

# **The skill of delivering lectures in higher education**

**(historical and pedagogical aspect)**

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Analysis of historical, teaching, memoirs and biographical sources, as well as the works on the history of medicine has shown that lecturership has been and remains an integral part of educator's pedagogical skills. The author of the article analyzes the lecturing skills as a synthesis of deep scientific knowledge combined with professional orientation of individual and genuine enthusiasm in the object of teaching, general and professional erudition, high level of general and professional culture, inner need "to ignite the students' audience". The work is multidisciplinary in nature and may be of interest for experts in the field of pedagogy of higher education, and teachers at higher education institutions.

***Keywords:*** *lecture, lecture delivering skill, higher education, teaching skills, lecturer's personality.*

**Background.** Among other organizational forms of teaching in higher education, the lecture, which dates back to antiquity, became widespread in the Middle Ages and the mid-twentieth century, remains one of the leading forms of education, and it occupies a special place. Despite the fact that over the last decade in higher education and health care in particular, there has been a significant reduction of lecture hours and heated discussions (which are sustained for almost 150 years!) do not cease between the adherents and opponents of lectures, the teaching practice confirms that the image of a university level educator, his professional and pedagogical skills are largely predetermined by lecturing skills, because at lectures the scientific, educational, organizational, public speaking and creative abilities of the educator are maximally revealed. In higher medical educational institutions, lectures play special role because of the ability to form the professional identity and position

to provide professional and deontological ethical education of future doctors, their conscious attitudes to future professional activity [4, p. 98].

**Analysis of recent research and publications.** Features of lectures and seminars at medical universities have already been examined by A.Pletnev, M. Kochukova, V. Bielchynskyi; N. Rogova considers lecturing skills as the basis for educational activities; V. Savchenko – as the leading form in teaching physics; O. Semynog has described the functions, types, features of the scientific and pedagogical text of lectures in educational measurement steps; T. Tochilina outlined the ways to improve the study of physics during lectures at higher educational institution; O. Timofieiev substantiated the relationship between lecturing and teaching skills; in the research paper by V. Telnyi the features of lectures as a kind of educational work with students are defined; O. Rudaskova and O. Zubareva conducted the comparative analysis of the subjective perception of sports university students in terms of different methods of delivering lectures. However, any phenomenon can be considered thoroughly investigated only if its study is both in synchrony and diachrony that encourages us to focus on the historical and pedagogical skill aspect of lecturership in higher education.

**The aim of the article** is to synthesize the essence of the concept of “educator’s lecturership” in the diachronic aspect and isolating integral characteristics in synchrony. To implement the objective, we used such **methods** as historical actualizing of the problem of lecturership skills; analysis of historical, teaching, memoirs, biographical sources, and works on the history of medicine to illustrate the basic idea of the study about the closely association between lectures and teaching skills higher education; synthesis and generalization to formulate conclusions and perspectives for future research.

**Presenting main material.** Understanding the place of lecturing skills in the structure pedagogical skills of higher education leads to the fact that sometimes these concepts are considered “relatively equal” [9]. Despite the fact that the concept of "pedagogical skills" is much broader, deeper and more volumetric, analysis of the literature on the investigated issue allows to admit that this idea has the logical

explanation given the unique role played by lecture at universities up to 1980s, and in view of the functions assigned to the current university lecture, and requirements that apply to the individual speaker in today's conditions.

Exploring the evolution of educational process in the university education system of Ukraine (19th – early 20th century.) L.F. Kurylo notes that "... the content of the lectures, their depth, scientific and methodological level of teaching the learning material were determined by and professional and teaching features of an educator, their attitude to the subject. ... Outstanding lecturers provide quality educational process at universities, determine the level of basic and general training [7, p. 214]", that is, helped the shape the positive image of the educational institution.

