TRANSLATION PAPER

M.V. LOMONOSOV AS THE FOUNDER OF HIGHER RUSSIAN EDUCATION

RUSSIAN TO ENGLISH

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The development of higher education in Russia was initiated by Peter the Great, who signed a decree in 1724 on the opening of the Academy of Sciences in St. Petersburg. According to the idea of the tsar-reformer, it was to be engaged in both scientific and educational work. For this purpose, a gymnasium and a university were opened at the Academy.By the time M.V. Lomonosov arrived at the Academy, the university and the gymnasium were dragging out a miserable existence. The scientist bitterly noted that "the university regulations have not been composed, although many professorial works and time have been allocated."Analyzing the state of affairs at the Academic University and striving to provide the country with young Russian scientists, M.V. Lomonosov came up with the idea of creating a university in Moscow. In the history of our country, Moscow, which initiated the unification of the people into a single state, organized its struggle for liberation from foreign oppression, became the largest Russian city in the mid-18th century, located in the most populated part of the country with a developed culture. The ancient capital retained its significance as the center of all of Russia, had factories and handicraft workshops. Hundreds of workers worked at the Moscow Cloth Yard. Moscow was a large trade center, connected with individual parts of Russia by numerous river and land routes [3].

In Moscow, there were educational institutions whose doors were open to ordinary people. Thus, the Spassky schools were replenished with commoners and for a long time served as the main source of applicants for the academic university in St. Petersburg.As a graduate of the Slavic-Greek-Latin Academy, M.V. Lomonosov was well aware of the conditions for the creation of the first Russian university in Moscow. This was reflected in the "report" that was submitted to the Senate, undoubtedly based on the data received from M.V. Lomonosov [3]. The "report" indicated the following advantages of Moscow for the establishment of a university in it: "1) a large number of nobles and commoners living in Moscow, 2) the position of the capital in the center of the Russian state, 3) cheap means of maintenance, 4) an abundance of relatives and acquaintances among students and pupils, 5) a large number of home tutors maintained by landowners in Moscow" [5, pp. 284-294]. The establishment of a university was considered in the "report" as one of the necessary measures for the preparation of educated people not only from the nobility, but also from the raznochintsy. The development of Lomonosov's program for higher education was facilitated by the scientist's personal experience in managing an academic university and a gymnasium.

This program was distinguished by its organizational clarity, scientific nature of the educational content, encouragement of independent study, high demands on the teaching staff, and concern for improving the material and living conditions of teachers and students. A characteristic feature of the program was what we would now call the democratization of higher education. This was primarily evident in the selection of students. In his work "The Most Humble Opinion on the Correction of the St. Petersburg Academy of Sciences. 1755" M.V. Lomonosov showed that "the production and reproduction of learned people in Russia" was hampered by the prohibition of studying "at public expense" for children of tradesmen and peasants, "as if forty altyns were such a great and heavy sum for the treasury that it was a pity to lose it on acquiring a learned natural Russian, and it would be better to write it out! It would be enough to exclude the children of serfs." "The growth of sciences", in his opinion, is hampered by the small number of schoolchildren and students. M.V. Lomonosov correctly believed that there should be several times more students in a gymnasium than in a university: "Not every schoolchild can become a student, just as not every student can become a professor." In other countries, M.V. Lomonosov noted, there are thousands of students in universities. In the Russian university, "almost no one comes", since it lacks status, a program, a clear organizational structure, and privileges. He was outraged by the situation in which many gifted people from the lower classes, "subject to a capitation tax", could not study in Russia. M.V. Lomonosov noted that "other European states are filled with scholars of all ranks, but not a single person is prohibited from studying at universities, no matter who he is; at a university, the more a student has studied, the more honorable he is, and there is no need for that."

