

Extension activities of Kazan Imperial University in the 19th century

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Abstract. Based primarily on archival documents, this article explores the development of additional education in Kazan province, Russia, in the 19th century. Its genesis is found in the varying order of Kazan Imperial University extension activities which take the form of foreign academic and scientific mobility; individual mentoring practice of recognised scholars; masters' advancement at Pedagogical Institute; creation of the Pedagogical Society in the framework of University Extension Movement. The historiography shows that in the course of its development additional education in Kazan Imperial University largely relied on the international experience and enthusiasm of its teaching staff.

Keywords: Additional education, Kazan Imperial University, University extension movement, historiography

1 Introduction

Nowadays, according to the Russian legislation, additional education is considered to be a constituent part of the Russian educational system. Therefore, the importance of historiography of education in Kazan province, Russia, in the late 19th and early 20th centuries is determined by the necessity to study the prerequisites for the formation of additional education system and to identify the underlying trends of this process. The subject of this study is extension activities of Kazan Imperial University in the context of additional education formation (the term *additional* is used to refer to education received in addition to formal instruction). Research methods cover the analysis of archival documents (Kazan Imperial University professors' speeches, reports and monographs, University Charter, the Pedagogical Society Charter, and Circular Letters of Ministry of Education etc.) and generalization of the data obtained. This made it possible to identify University widening activities as the foundation for additional education formation in the 19th and early 20th centuries.

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2 University widening activities

Additional education genesis is found in the varying order of Kazan Imperial University extension activities which take the form of foreign academic and scientific mobility of University professors and lecturers; individual mentoring practice of recognised scholars; masters' advancement at Pedagogical Institute; creation of the Pedagogical Society in the framework of University Extension Movement.

2.1 Academic and scientific mobility

In the course of its development additional education in Kazan Imperial University largely relied on the international experience and enthusiasm of the teaching staff. Practice of foreign academic trips for scientific and educational purposes vividly illustrates it.

Provision of all possible assistance to lifelong education of lecturers and professors was in the best tradition of the University. Thus, the University Council applied to the Minister of Education to provide opportunities for further improvement and introduction of supernumerary habilitation to masters and doctors of medicine who did not have a full-time chair. Paragraph 5 of the University Council Regulations states: "It is necessary that the faculties are provided with sufficient amounts of money for the maintenance of young people if they continue their education at the University, in Russia or abroad to advance in sciences and prepare for professorship" (p. 11).

2.1.1 *Evgeny F. Budde*

Foreign internships were provided on the results of final exams leading to Master's Degree or Doctor of Medicine and proven scientific research. Academic trips, during which post graduate students developed their professional and scientific potential, could take up to two years. Thus, in summer 1899, Russian Professor of Kazan University, slavist and linguist Evgeny F. Budde (1859-1931) studied old Czech and Polish manuscripts in the libraries and museums in Prague, Vienna, Krakow and Lviv for the purposes of historical dialectology of these languages. While studying the Czech dialects, he was accompanied by the Czech guide. In the Krakow Academy of Sciences Evgeny F. Budde familiarized with the case of publication the Historical Dictionary of Polish Language under the guidance of Professor Baudouin de Courtenay [2].

2.1.2 *Nikolai N. Bulich*

Academic trips abroad "were expected to expand the horizon of scientific knowledge, to elaborate the critical thinking, to familiarize with the level of philosophical sciences and humanities in the West" [3, p. 6]. Overseas internships were often an important step towards the formation of professors of Kazan University. For instance, the future professor of Russian literature Nikolai N. Bulich (1824-1889) went to Berlin in July 1857, where he spent almost two years of 'seething intellectual life'. On his return, he spent some time in St. Petersburg, where he made acquaintances with such prominent figures of science and culture of the time as F.I. Buslaev, the Korsch brothers, Y.K. Grot, I.I. Sreznevsky, I.S. Turgenev, A.V. Druzhinin. As Professor of Literature N.N. Bulich gave public lectures in Philosophy in favor of Sunday private schools in St. Petersburg and later in Kazan. His lectures titled 'Movement of European thought during the renaissance of sciences in Europe in the 15th and 16th centuries' received a flattering assessment in the newspapers of the time.