Describing lecturing skills of educators of that time, authors of "Short History of Kharkiv University for the first hundred years of its existence" [3], emphasized such types of lecturers as: outstanding, mediocre and unsatisfactory. In the context of our research, noteworthy is the characteristic of outstanding and unsatisfactory lecturers. The first, being permeated with love to their subject, delivered lectures perfectly, were notably gifted in terms of speech, presentation logic, deep erudition and independence of thought so that "could even poeticize the differential and integral equations". These educators not only enjoyed great respect among students, but also were able to instill love for their subject, engage students' attention.

Poor distinguished lecturers provided surface information on the subject, displayed unscrupulous attitude to the duties of the teacher, homeric ease and casualness in teaching, speech impediment. These teachers started their lectures long after their colleagues, in fact, they also finished them ahead of others. Teaching the subject of such lecturers did not give the students any knowledge or emotions.

A vivid illustration of this thesis can serve the passage from Charles Darwin's autobiography, who, remembering the years of study at Edinburgh University, wrote: "Not without horror I remember the lectures of Dr. Duncan on Materia medisa that he delivered in the winter, starting at 8 am. Dr. Monroe made his lectures on human anatomy as boring, as boring he was, and I was filled with disgust to this science. The fact that no one encouraged me to study Anatomy, was a huge disaster in my life, just

as I would soon overcome, whereas these studies would be very useful for my future work. ... During the second year of my stay in Edinburgh I attended lectures by Professor Jamson on geology and zoology, but they were extremely monotonous. The only result of the impression left in me from these lectures, it was never a decision until I live, to read books on geology and never engage in this science” [5].

Instead, in the history of higher education there were the names of many prominent scientists - lecturers, the founders of scientific schools. Hence, lectures by M. Kostomarov, a prominent historian, ethnographer, writer, who made a considerable contribution to the development of Ukrainian education and culture during the Enlightenment era, were distinguished by broad erudition, great expressive speech, critical approach to sources and novelty in presentation of the material. B. Mordovtsev remembered lectures by M. Kostomarov as follows: “He used witchcraft and enchanted his students by brilliant passionate language. Erudition was huge because of his extraordinary memory, which surprised everyone. He remembered the entire pages of reading - all the serious material, as well as the smallest details [13, p. 80]”.

Looking at the historical and pedagogical aspect of prominent scientists and lecturers - representatives of the natural sciences, one cannot omit the figure of D. Mendeleyev, whose lectures were notable by continuity of thought, “the creative work at the department”, the depth of expression, the philosophy underlying the scientific opinion, who was “philosopher in natural sciences” and naturalist in the problems of philosophy, political economy and sociology” [8]. Graduates of St. Petersburg University, where the scientist taught for over 34 years, remembered the lectures by D. Mendeleyev: “We have developed a critical view of science [8, p. 19]”.

Very interesting, in our view, is the expression of one of the students of D. Mendeleyev - a renowned chemist G. Gustavson about “the eternal question of the need and importance of the lecture - an issue so differently solved and not solved”. Scientists wrote that “the objectives and purpose of the lecture are precisely in persistent separation of significant details from the secondary ones. For beginners it is

a vital issue, and textbook no matter how perfect, cannot give in this regard that much as the lecture [8, p. 19]". And once again I am referring to the importance of "the live word" required for the perception of science.

D. Mendeleyev almost intuitively mastered teaching methods that are now widely described in the literature. Thus, memories to draw attention of the audience D. Mendeleyev widely applied techniques of changing the height and strength of voice, and to switch attention of listeners the scientist often accompanied them by setbacks in other scientific fields, which passed into practical level of application.

Contemporaries remembered that D. Mendeleyev was far from a classic demonstration of the speaker, the external parameters of his speech stood out of perfection, most of his lecture style was characterized by the *sui generis* extemporalness and "original way of presentation" that harmonized "with original appearance" that miraculously facilitated the assimilation of what was discussed in the lecture. To a large extent this contributed to the fact that Mendeleev, being one of the prominent scientists who took part in the solution of new problems, and his familiarity with the equally famous contemporaries made it possible to "make a direct observation and experience into the statement like a live stream, which gave his words freshness, vitality and truthfulness, and filled with vivid images the listeners' minds [8, p. 56]".