The scientist was a supporter of introducing the ideas of nationality and classlessness into university education. Nationality was expressed in the fact that teaching was conducted primarily in Russian. In addition, a significant group of Russian professors was formed who fought for advanced science, national education, and democratic pedagogy. Moscow University was not a privileged educational institution. The entire first group of students consisted of commoners.The democracy and nationality of M.V. Lomonosov were also manifested in the solution of such an issue as the publication of the Academy's "commentaries" and the printing of all dissertations in Russian translation. Before M.V. Lomonosov issued a special document to the Chancellery on February 3, 1761, stating that all scientific articles and their "abbreviations" were published in Latin. This limited the access of people seeking education to science. According to M.V. Lomonosov, the author himself should write summaries of scientific works. The scientist considered regularity and speed of appearance to be an important condition for the effectiveness of such issues. Such prompt publication would allow students to become more familiar with the works of professors,and “Russian society will not be left without benefit.”

Before M. V. Lomonosov, students were taught in German and Latin. "Lomonosov, Krasheninnikov and other leading Russian scientists understood perfectly well that without switching to the Russian language there was no point in thinking about any kind of widespread dissemination of education, its accessibility and democratization. Lomonosov achieved that at Moscow University Russian professors gave lectures only in Russian" [1, p. 111] Democratization of higher education implied, according to M. V. Lomonosov, changes in the management of the university: "The reins of the university government should be handed over to the vice-rector, who is elected annually from among the professors and who, for his special work, should be honored with a more significant salary increase than usual" [4, vol. 10, p. 123]. The university must be autonomous, free from police quartering, fees, and have its own court. The leading principle of Lomonosov's program was the principle of scientific character in higher education. M.V. Lomonosov set the development of science and popularization of scientific knowledge through the press, lectures, debates, work of libraries, etc. as the main task for universities [5, p. 139]. In his opinion, universities should be the leading scientific and educational centers in the country, which would have a decisive influence on the development of science and the spread of education in Russia. Therefore, when developing the plan for the creation of Moscow University, he determined not only its structure, the list of faculties, but also the number of professors, the disciplines that should be studied [4, v. 10, p. 513]. M.V. Lomonosov revealed such an important issue as the content of education in higher education. At the medical faculty he considered it necessary to have three professors (chemistry, "natural" history, anatomy), at the philosophy faculty - six (philosophy, physics, rhetoric, poetry, history of antiquities and criticism).
He proposed to implement legal education in a new way, introduced the teaching of Russian law. The basis for other faculties was the philosophy faculty. Only after graduating from it, one could become a student of another faculty.

In 1759, in the "Plan of regulations, project of the staff" of the academic university, M.V. Lomonosov proposed to open eleven departments instead of five according to the staff of 1747. For Moscow University in 1754, he planned twelve departments. The main difference of the 1759 plan was the division of the university into three faculties and students into three classes (courses). The training program developed by the scientist was somewhat original. It included Russian law, chemistry, botany, anatomy, and oriental languages.

In 1764, M.V. Lomonosov published “Assumptions on the structure and charter of the St. Petersburg Academy.” In § 8 of this document, he deepened his own understanding of the issues of the content of higher education: “To preserve human health and to care for it, it is necessary to establish a medical faculty.In order to increase public welfare and to create various benefits for life, it is necessary to organize a faculty of philosophy. At the faculty of law there should be lectures: 1) historical, to familiarize students with the law of nations, which in other places is in vain attributed to the purview of the faculty of philosophy; 2) on practical philosophy; 3) on politics; 4) on public and private law; 5) Russian law. At the faculty of medicine the following should be taught: 1) anatomy with physiology; 2) chemistry; 3) botany; 4) practical medicine. At the faculty of philosophy students should be taught: 1) both types of oratory; 2) a course in general philosophy should be given; 3) also mathematics; 4) experimental and dogmatic physics should be presented; 5) mechanics; 6) astronomy” [4, vol. 10, p. 123].

