication networks, etc., taking into account their requests.

As the research by O. Kuzmin and L. Zhuk has shown, a properly chosen and clearly formulated strategy and promising areas of scientific activity of universities provide effective organization, implementation and control of all processes in the field of scientific activity. Their regulation allows universities to be competitive in the market of educational, scientific activities and technical services (Kuzmin, & Zhuk, 2017).

Analysis of recent research and publications. The works of I. Annenkova, N. Kuzmina and T. Lukina discuss the scientific sources of production, growing interest in monitoring problems of quality in education. N. Melnikova and M. Potashnyk dedicate their publications to the monitoring in activities in the circle of educators. O. Obmok studies the accounting of the results of the rating assessment of scientific and pedagogical activities of the employees. T. Vasylieva gave a broad description of the experience of evaluating the effectiveness of scientific and pedagogical workers in some Ukrainian universities. Scientific research in the field of monitoring of professional activities of scientific and pedagogical workers are highlighted in the works by I. Annenkova and T. Borova. However, nowadays there is a lack of publications devoted to the quality monitoring of scientific activity management in the modern Ukrainian university.

The **purpose** of the paper is to identify the successful control practices and shortcomings of strategic planning and organization of scientific activity on the example of Poltava V. G. Korolenko National Pedagogical University and other prominent educational institutions of Ukraine.

Presenting main material. The main tasks of the higher education institution in accordance with the Law «On Higher Education» (2016) are to conduct scientific activities by leading research and ensuring the creative activity of participants in the educational process, training highly qualified scientific staff and using the gained results in the educational process, providing an organic combination of educational, scientific and innovative activities for preservation and increase of moral, cultural, scientific values and achievements of the Ukrainian society.

Research at university departments in Ukraine is conducted with the involvement of researchers and students, doctoral students and graduate students. Scientific and pedagogical workers carry out their scientific activity in accordance with Article 53 of the Law with the specification: «Scientific, scientific and technical and innovative activities of scientific and pedagogical workers of higher education institutions are regulated by legislation on scientific and scientific and technical and innovative activities») (*Про вищу освіту,* 2014). It is included in the basic working time, which is 36 hours per week (the maximum training load per rate may not exceed 600 hours per school year). The norms of time of educational, methodical, scientific, organizational work are determined by the institution of higher education. The difference

between 1,548 hours of annual workload and time indicators in 600 hours of study workload is the time allotted for other types of work (which includes scientific work), provided by the individual work plan of the research and teaching staff. An important component of the individual work plan is a guidance of the scientific work of students done in their free time.

The head of the university exercises the control over the quality of work of pedagogical, scientific-pedagogical, scientific and other employees delegating authority to the vice-rector. The Academic Council of the institution of higher education evaluates the scientific and pedagogical activities of structural units in the end pf each semester. However, the real management is in the hands of the heads of the departments who not only ensure the organization of the educational process, the implementation of curricula and programs of academic disciplines, but also control the quality of methodological and scientific activities of teachers.

There are scientific societies of students, graduate students, doctoral students and young scientists in higher education institutions and their structural subdivisions, which are part of the system of public self-government of the respective higher education institutions. They also contribute to improving the quality of research by managing the activities.

The question of quality in scientific and research work in Ukraine is tightly connected to the process of the assigning academic titles of professor, associate professor and senior researcher. They can be given by the academic council of a higher education institution and approved by the attestation board of the central executive body in the field of education and science in accordance with the procedure established by the Cabinet of Ministers of Ukraine. This includes the range of qualification requirements discussed in our current research.

Scientific activity of the teaching staff is also an essential part of license conditions and standards of higher education. Licensing conditions for educational activities establish an exhaustive list of requirements that must be met by a higher education institution or research institution, and an exhaustive list of documents attached to the application for a license with the lists of research papers, internships and other scientific activities set as requirements for employees who have a certain educational or professional qualification.

At the top of the scientific work management in is a Ministry of Education and Science of Ukraine. The central executive body forms the Scientific and Methodological Council, which develops methodology and guidelines for the development of educational standards. This monitoring body unites the representatives of the state, employers and their associations, institutions of higher education of all forms of ownership, scientific institutions, the National Academy of Sciences of Ukraine, professional associations, and international experts.