2.1.3 Nikolai A. Osokin

Another future Professor of Kazan University, Russian writer, medievalist, genealogist, State Councilor Nikolai A. Osokin (1843-1895) held an internship in Paris collecting material for writings about the First Inquisition. He later defended the Doctorate Degree in General History and in 1889 published three bulky volumes of university readings in medieval European history which “attracted flattering attention of scientists and quickly went on sale” (p. 10).

2.1.4 Alexander M. Butlerov

The world-renowned chemist, a native of Kazan, Alexander M. Butlerov (1828-1886) upon the receiving the Doctorate Degree in Chemistry and Physics and the title of Professor of Kazan University in 1857 was seconded abroad for scientific purposes. Although he ‘became a chemist not in foreign lands but in Kazan,’ his secondment abroad played a beneficial role in the creation and development of independent chemical school which later received his name. The Kazan University Council identified the main purpose of Butlerov’s trip as ‘studying the current state of chemistry in Europe and establishing personal acquaintances with famous chemists’. To achieve this goal, Council recommended: “(1) to visit famous chemical laboratories and learn the latest techniques commonly used in chemical works; (2) to attend famous chemists lectures in order to explore teaching methods; (3) not to miss an opportunity to establish personal relationships with scientists enjoying European glory and to get acquainted with different views on the current state of chemistry; (4) to purchase advanced chemical equipment for Kazan University lab and chemicals according to his own choice, and (5) on his return from abroad to submit a report to the University Council” (p. 15).

Having arrived to Germany two weeks before the end of the term, Butlerov managed to visit some laboratories and became acquainted with a number of scientists there, and then he went on the mission journey across Switzerland and Italy, and at the beginning of the winter term came to France. At that time, Paris represented an attractive destination for chemists where the most interesting lectures were held, numerous chemical laboratories worked, and the most famous chemists lived. This prompted Butlerov to dedicate most of his time to studying in Paris. In early May 1858 he went to the University of Heidelberg, which, in his opinion, ranked first in Germany in terms of the chemical science development. Butlerov’s report on the academic trip was published in the University Scientific Notes, Volume III, in 1859. The report provided detailed and interesting descriptions of universities, laboratories, the review of the progress and nature of teaching chemistry in Western Europe, and the impressions made by chemists’ lectures. On his return, A.M. Butlerov was immediately selected as an ordinary Professor of Kazan University, and shortly was appointed as Rector. After the first trip abroad, A.M. Butlerov went there two more times in 1861 and 1867.

2.1.5 Nikolai I. Ilminsky

The prevalence in the 19th century of such form of additional education as trips with scientific or educational purposes raises no doubt. We found a lot of evidence that not only university professors, but promising graduates from other higher education institutions were often seconded abroad. For instance, Nikolai I. Ilminsky (1822-1892), a known inspirer and creator of the educational system for foreigners in Kazan province, after graduation from the seminary and receiving bachelor's post in the class of the Arab-Turkish language, went to Damascus, Constantinople and Cairo for two and a half years “for collecting fundamental information about Mohammedan doctrine and for improvements in Arabic,

Turkish and Persian languages” (p. 21). His friend and colleague Alexey A. Bobrovnikov also spent a long time in the Kalmyk steppes studying the locals’ life and their national languages.