Thus, M.V. Lomonosov substantiated the content of higher education on the basis of the principles of scientificity and secularity. In this matter, he went further than Western European universities, revealing the progressive nature of the reforms he was carrying out: “Since in all universities the division into faculties is consistent with state institutions, then here, too, having rejected the theological circle of sciences in favor of the Holy Synod, which sciences are taught only in schools subordinate to it...”. In the “Plan of regulations, project of the staff” of the academic university from July 1759, M.V. Lomonosov once again returned to the issue of the secularity of education: “The clergy should not become attached to teachings that show physical truth for the benefit and enlightenment, and especially should not scold the sciences in sermons” [4, v. 9, p. 539].The main principle of the functioning of the faculty (''the main basis''), according to M. V. Lomonosov, should be the principle of public need for personnel. It consisted in the fact that when establishing the number of university departments, it was necessary to proceed not from the number of candidates currently available, suitable for filling professorial vacancies, but from the needs of the country. This is necessary so that ''the university plan will serve in all future years.'' In putting it forward, M. V. Lomonosov used the experience of organizing European universities, personal experience of studying in Freiberg and Marburg. A special component of Lomonosov's program was the issue of teaching staff. He strove to select scientists for teaching at the university who were capable of ''not only communicating to students what is known, but also researching and discovering what is still unknown''; considered it important to arrange scientific personnel in order to avoid an excess or lag in any area.“In order to encourage zeal for their studies in scientists, university professors should be selected and approved from among academics so that they could teach student youth...” [4, v. 10, p. 123]. M.V. Lomonosov was the first to propose a fundamentally new approach to recruiting scientific and pedagogical personnel for higher education, based on the principle of election. This made it possible to select truly worthy people to work at the university. In addition, it was M.V. Lomonosov who first put into practice the idea of combining teaching and research activities. This is his great merit as a scientist, teacher, and organizer of education. In his “Note on the Need to Transform the Academy of Sciences” (1758-1759), M.V. Lomonosov analyzed the requirements for the personality of a scientist and teacher of higher education. M. V. Lomonosov waged a constant struggle to increase the number of teachers of Russian origin. At the same time, “natural Russians” should have solid scientific training. In his opinion, only a citizen-patriot, deeply devoted to the Motherland, science, and education, can be a true teacher. Lomonosov pointed out,that in order to improve the affairs of the Academy and the University, it is impossible to give power over science to people of little learning, “foreigners”, in whom “some ill will towards learned Russians has been noticed”. He advocated for the fellowship of scientists both in scientific and teaching activities: “Freedom and union of sciences necessarily require mutual communication and unenviable permission in what someone knows to practice. A physicist is blind without mathematics, a withered hand without chemistry”. The work of M.V. Lomonosov on the arousal, satisfaction and depiction of passions in the “Brief Guide to Eloquence” [4, v. 7, pp. 89-378] is devoted to revealing the psychological and pedagogical mechanism of the methodology of lecturing. He developed invaluable pedagogical, psychological and methodological techniques for influencing students, achieving positive results in learning, and was one of the first to demonstrate the enormous potential of lectures as a method of teaching in higher education. He pointed out that all this could only be achieved by a “skilled rhetorician.” In essence, M.V. Lomonosov posed the problem of the pedagogical skill of a university teacher.

An important section of the Lomonosov program is its provisions on the methodological equipment of teaching. M.V. Lomonosov created works that served as the main teaching aids for several generations of students in physics, chemistry, rhetoric, history and other disciplines. When writing them, he was guided by such didactic principles as scientificity, accessibility and consistency. According to the scientist, the main source of knowledge is experience, so he attached special importance to practical and laboratory methods of teaching. Without belittling the role of verbal methods, M.V. Lomonosov considered search and research methods of teaching to be the most valuable, offering students to conduct their own research, learn to put forward a hypothesis and make theoretical generalizations. Caring about expanding the scientific and practical horizons of young people, he, for example, introduced a new way of studying chemistry, combining theoretical lectures with practical classes and experimental research. In his work “Introduction to True Physical Chemistry” he described the methodology for organizing such classes, indicating the sequence of actions of students: “1) determine the specific gravity of chemical bodies; 2) investigate the mutual adhesion of parts: a) by breaking, b) by squeezing, c) by grinding on a stone, d) for liquids - by counting drops; 3) describe the figures of crystallizing bodies; 4) process bodies by prolonged heating using Papin’s machine; 5) observe degrees of heat everywhere; 6) study bodies, especially metals, by prolonged rubbing. In a word, I propose to make an attempt to investigate everything that can be studied, weighed and determined by mathematical practice” [4, v. 2, pp. 573-577].Caring about expanding the scientific and practical horizons of young people, M.V. Lomonosov introduced them to the scientific foundations of production. In fact, he was the first to introduce elements of polytechnic education into teaching practice. Thus, in the “Order to Y. F. Schmidt on practical classes in geodesy with surveyors and students of the geographic department” dated June 5, 1762 [4, v. 9, pp. 255- 256], M. V. Lomonosov recommended introducing three practical classes on the subject per week, using different points in the city. Thanks to this, students developed practical skills and abilities, creativity, and research qualities. A variety of teaching methods were used in the educational work of the university. Most professors sought to give their students solid, thorough knowledge. Lectures were considered the main form of education. “Professorial lectures were divided into public and private. Every professor was obliged to give public lectures for all listeners every day (except Sunday and Saturday) for at least two hours. A large number of listeners (among whom were many women) flocked to these lectures. Professors gave lectures on textbooks approved by the university conference. Private courses were given for those who wished” [2, pp. 144-145]. In addition to lectures,teachers conducted practical classes in the anatomical theatre, directly on site, translations, essays, etc. were made. Debates occupied a special place. They were held on the last Saturday of the month. At the end of each semester, before the onset of "vacations", debates were held publicly in the presence of science lovers. "Debates had a positive effect on the development of students. They fostered activity, strong-willed qualities, and developed memory" [2, p. 144]. The broad scientific subject matter of the debates, the reading of public lectures by professors revealed the social nature of the university's activities.