The specific functions in the field are performed by the National Agency for Quality Assurance in Higher Education. It formulates requirements for the quality assurance system of higher education, develops regulations on the accreditation of educational programs and submits it for approval to the central executive body in the field of education and science. In our research, we look at the criteria developed by the executive body for assessing the quality of educational activities, including scientific achievements of the institutions of higher education in Ukraine, which can determine the ratings of institutions of higher education in the country.

Based on the generalization of N. Lyubchenko, we understand the management of research activities as a process of purposeful influence, the subjects of which through planning, organization, leadership, coordination and control ensure the implementation of research activities in universities (Любченко, 2013). A specific role is given today to the international academic mobility. The importance of international scientific cooperation and internship was determined in accordance with the recommendations provided by O. Zhabenko on the professional development of research and teaching staff in universities of Ukraine (Жабенко, 2018). This included monitoring of participation in programs of bilateral and multilateral interstate and interuniversity exchange of students and scientific-pedagogical workers; conducting joint research; organization of international conferences, symposia, congresses and other events; participation in international educational and scientific programs.

Hear we need to frame the process of measuring educators scientific load for each academic year. It is severely connected to the educational load of a lecturer. Traditionally the

working process in universities of Ukraine is planned taking into account the scientific and pedagogical potential, material and educational base of the institutions and modern information technologies. It focuses on the formation of an educated, harmoniously developed personality, capable of constant updating of scientific knowledge, professional mobility and rapid adaptation to dynamic processes in education and socio-cultural spheres, engineering and technology, labor management and organization, as well as on market economy.

The educational and scientific process is organized in accordance with the curriculum, which is developed for the entire period of study in accordance with the industry standards of the educational training program and approved by the rector. On the basis of the Curriculum, a so-called Working Curriculum is formed, which is drawn up by the deans of the faculties for the current academic year and specifies the forms of the educational process, types of training sessions and current and final control. The working curriculum reflects the amount of time provided for classroom and independent work of students. The working curriculum is approved by the Academic Council of the University and approved by the Rector. And it is that document on the basis of which the volume of educational load for the academic year is formed, which in due time is brought to the departments for distribution and consolidation of educational disciplines by teachers.

The main document, which reflects the educational, methodological, scientific, international, innovative, organizational and educational work of the university teacher during the academic year, is his individual plan. The individual work plan of the teacher is the main document of planning and reporting on various types of his activities during the academic year and is performed up in the prescribed form. The content of the individual work plan of the teacher should reflect the goals and objectives of the department, faculty, university as a whole, which are determined by the need to achieve qualitative and quantitative characteristics of quality assurance in education.

The individual work plan for the academic year is drawn up by the teacher under the guidance of the head of the department on the basis of distribution between research and teaching staff of the department and other types of work (methodical, scientific, organizational, educational), approved by the department and signed by the head of the department. The individual work plan of the head of the department is considered and approved by the dean of the faculty. Changes to the planned workload (or other types of work) of the teacher are made in the relevant section of his individual plan. To record the workload and performed methodological, scientific, educational and organizational work, each research and teaching staff summarizes its activities and fills in the appropriate columns of individual work basing on the amount of work actually performed no later than five days before the end of the semester. The planed part as a rule must correspond to the hours of the timesheet and confirmed by relevant documents.

At the end of the school year, the teacher at a meeting of the department reports on the actual implementation of the individual work plan. The decision to implement the individual plan is approved by the department meeting collectively, which is recorded in the minutes of the department meeting: “plan executed”, “plan executed incompletely”, “plan implementation adopted with comments”, correction of deficiencies and subsequent report. In case of non-fulfillment by the research and pedagogical employee of the total annual workload according to the results of the academic year, the remuneration of such employee is recalculated.

Scientific work is an integral part of the educational space and is carried out in order to integrate scientific, educational and industrial activities. Scientific work in the average university includes the implementation of planned research with reporting in the following forms:

– scientific and technical report in accordance with the approved scientific topics;

– execution and defense of dissertations (doctoral, candidate);

– writing and publishing textbooks and manuals;

– monograph, dictionary, reference book, scientific article, application for invention;

– review of monographs, dictionaries, reference books, dissertations, abstracts, scientific articles, research projects, thematic plans, etc.;

– publication of research results in authoritative professional scientific publications;

– other types of work for which clear time norms are established.