S. Kolomnin was the unsurpassed lecturer, a distinguished scholar and a practicing surgeon, who went down in history of domestic medicine and surgery in particular, as a symbol of the highest medical liability. According to Ukrainian researcher G. Aronov, "the medical faculty knew a lot of great speakers, but none of them was awarded by such recognition from colleagues as Professor S.P. Kolomnin". In support of these words, the author gives numerous lectures memories of this famous scientist of the tragic fate (at the age of 44, S. Kolomnin, while in the prime of scientific forces and surgical capabilities, shot himself after the death of the patient, due to, as he believed his failure during the operation, in fact, it was the effect of cocaine overdose, which was used for anesthesia at that time). Thus, G. Aronov brings memories of colleagues: "Mr Kolomnin's lectures include content of such

completeness that they leave nothing to be desired. The success of these lectures is known not only at one medical faculty [1]”.

According to other memories described by G. Aronov, at Kolomnin's lectures, despite the extremely uncomfortable afternoon hour, not only the mandatory but also optional listeners were crowded. During four successive courses, lectures by S.P. Kolomnin were the most visited at the medical faculty. However, these lectures were perfect, but not spectacular in the formal sense, they attracted mostly students with rigorous scientific attitude, they were complete and up-to-date in their content [1].

Equally high is the opinion of other former students: “Lectures by Kolomnin in Kiev kept us in a charming impression; during his stay at the University I have not heard a better lecturer. He taught the subject so vividly and eloquently that it fascinated the audience; after the first lecture not only doctors of course came together, but even students from other faculties - so great was his fame. Many classrooms were empty and when professors asked, where were the students, one would answer: at Kolomnin's lecture. Students adored him and almost overcrowded audience after each lecture exploded in a storm of applause. Completeness of each lecture was particularly impressive - as if there was no extra words, no eloquent phrases and yet it was a beautiful and exciting presentation”. Of course, not only S. Kolomnin's speech captivated the audience, but his true identity of the knight in medicine, a bold innovator who put the interests of patients above all else [1]”.

As a consummate lecturer stayed in numerous memoirs of contemporaries the distinguished mathematician and educator M. Ostrogradsky. Lectures of the scientist were distinguished by saturation and richness of the material, excellent systematization, brevity and clarity of exposition, his way of teaching mathematical material approached the narrative: “Ostrogradsky delivered lectured so that all admired; the most difficult things he taught with such simplicity and clarity that not to understand it was impossible. But seeing that there were some students seemingly scared, he quickly rubbed the written away and cited another way of proof, not even thinking. Indeed, this was a man who had an unusual gift to improve their area and drive it forward [10, p. 74].

Noteworthy are the features of character and appearance of M. Ostrogradsky. His numerous students noted an easy character, ability to make appropriate joke, love to communicate with the audience. Very impressed listeners the attractive appearance of scientist - a powerful figure, noble high forehead, pleasant face, which read minds and strength, complementing the impression that he made on colleagues, students and cadets. Such harmony once again serves as a vivid illustration of the truth of Georges Louis Buffon's words: "The style is the man himself".

The prominent physician and educator M. Pirogov was also a good lecturer. According to eyewitnesses, when Pirogov's lecture took place classrooms were always crowded because there were not only students and doctors, but also artists, ladies and military. Pirogov's lectures were distinguished by clear teaching style and extraordinary substantial nature [6].

Reflecting in "Letters from Heidelberg" on the need for lecture teaching and lecturing skills, Pirogov himself noted that "vox viva", i.e., the lecture, is better than books, despite the fact that "... on the practice out of three voices, perhaps there will be two that will cradle rather than revive the listener ... Action of voice as a live language, on the audience, in fact, is extremely noticeable when the teacher has the gift of speech and when he wants not just to convince, but to excite and astound his audience [12, p. 396]".