2.1.6 A.Y. Vasiliev

Although academic trips objectives varied, the ultimate goal was to update scientists’ professional activity in terms of their research or teaching methodology. In summer 1882, Associate Professor A.Y. Vasiliev visited Berlin and Leipzig Universities. He was interested in methods of teaching pure Mathematics in these educational institutions, and on his return home, he reported the results to the Physics and Mathematics Section of the Naturalists’ Society of Kazan Imperial University. The report testified that prominent scientists and mathematicians of Berlin University attracted students and young promising scientists from different universities of Europe. A.Y. Vasiliev was impressed by the Mathematics ‘seminary’ and the activities of the Students Society of Mathematics that existed in Berlin since 1861, and which contributed to “the awakening of love for self-study among students” [4, p. 9]. Only students of Berlin University and those young Doctors who completed the University courses belonged to this community. The Society members leaving Berlin were chosen as ‘alte Herren’, and they regularly received term reports on the Society’s activities and courses delivered at University of Berlin. The number of ‘alte Herren’ reached 300 people. Among them were also those who came from Russia. Society meetings took place weekly. Meeting agenda usually included reports delivered by the Society members, reviewing the content of the latest issues of scientific journals, and audience debates. The Students Society had 800-volume library and the catalog. A.Y. Vasiliev noted in his report that such societies existed in all universities and higher technical schools in Germany. Since 1883, it had been decided to publish all Student Societies reports in one book to make it possible to follow the events of teaching mathematics in universities and the scientific life of young mathematicians in Germany. On more than one occasion Russian Associate Professor A.Y. Vasiliev was surprised by the depth of special knowledge and proficiency of his German colleagues, and he used foreign experience to organise the activities of Students’ Mathematics Club in his alma mater [4].

2.2 Individual mentoring practice for Nikolai I. Lobachevsky

Alongside with academic and scientific mobility, individual classes may also be viewed as one of the most important forms of additional education. This kind of learning activity was quite common university practice.

2.2.1 Johann Ch. M. Bartels

The publications on the history of Kazan University mention an excellent mathematician Johann Christian Martin Bartels (1769-1836). His works feature prominently in the German mathematical literature ‘differing in rigor and clarity of presentation and evidence’ [5]. Prof. A. Vasiliev thought highly of this talented teacher who played a significant role in the scientific formation of Nikolai Ivanovich Lobachevsky (1792-1856). “Thanks Bartels, teaching of pure Mathematics at Kazan University was on a par with teaching at the top universities in Germany ... Bartels lectured in the History of Mathematics on his own notes, unfolding the majestic picture of human spirit” [5, p. 4].

N.I. Lobachevsky, having received on July 10th, 1811, Master's Degree for extraordinary achievements and talent in Mathematics and Physics, and for reasoning ‘the theory of elliptic motion of celestial bodies’, studied Mathematics with Bartels at home for four hours a week. Under the guidance of his talented teacher, he explored The

Disquisitiones Arithmeticae and the first volume of Laplace's celestial mechanics [5]. One of the results of these classes was the argument about the resolution of algebraic equations, represented by N. Lobachevsky in 1813.

2.2.2 Franz Ksavery Bronner

Another Lobachevsky's mentor was Franz Ksavery Bronner (1758-1850), Professor of Physics, first Director of Kazan University Pedagogical Institute, where young masters were supposed to enhance their knowledge. "Bronner's talents, who acted at one time or another as a Catholic monk, an illuminee, the writer of Idylls, a mechanic, a physicist, a historian..., who was carried away by Rousseau and the French Revolution ideas, and Immanuel Kant's Critique of Pure Reason – all these could not but bewitchingly influence his students. His broad philosophical education undoubtedly contributed to the intellectual development of Lobachevsky and his companions" (p. 7).

2.3 Additional education institutions

The creation of Pedagogical Institute at Kazan University was aimed at masters' advancement and can be viewed as a prototype of additional education institution; it was academic and tutorial in nature, and its successful activities were mainly determined by brightness of the University professors and lecturers. Among them were such outstanding scientists and teachers as a great mathematician and Latin scholar, a former Assistant Professor of the University of Gottingen Caspar Friedrich Renner (1692-1772), and a famous astronomer Joseph Johann von Littrow (1781-1840), a highly educated man who followed the Schelling's philosophy. Both of them were mentors of young Lobachevsky and his companions, many of whom later became well-known scientists.