Rating of scientific and pedagogical workers is a quantitative indicator of the effectiveness of full-time scientific and pedagogical workers, departments, institutes (faculties) of the universities, which is formed according to the plan of the main activities. After analyzing the inner documentations of 24 educational institutions of Ukraine from each administrative center and region of the country we frame the basic principles of the rating process. In most cases the universities develop their regulation in accordance with the Laws of Ukraine «On Education» and «On Higher Education». Some establishments state the rating frames proposed by the separate regulations written by the departments of ensuring the quality of educational activities and the quality of higher education. It is also common to adopt such Regulations in accordance with the requirements of ISO 9001: 2015 «Quality management systems – Requirements».

Ratings of full-time research and teaching staff of the university are determined based on the position held. The following groups of educators of the university take part in the rating: the head of the departments, professors, docent, senior lecturer, teacher, and assistant. The rating of scientific and pedagogical workers is determined by the results of the academic year and takes into account the specifics of the main activities of scientific and pedagogical workers. The rating system usually has a hierarchical structure: the rating of the educational and scientific institute (faculty) is calculated on the basis of the rating of departments that are part of the educational and scientific institute (faculty), and the rating of departments is calculated on the basis of teachers. At the level of the department or educational-scientific institute (faculty), the first place in the category is awarded to the educator who received the highest total amount of points (further by decreasing the number of points). At the level of departments of educational and scientific institutes (faculties) and at the level of educational and scientific institutes (faculties) the first place is awarded to the department or educational and scientific institute (faculty), which received the highest total points (further decreasing number of points).

The purpose of ranking usually includes the creation of an information base for analysis and evaluation of the results of research and teaching staff, departments, institutes (faculties) of the universities; strengthening the interest of research and teaching staff in improving their professional skills, in the development of advanced pedagogical experience, in a creative approach to the teaching process. The rating provides for ensuring the objectivity of assessments of the quality of research and teaching staff due to the completeness and reliability of information. An indirect consequence of this form of control is the strengthening of the collective interest of teachers in improving the final results of graduate training. Currently, there is a constant debate on the development and use of common comprehensive criteria for evaluating and monitoring the level and effectiveness of research and teaching staff, departments, institutes (faculties) of universities.

We can note that the presence of such a document as a rating is called to lead to the intensification and stimulation of activities that guide and contribute to improving the rating of the universities and their development in general, creating conditions for professional growth of research and teaching staff. Assessment of the level of scientific activity helps to identify shortcomings and problematic issues in the activities of research and teaching staff, departments, institutes (faculties) of the educational institutions.

In the empirical part of the study, we analyzed the internal documentation of Poltava National Pedagogical University, which regulates research activities in the team of research and teaching staff in order to identify the strengths and weaknesses of the functioning model of management and monitoring. The effectiveness evaluation of the scientific research estimation was based on a tight analysis of the «Regulations on rating the performance of research and teaching staff and departments», which had been in force since 28.12.2016 until its change in 2020 after the gaining the results at the first stage of our study (*Положення про рейтингове оцінювання*, 2016). The rating itself, as in most of the universities of Ukraine, was established in order to increase the motivation of staff to high-performance, in order to ensure competitiveness

and healthy competition between educators, as well as to ensure the transparency and objectivity of the evaluation of scientific work of lecturers and the department.

We have identified the basic principles on which such an assessment is based. Among them:

– the presence of supporting documents;

– discussion of the rating results at the meeting of the department;

– differentiation according to positions, scientific degree, academic title (professors, associate professors, educator without scientific degree and academic title;

– individual and joint (group) points;

– total score (upon completion of works) is calculated by the formula = Criteria 1 + Criteria 2 + Criteria…

The rating score is adjusted to the size of the wage size according to the formula given in the document: Ultimate rating = Score (actual) / wage size.

The analysis revealed that the maximum scores fluctuated over a wide range of values:

Group scores – max. 1000 – were awarded for the inclusion of a scientific publication in the scientometric databases Scopus and / or Web of Science and for involvement in the scientific research program financed from the state budget. The maximum individual score of 400 points was given for the defense of a doctoral dissertation or for the creation and equipment of a scientific laboratory, center, museum. As well as 300 points could be received for preparation of students for participation in competitions, cultural and artistic projects on international stage, or for receiving the State Prize of Ukraine in the field of science and technology, as well as for obtaining the title of a full member of the National Academy of Pedagogical Sciences (NAPS).