M.V. Lomonosov provided for the sequence of studying sciences, the volume of educational material, proposed to teach students systematically, gradually complicating the material.M.V. Lomonosov correlated the content of higher education, teaching methods, and requirements for specialists in Russia with the existing pan-European experience and level, and sought to overcome the lag in the development of Russian higher education compared to Western Europe.M.V. Lomonosov's program also provided for work on the moral education of young people. He considered "extreme diligence" in science to be the main condition in education. Students busy with their studies should not follow any aspirations, "so that their zeal for learning suffers damage or a slight weakening." He advised them to cherish the "golden time of their youth," to persistently study science, and recommended developing patriotism in students, the need to live "for the benefit of the Fatherland."M. V. Lomonosov was a supporter of cultivating such qualities as modesty, politeness, respect for elders and each other, honesty. He especially emphasized hard work, diligence, persistence, and purposefulness. Lomonosov believed that the source of moral knowledge was students' communication with each other, with teachers, and protecting young people from people with moral flaws, from whom "polite actions cannot be learned." M.V. Lomonosov advocated an individual approach to students and paid great attention to talented young people. Thus, in the "Report to the Chancellery of the Academy of Sciences on the achievements of students studying poetry and chemistry under Lomonosov's supervision" dated February 5, 1753 [4, v. 9, pp. 442-443], he wrote that Nikolai Popovsky showed particular success in poetry, writing poems on given topics and mastering the art of translation. In connection with his academic success, he recommended distinguishing Popovsky "from the dormitory and from other students" with an apartment, rank, and salary. In August 1753, under the influence of M.V. Lomonosov, I.I. Shuvalov intervened in determining the fate of N. Popovsky, who was appointed assistant to the rector and head of the "upper Latin class", and in 1755 he was transferred to serve at Moscow University and became its professor.Implementing an individual approach to students, M.V. Lomonosov advised using incentive methods more often. Thus, he petitioned for a salary increase for I. Lepekhin, who later became a famous scientist and traveler, academician of the St. Petersburg Academy of Sciences. An extract from the journal of the Chancellery of the Academy of Sciences "on the awarding of some students with swords" has survived. In 1750, the president of the Academy K.G. At a public assembly, Razumovsky awarded swords to twelve students "for diligent study and good deeds." This became a tradition that students treasured. It was also supported by M.V. Lomonosov.