As it was mentioned above, the development of additional education in Kazan Imperial University was largely dependent on teachers' enthusiasm and their personality traits. According to contemporaries, N.I. Lobachevsky was characterized by amazing versatility and interests in areas of knowledge rather distant from each other. Holding Rector's position, he simultaneously "studied architecture with tireless diligence in order to successfully observe the construction of university buildings" [6, p. 4].

Outside the University Lobachevsky did all he could to combat ignorance. Thus, he took an active part in the activities of the Kazan Imperial Economic Society established in 1940s. He was also engaged in organising classes in plotting, accounting and commercial science for merchants' children; besides this, he developed the educational institution project for children of the lower classes, and designed craft school for boys.

Lobachevsky strongly believed in University mission to disseminate knowledge as widely as possible. He always found time to read popular lectures titled 'Folk Physics'. It was no coincidence that in Russia, lectures arranged according to the university extension system (movement developed in Europe by the end of the 19th century), were first delivered in Kazan University on the initiative of Lobachevsky, who was inspired by the idea of nationwide education involving universities [6].

2.4 Pedagogical societies

At the turn of the 19th and 20th centuries pedagogical societies attached to universities started to appear. The basis of this new phenomenon was "the idea of cooperation between universities and all educational environment of the country, the idea of harmonious and balanced national education" [7, p. 3]. Initially, an important task assigned to the university was "supervision and tireless care of teaching and education in all district provinces, so that high schools, county and parish schools were provided with ... honest and knowledgeable

teachers and teaching aids” (p. 4). It was spelled out in the Charter of Russian universities 1804, Section 160. To fulfill this obligation, the School's Special Committee was established. Under Rector's chairmanship it included six ordinary professors elected by the University Board. The School's Committee exercised administrative management of the district colleges in all respects. However, over time the universities intervention in the case of middle and lower level education was considered ambiguous.

2.4.1 Kazan University Pedagogical Society as a tribute to university extension movement

The need to restore universities impact on the national education was reflected in the opening pedagogical societies. This trend was realized in Kazan University December 9, 1900, when the Pedagogical Society was created there. This was a tribute to the European trend of widening university education (University Extension), opportunities and challenges of which were actively discussed at international conferences on education, e.g. Congress on Higher Education in Paris in August 1900. Professors of Kazan University participated in such international forums and tried enthusiastically to bring fresh ideas into the university life of Kazan. In major cities of Europe and America people's universities began to appear, which were the real embodiment of the goals 'to distribute higher education'. Many educational leaders viewed their ideal model in the following way: "In its centre there is a small number of individuals, teachers and students devoted to research which requires high intellectual culture; then, a much larger number of young people studying the application of scientific technology to the arts and industry; and, finally, a huge number of curious people dedicated to education and University, which embodies science, literature and art" (p. 12).

All University faculties participated in the spread of university education – Law, Medicine, Physics and Mathematics, History and Philology. Last two faculties were given the main responsibility to train teachers for secondary schools of various types, including teachers' seminary graduates of which worked in folk schools. That is why great importance was given to the issues of upbringing the students. While many universities in Germany and France had special departments of Pedagogy and Experimental Psychology aimed at both receiving the scientific culture, and being prepared for teaching, Kazan University implemented this important idea through establishing the Pedagogical Society.

It was planned to train future teachers in accordance with all advances in this field. In this regard, the international experience of Psychology and Pedagogy departments was studied seriously and deeply. Along with experimental Pedagogy, well set in the western universities at the time, it was supposed to introduce the courses of historical orientation to familiarize future teachers with the history of pedagogical ideas embodied in the works of such prominent thinkers as the Comenius, Locke, Rousseau, Herbart, Pestalozzi, K.D. Ushinsky, L.N. Tolstoy. The need to introduce courses in History of Science was also specified. History of Mathematics was supposed 'to shed more light on the methods of presentation of elementary mathematics', as it was very important for future teachers of Mathematics.