The minimum scores of group ratings reached 50 points per article in the scientometric edition of Ukraine, and the minimum individual 5 points for 1 day of participation in scientific expeditions, scientific internships in the institutions of the National Academy of Sciences or NAPS of Ukraine; 2 points were granted for 1 day of scientific internship in the Free Economic Zone outside Poltava, or for supervising a student's speech at a scientific conference in Poltava; and the smallest score of 1 point was awarded for 1 day of scientific internship in Poltava Universities; or for reviewing 1 physical printed sheet (24 pages) abstracts of dissertations or scientific articles.

The dynamics of the rating over the years was quite representative, where it was possible to trace the effectiveness gaps of such a methodology in forming a list of leaders and stimulating or, conversely, the development of apathy in research work among educators.

Score/year	2016	2017	2018	2019
Max	**15185**	**16072**	**31655**	**17512**
Average	**2307**	**2031**	**2999**	**2623**
Min	192	165	369,5	273

Table 1. The rating of Doctors of Scientists and / or professors

A precise analysis shows that the was a stable part of the staff ignoring any kind of scientific activities after gaining a degree/ it was especially seen in 2016 and 2018:

Score/year	2016	2017	2018	2019
Max	**4600**	**6920**	**5840**	**3793**
Average	**660**	**837**	**739**	**676**
Min	**0**	**17**	**0**	**25**

Table 2. The rating of PhDs and / or associate professors

The same pattern is mentioned in the circle of lecturers without scientific degree. They also completed no project or wrote no article in the same years.

Score/year	2016	2017	2018	2019
Max	**2640**	**2391**	**1660**	**2125**
Average	**404**	**492**	**360**	**436**
Min	**0**	**22,7**	**0**	**28**

Table 3. The rating of educators without a degree

In connection with this situation and on the basis of previously obtained data, we initiated a change in the annex to the «Regulations on the rating of performance of research and teaching staff and departments» in 2020. The scheme we developed was still not perfect, but it was designed to solve a number of pressing issues. Thus, it introduced an individual score to each project participant, a member of the organizing committee, and did not work with the concept of collectivity. It was found that part-time employees report only at the department at the main place of work, and external part-time employees did not submit reports in order to avoid duplication and increase of ratings at the expense of the same persons. We also introduced the criterion of equality of all types of scientific work (100-point scale of the set of points). And project activities now included not only points for implementation, but also for the preparation of projects without receiving a positive response. In addition, the measurement of research internship was conducted not in the number of days spent, but in the number of credits covered; the scale of points for editorial work was greatly expanded. Our proposals took into account the practice of distant work due to COVID-19 while measuring the point of participation in conferences. Further, we stated that not only the victory was appreciated, but also the supervision of preparation of the student's research, project, work and speech was evaluated. There was no dependence of scientific work rating on the size of the wage any more.

In order to evaluate the quality of such a system after a year of a functioning, we monitored the opinion of academic staff through a survey using Likert type scale questionnaire with the help of anonymous survey via Google Forms «Assessment of the importance of the criteria of scientific work of the employees in PNPU» (1-27, March 2021). Overall, 140 respondents took part in the first part of the survey, which is 31.6% of the educators of PNPU, respectively, thus the statistical error at this stage is ±6.86%.

The second stage of the research included a study of the opinion of heads of departments, heads of departments of the University of Ukraine during interaction in group work at the Central Institute of Postgraduate Education of the State Institution of Higher Education «University of Education Management» National Academy of Pedagogical Sciences of Ukraine (12 April – 29 October, 2021). It helped to evaluate the experience and point of view of 31 representative of Ukrainian educational institutions from all over the country. The third stage comprised the examination of the opinion inside the circle of young researchers that took part during the first session of the Second Forum of Young Scientists' Councils of Ukraine in the city of Ivano-Frankivsk during 3-5 August, 2021 uniting 24 representatives from all regions of the state. The specific questionnaire was designed for this research. During the evaluation the educators had to cover 10 blocks of questions. The studying instrument contained a section of various factors (age, gender, academic position, scientific degree); 68 statements with agreement measured on a five-point Likert scale (Very Important (5), Important (4), Moderately Important (3), Slightly Important (2), Not Important (1); and open questions about the usefulness of the rating, its methodology; its adaptation to distance training; recommendations and plans for its modification.