He also sought to use such a form of encouragement as continuing the education of some students abroad. On June 2, 1764, M.V. Lomonosov wrote a submission to the Chancellery of the Academy of Sciences on this issue, noting that twenty people had become students over the past four years. Seven of them had shown particular success, so M.V. Lomonosov recommended sending them abroad to continue their education. For these purposes, he proposed allocating an annual salary of three hundred rubles for each student, and increasing it to four hundred when moving. M.V. Lomonosov proved the need for "natural Russians" to study abroad and determined their number: no less than ten people over five years. Such a measure made it possible to prepare capable Russian scientists and refuse to invite foreign specialists. When developing the higher education program, M.V. Lomonosov especially emphasized the issue of creating a good material base for teaching. At his insistence, for example, a library, a physics laboratory, a chemistry laboratory, a mineralogical laboratory, etc. operated at Moscow University. They had good conditions for conducting scientific research and practical work for professors and students. M.V. Lomonosov advocated the creation of similar conditions at the academic university. The opening of a printing house at Moscow University was of great importance in public education. It made it possible, from 1755, to launch a huge work on publishing educational, scientific, philosophical, socio-political and fiction literature and to begin publishing the second newspaper in Russia, Moskovskiye Vedomosti. The printing house printed works by Shakespeare, Moliere, Goldoni, Cervantes, Jan Amos Komensky, Rousseau, Voltaire, Diderot, Schiller and others. Speeches and "words" of professors, which were delivered at ceremonial meetings in honor of official dates, were systematically and quickly published. Leading scientists managed to use them as a platform for promoting materialistic ideas. M.V. Lomonosov took great care to provide students with textbooks. On May 18, 1761, he prepared a resolution for the Chancellery of the Academy of Sciences on a new procedure for supplying students and high school students with textbooks [4, v. 9, pp. 579-580]. At the suggestion of S.K. Kotelnikov, it was allowed to issue and even order textbooks from abroad without contacting the Chancellery. Since May 1761, books from the warehouse began to be issued in a simplified manner. A dormitory was opened for students (and high school students), meals were organized, and they were provided with clothing. M.V. Lomonosov regularly visited the dormitory and observed the life, order, and attitude of the young people to study.

M.V. Lomonosov considered the clear organization of the entire matter to be an important condition for the development of higher education. He proposed that several scientists prepare the "Regulations of the Academy of Sciences." In his opinion, this document should have been developed by people who had received thorough scientific training through education both in Russia and in other countries, "natural Russians" or those given "to Russian citizenship forever," who were not participants in the "current spoiled academic state," and who did not have relatives in the academic service. In the "Regulations," M.V. Lomonosov presented the Academy, the university, and the gymnasium as a single whole. He was a supporter of continuity and the substantive unity of secondary and higher education and sought to create a system for training scientific personnel of Russian origin that would meet the socio-economic needs of the country. M.V. Lomonosov defended the idea of the obligatory inauguration of the university - a Western European tradition, without which the educational institution could not be recognized as a university, and the academic degrees awarded by it were devalued. He sought to give the university international authority, sought to ensure that graduates of the domestic university had a high status among foreign scientists. In his opinion, the inauguration should "inspire the university to success" and attract talented young people to study. Of great interest in Lomonosov's program of higher education is the list of university privileges. The scientist believed that the university should have the right to award academic degrees ("degrees"), and university positions should be equated with the ranks established by the "Table of Ranks". M.V. Lomonosov provided for the liberation of the Academy and the university from police interference. He advocated the creation of favorable conditions for scientific activity; proposed to legalize, following the example of other countries, holidays with the preservation of teachers' salaries; expressed the idea of allocating a "special estate" to the Academy with lands and estates, where academicians could spend their summer holidays, conduct physical observations, and organize experiments; proposed to improve the material living conditions of the families of scientists, widows and their children; cared about maintaining the health of all members of the Academy. At the same time, M.V. Lomonosov emphasized that all these "freedoms and advantages" are aimed at the benefit and flourishing of Russian science. As the founder of the higher education system in Russia, M.V. Lomonosov made an invaluable contribution to its theoretical and practical development. He has priority in considering issues of higher education pedagogy. He developed a special program in which he reflected pedagogical ideas for teaching and upbringing students, requirements for the personality of the teacher, and the material base of the university. M. V. Lomonosov himself was a model teacher, a great lecturer who mastered various methods of teaching and upbringing. This is his enduring significance as a teacher. An appeal to the ideas and experience of M. V.Lomonosov allows us to significantly enrich the understanding of our contemporaries about the state of higher education in the 18th century and to understand the traditions of Russian universities.

To see the original form of the text in Russian, please go to website below:

https://cyberleninka.ru/article/n/m-v-lomonosov-kak-osnovopolozhnik-vysshego-rossiyskogo-obrazovaniya