As a talented and visionary teacher, M. Pirogov already set and the actual conditions in the present issue of attending lectures and wrote that he "would require his audience that each of them came to the lecture with... comments and questions ... These observations, short and recorded only be concerned what would seem to everyone unclear or doubtful while reading. Explanation of obscurity and doubt would be the subject of the lecture. Method of explanation, of course, would depend on the individual teacher, the audience and the subject. Hence, this lecture would have a different look, a simple conversation or a more consistent presentation [12, p. 397]".

Undeniable advantages of these lectures, according to scientists, should be the following: 1) the lecturer would not spend the time that the educated listener can

learn independently, so the lecture would be what they should be - help to mental labor of the listener; 2) the audience would be morally obliged not to be limited to formal and passive lectures, since if it were not for love of science, the pride would prompt many to become actors at lectures; 3) classes would have gained greater autonomy - there would be less talk and more work [12, p. 398].

In unison with these requirements are the requirements that apply to lectures in modern didactics: "For lecture in order to be interesting, it must take into account the specific conditions: 1) awareness of personal meaning by students in gaining knowledge in a particular scientific field; 2) understanding by the audience of the novelty in presented material, while being associated with the knowledge that it already possessed; 3) encouraging and stimulating the mental activity of students [11, p. 129]".

In this context, we fully agree with the thesis of O. Timofeyev that the effect of the lecture does not end after its completion, the lecture is valuable for its prolonged effect, it must be remembered by learners, and will be further developed without the participation of the speaker - in the mind of the listener [15, p. 72].

As to the requirements for the lecturer, they are concentrated in the words of one of the classics of pedagogics S. Arkhangelskyi: "There is a simple formula that determines how to lecture, to attract the attention of the audience and keep it throughout the lecture. To this end, in addition to teaching vocation and sincere desire to be a good lecturer, an educator should possess: excellent knowledge of the subject; skillful combination of content, presentation logic and imagery; study of skills from best lecturers, teachers; hard work in preparation for each lecture; the rest will come with time, including diction, gestures and so on [2, p. 320-321]".

Analyzing the current lecture, Ukrainian researcher V. Savchenko said that among other conditions that ensure the effectiveness of lectures, the considerable role belongs to teaching skills and lecturer's personality. Indicators of pedagogical skills, according to scientists, are "a teacher should know and be able to practice the basic techniques of public speaking, have a voice, be able to attract and keep the attention of the audience, be able to calculate the amount of material for lectures, be able to

successfully put questions to arouse thinking of students [14, p. 56]”. According to V. Savchenko, the following requirement are set in front of educators: they should not be “the voiced textbook”, but attract the attention of students as an outstanding personality, have pleasant appearance, be able to dress tastefully, if necessary to keep conversation on outside topics (but not to detriment the lecture material), have their own hobbies. The lecture should be delivered passionately, with emotional enthusiasm, because the listener’s confidence in the speaker’s own words gives much more convincing justice than logical reasoning [14].

To illustrate this thesis, in our opinion, it will not be superfluous once again to turn to the pedagogical legacy of M. Pirogov, who in the article “The university issues” recalled his lecturing educators: “Loder, Frank Fischer, Struve, Seidlitz, Bush, delivering lectures in Latin, German and p i g e o n Russian (splitting is mine – O.B.: The majority of educators who taught medicine in the Russian Empire in XVIII-XIX centuries, were foreigners who did not master Russian perfectly, therefore, most lectures were delivered either in Latin, or German), inspired us and awakened the love for science [12, p. 328]”.

**Conclusions.** Analysis of historical and educational, memoirs and biographical sources, and works on the history of medicine has shown that lecturing skills has been and remains an integral part of teacher’s pedagogical skills. As an integral characteristic of professional identity, lecturing skills is a synthesis of deep scientific knowledge combined with professional orientation of individual and genuine enthusiasm in the teaching object, general and professional erudition, high level of general and professional culture, internal demand and real ability to influence the rational and emotional sphere of students.

An in-depth scientific and pedagogical search should be directed at the issues of the specifics of teaching lecture material on subjects of different cycles of study (humanitarian, socio-economic, natural and scientific, professional, practical) in higher educational institutions, as well as the relationship between the communicative image of the teacher and the perception of lectures by students.

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