The evaluation part covered different spheres of activities united in 8 blocks according to the division stated by the academic council of PNPU:

– obtaining a positive response to scientific and organizational-scientific activities,

– implementation of research work,

– implementation of actions for the acquisition and implementation of intellectual property rights,

– training of scientific personnel,
– publications,
– management of research work of students,
– recognition of research work,
– other areas of research.

Each block united various inner number of activities usually performed by Ukrainian lecturers along with their study load. A brief analysis revealed the following data that helps in understanding of the system of values of modern educator when it goes about his scientific activity.

Judging gender representation, women dominated among the respondents making 60,5%, (n=118). Gender itself component had no statistically significant influence on the evaluation of the scientific activities. We divided respondents into 6 age groups showing the meaning of the scientific work to the representatives of different generations (20-29 years old (12,8%, n=25), 30-35 years old (25,1%, n=49), 36-40 years old (33,3%, n=65), 41-50 years old (9,2%, n=18), 51-60 years old (14,4%, n=28) and after 60 (5,2%, n=10). Such distribution was carried out in accordance with the Law «On Scientific and Scientific-Technical Activity», where a young scientist is a scientist under 35 years of age who has a higher education not lower than the second (master's) level, or a scientist under 40 years of age who has a scientific doctoral degree. The last measuring point was defined according to the reaching retirement age of men (62 years) and women (60 years) under the article 26 of the Law on Pension Insurance of Ukraine. Colleagues without scientific degree made up 5,2%, n=10, holding PhD title – 77,4%, n=151, along with 17,4% (n=34) Doctors of Sciences. Academic positions of the respondents were as follows: 35,9% of heads of the departments (n=70), 9,2% of assistants (n=18), 1,5% of lecturers (n=3), 10,8% of senior lecturers (n=21), 30,8% associate professors (n=60) and 11,8% of professors (n=23).

In this research we identified the most important indicators named as qualitative without the division in age of position groups because the main scope here was to identify the further vector of reforms. Thus, the survey found as the most valued activities:

– 80% – dissertation defense;
– 69,3% – obtaining academic titles (associate professor, professor);
– 67,9% – inclusion of the scientific publication of the university in the scientometric databases Scopus and / or Web of Science;
– 65% – inclusion of the scientific publication of the university in the list of professional publications of group B (in Ukraine, scientific periodicals that are included in international scientometric databases other than Scopus and / or Web of Science); and personal monograph;
– 62,9% – supervision of preparation and publication of student's article; as well as supervision of scientific work of the student for All-Ukrainian Scientific research works competition;
– 57,1% – obtaining the title of a member (corresponding member) of the Academy of Sciences / NAPS; along with preparation of higher education students for participation in the Olympiad, cultural and artistic projects;
– 54,3% – being an author of a collective monograph; a textbook for universities (stamped by the Academic Council); an article in other scientometric publications or professional publications of category B; and supervision of student's speech at a scientific conference;
– 53% – conducting international research or educational grant;
– 51,4% – writing an article in scientometric editions of Scopus or Web of Science databases; or supervision of preparation and publication of student theses in the collection of scientific works or in the conference materials;
– 50,7% – writing the textbook for universities with the stamp of the Academic Council;
– 50% – scientific guidance of the graduate student; or carrying out joint events with foreign institutions.

In contrast, the least important indicators were named as follows:

– 15,7% – sale of licenses for the use of object of intellectual property and obtaining state awards;

– 15% – concluding agreements on technology transfer;

– 13,6% – receiving awards of various levels;

– 12,9% – participation in the activities of the commissions of the Academic Council of the university (scientific and of academic integrity);

– 12,1% – obtaining a certificate of copyright registration for a work registered at the University; obtaining honorary titles;

– 10% – acting as a Deputy Dean for Research.