In summer 1899, Russian newspapers published the Ministry of Education Circular addressed to trustees of school districts. It outlined numerous shortcomings of gymnasiums and non-classical secondary schools. Among them, "school alienation from family and its bureaucratic nature resulting in dry formalism and deadness in the living pedagogical practice" was declared as the most serious one [8, p. 9]. Shortcomings, identified in the circular, covered all school practice: the overall system, plans, curriculum, methods and techniques, and final results. The document evoked strong public response. Periodicals, boards of trustees of school districts, teacher and parent circles actively helped society "to understand the reasons for such joyless events when school produces half-educated persons

without any curiosity and desire to continue education and without the ability to work” (p. 12). Secondary schools meetings with participation of university professors worked hard in Moscow, St. Petersburg and Kazan, releasing proceedings on the matters of people’s school organisation.

The idea of creation of the Pedagogical Society was realised by professors of Kazan University immediately after visiting Paris Exhibition in 1900. Exhibition Congresses were dedicated to education in general, special education (commercial, technical, etc.), and the issues of teaching social sciences. It stated an overall interest in education, and the necessity to move to a higher level. Developing technique required education that would meet the life demands. The spread of education and “the ideals of humanity among lower and upper classes” were seen as a means to mitigate the class struggle. Congresses noted universities beneficial effects on the entire public education system (p. 15).

The University set the goal “to support students’ scientific aspirations laid at the university, and not to give them fade away in those provincial and county-level towns of little culture, where young teachers were in most cases sent to work” (p. 20). This can be seen as an attempt to provide opportunities for additional education for teachers. They covered: the activities of central pedagogical libraries in the university towns and school districts; summer courses for teachers of secondary schools to familiarise with the latest discoveries in the field of science or methodology; participation in Teachers’ Congresses. Kazan Pedagogical Society set the task of organising and directing these activities. Among its founders were professors of Kazan University A.I. Aleksandrov, A.S. Arkhangelsk, E.O. Budde, A.V. Vasilyev, L.O. Darkshevich, G.O. Dermidontov, N.P. Zagoskin, O.G. Mishchenko, D. Naguevsky, G.O. Shershenevich, and A.A. Shtukenberg. Family-Teacher Circle, a kind of organisation facilitating robust pedagogical views among families and society, cooperated successfully with Kazan Pedagogical Society.

2.4.2 Pedagogical society charter

The Charter of the Pedagogical Society at Kazan Imperial University, which was approved May 17, 1900, defined its main objective as follows: firstly, scientific development of systematic approach to the issues of Pedagogy, Didactics and Methodology, their application and history; secondly, assistance to those who profess teaching activities and their preparation for this activity. The Society was granted the right:

- to organise open and closed meetings;
- to deliver public readings in Kazan and other cities of the Kazan School District according to the programs approved by the Society Board;
- to organize congresses and exhibitions;
- to publish works and translations relevant to the Society objectives in the form of collections, books and brochures;
- to issue special periodical editions;
- to establish scholarships, grant monetary awards and medals;
- to promote pedagogical excursions;
- to establish museums and libraries for educational purposes etc. [9].

It was planned to open Society’s special departments: National Language and Literature, History and Geography, Classical Philology, Physics and Mathematics, Natural History, and others.

The funds derived primarily from its members’ contributions, distribution of publications, public lectures fees, and donations, were used by the Society to update its library and museum, to organise educational courses, congresses and publishing activities.

3 Conclusion

International experience and enthusiasm of Kazan University teaching staff had a profound influence on the development of additional education in Kazan Province in the late 19th and early 20th centuries. The varying order of extension activities of Kazan Imperial University covered: foreign missions of University professors with research and educational purposes; individual mentoring classes of recognised scholars; widening University activities through creation of additional education institutions in accordance with University Extension Movement. These extension activities can be regarded as the foundation for additional education formation in the 19th and early 20th centuries.

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