Conclusions and recommendations. The data obtained in the course of our study allowed us to draw the following conclusions about the functioning of the system of evaluation of educators' work and their encouragement, which can be considered as suggestions for improvement and introduced into the production process of institutions:

1. There is a weak communication channel between the administration (rectorate, deputy deans for scientific work, heads of departments) and scientific and pedagogical staff, resulting in a lack of understanding of the purpose of the rating, its methodology and content. The low level of communication did not ensure awareness of the gradation of assessment, so often asked not to compare the achievements of associate professors and professors, not guided by the lack of a collective score in the evaluation of project activities. Colleagues ask to cancel the paper version of the reports on the condition of creating a presentation of the scientific work of the departments, not correlating the desire to reduce their bureaucratic burden and the requirement of the Ministry of Education of Ukraine to submit such data to the university report in two versions.

This leads to confusion in understanding the principle of scoring, the ratio of individual and collective contribution, misunderstanding of the equivalence of all components in the formation of the rating and mixing of scientific and other activities. Colleagues confuse the annual scientific rating with the image of the scientist, talking about the need for comparative assessment in the ratings of not only annual but also three-year and life dynamics of publications or asking to take into account the Hirsch index when determining the annual rating. In the process of scoring, they see a tool not to stimulate their own work, but a means of activating structural units (international department, graduate school, administration to provide free internships or free scientometric publications).

It was often proposed to include as scientific work other kinds of activities (translation into foreign languages of diploma supplements, creating inner university documentation, lecturing at university preparation courses, forming the proposals of educational certificate programs, participation in the admissions committees, acting as a guarantor of the educational program or expert of National Agency for Quality Assurance in Higher Education).

2. Lack of comments in 56,43% of respondents indicates, on the one hand, a significant degree of satisfaction with the current process of rating formation in their institutions, on the other hand shows a lack of initiative or poor awareness of the evaluation process.

3. The rating remains a 'game for the sake of the game'. In terms of numbers and places in the ranking, there is no real material incentive that would be felt by each lecturer and each structural unit. Evidence of this is the duration of low (often zero) indicators of scientific work of individuals in PNPU for five years (2016 – 2021), which in the reluctance to score points control not so much laziness as out of 'principled positions and frustration in the evaluation of their own work.

4. The practice of transforming the rating into a 'socialist competition' of individual departments and the 'Stakhanov movement' of scientific and pedagogical workers has become commonplace, the result of which is not the quality of the product and the image of the scientist, but only in accrual of points to the ordinary educator and the head. Understanding the specifics of the manager's work, the great share of which consists of representative, rule-making, mediation and other responsibilities, one should move away from the Soviet canon of

‘omniscient and omnipotent leader’ without requiring leaders to rank first in scientific rankings, which may affect management. There is a need to add to the ranking of professors, associate professors and educator without a degree or academic title the category ‘Management of the university and heads of departments.

5. The rating should take into account the diversity of specialties of the institutions and the uniqueness of the educators. We believe that it is necessary to allow educators to choose the field in which they will be able to express themselves and provide an appropriate rating that will affect the calculation of surcharges (as an example, ratings of scientific, methodological, socio-image work exist in some Universities of Ukraine as equal parts of the consolidated rating (Kennett, 2014).

Thus, scientific work is calculated based on the results of publication of the scientific product, methodical – on the results of the educational component, implementation of methodological developments and can be formed taking into account the assessment of students’ quality of teaching, socio-image will be formed

6. The rating of the scientific work must be consistent with paragraphs of the collective agreements regulating the establishing to scientific and pedagogical, scientific and pedagogical workers surcharges for a scientific degree in the sizes of 15 and 25 percent for the degree of Doctor of Philosophy (PhD) and Doctor of Science respectively, as well as 25 and 33 percent of the official salary for the academic title of associate professor and professor accordingly.

7. The rating should be one of the mechanisms for assessing the quality of the educator during his tenure, not a regular paper report, and directly affect the prospect of contract renewal. It must be taken into account when ranking surcharges to the official salary in order to perform the stimulus function announced in the position.

8. The rating should be a checkpoint for the annual performance of contracts concluded with the lecturer. The rating system must be used to conduct an annual summary of the activities of research and teaching staff to make personnel decisions by the management of departments, institutes (faculties), and the University and provide recommendations for improvement of research and teaching staff. Recommended conclusions on the indicator of individual final rating could be as following: deserves promotion, needs to improve performance in relevant areas, deserves encouragement. Thus, the concept of a minimum rating score for a professor, associate professor, senior lecturer, assistant in accordance with the requirements of the contract should be introduced (say, for an associate professor within 90 points – annually from points for 1 article in category B, 1 speech at a scientific symposium with the publication of materials, and guidance of 1 scientific publication of a student).

9. The rating in terms of content should be alive and improved in accordance with changes in the stormy sea of Ukrainian legislation. Such ratings in Ukrainian universities already take into account the norms of the laws «On scientific and scientific-technical activity», «On higher education», are based on the Charter of the Universities, on the local regulations on the organization of scientific, scientific and technical activity in the universities. However, they should focus on the requirements of the Cabinet of Ministers Resolution «On approval of licensing conditions for educational activities» (already taking into account the innovations of 2021), the Order of the Ministry of Education and Science «On approval of the Regulations on accreditation of educational programs, which are used to train applicants for higher education», Order of the Ministry of Education and Science of September 17, 2018 №1008 «Some issues of state certification of scientific institutions» and focus on trends in international practice (Kennett, 2014).

10. It is appropriate to exclude from the ranking of activities that are not scientific work, and are consequences or prerequisites for it and should be the product of daily activities of specialists of individual departments, such as receiving awards and prizes. It is also important to standardize scores due to real and phantom participation of graduates in conference programs.

11. Expansion of types of scientific work conducted can include the management and the organization of a scientific workshop on increase of theoretical preparation of pedagogical workers of establishments of general and out-of-school education.

12. One of the options for verification of materials may be the creation of an electronic questionnaires and with the attachment of supporting documents, electronic publications, certificates, conference programs, which will prevent fictitious scoring and inflating personal ratings.

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QUALITY MONITORING OF SCIENTIFIC ACTIVITY MANAGEMENT IN THE MODERN UKRAINIAN UNIVERSITY

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The research aims to identify successful control practices and shortcomings of strategic planning and organization of scientific activity in modern-day Ukrainian universities. The paper shows the analysis of the scientific activity managing experience at Poltava V. G. Korolenko National Pedagogical University (here and after PNPU) with further correlation with the practice in other educational institution of Ukraine. The study presents the results of monitoring the opinion of 140 scientific and pedagogical staff members of PNPU, 31 heads of departments of other Ukrainian universities and 24 representatives of young scientist councils of the country regarding the assessment of their own activities and the importance of indicators of scientific work based on a Likert type scale questionnaire. The descriptive statistics methodology was used to analyze the answers to gather dater to formulate the proposals for improving the efficiency of scientific activity of the staff.

The author analyzes the communication channels between the administration (rector's office, deputy deans for scientific work, department heads) and scientific and pedagogical staff; determining the level of communication to ensure awareness of the creation of grading. The article presents views on the principles of rating scoring, the correlation of individual and collective contribution, the unreasonable equivalence of all components in rating formation, and the mixing of scientific and other types of activity. The study raises the question of a mixture of concepts – the annual scientific rating with the image of a scientist, the Hirsch index. There is an interpretation of the differences between the tool for stimulating scientific work and the help to activate structural units (the international department, the department of postgraduate studies, the administration for providing free internships or free scientometric publications).

Remarks are given regarding the development of a system of material incentives that would be felt by individual scientific and pedagogical workers and structural units, which would make it impossible for the time duration of the set of low (often zero) indicators of scientific work due to disappointment with the degree of evaluation of one's own work. The question was raised that the rating should take into account the diversity of specialties of the higher education institution and the uniqueness of the work of the staff. The need to give educators the right to choose a field in which they will be able to express themselves and to ensure an appropriate rating that will affect the calculation of additional fees is expressed (as an example, ratings of scientific, methodical, social image work; scientific work is calculated based on the results of the publication of a scientific product, methodical – by the consequences of the implementation of the educational component, the introduction of methodological developments and can be formed taking into account the assessment of the quality of teaching by students, the social image will be formed based on the results of career guidance, socio-cultural, image, educational work of the educator).

Keywords: *management, scientific work, quality of education, assessment of scientific activity, higher educational institutions, Ukraine.*

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