

Anthropological study of lecture work in the context of distance education

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Abstract

The purpose of the article is to reveal the features of the use of lecture work in the context of distance education. The problem is that not all forms of this work are effective enough in the new (digital) environment. The analysis of digital resources of several universities allowed us to conclude that the digital environment imposes certain didactic requirements for the selection and design of lecture content. In the course of the preliminary study, it was found that in the second half of 2021, teachers and students preferred distance content as lecturing remotely and taking exams is easier for both teachers, and students. However, knowledge, skills, competencies do not improve in this case. Students admit that it is possible to get a higher grade than they would have had in class. Teachers overmark making allowances for the temporary difficulties of objective assessment in the context of the evolving coronavirus pandemic. Kant's anthropology of didactics became the research methodology. The anthropological approach to the analysis of lectures allowed us to establish that in distance conditions lectures in the format of storytelling, gamification (game activity) and problem presentation are most effective: this format makes the most of the anthropological features of perception, understanding, and retrieval. However, the implementation of storytelling, gamification, and problem presentation requires compliance with certain methodological requirements. As a result of the conducted research, it was found that a modern lecture in conditions of remote interaction should include storytelling (narration), containing the activity components of perception, understanding, reproduction (set-up, movement, high point, resolution); problem statement, revealing the contradictions (intrigue) in the content of the facts, which are told of in the lecture; gamification, which involves the use of game elements in non-game situations

Keywords 1

lecture, anthropology, storytelling, gamification, distance education, university

1. Introduction

Lecture work is one of the most traditional forms of educational activity at the university, but specialists have always been interested in improving it [1]. Recently, this form has become the most problematic area of interaction between a teacher and a student [2]. The current conditions of the pandemic, which led to the development of various forms of distance education, influenced the problem.

The methodological basis of the research is the anthropology of Immanuel Kant, according to which, when organizing the cognitive activity of students, it is necessary to take into account the nature of a person – the peculiarities of his perception, understanding, reproduction [3].

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Many studies note the relevance of the multicultural aspect of communication [4, 5, 6]; as well as bilingual [7, 8, 9]; national [10, 11, 12]; transnational [13, 14, 15] aspects. To overcome linguistic difficulties, we need interesting forms of communication.

For the teaching staff, lecture work takes up a significant part of the academic workload and when switching to the distance format, this load caused the greatest number of questions. Among them are the lack of requirements for remote lectures, the lack of knowledge of psychological, pedagogical, and methodological forms of interaction between the lecturer and the student, the lack of diagnostic methods for evaluating the effectiveness of lecture work in the conditions of digital interaction, etc.

The experience of the first two years (2020-2021) of forced transferring of lectures into a distance format showed the urgent need to develop both theoretical and methodological issues of organizing lecture work in the conditions of digital education.

The problem of the study is the contradiction that is recognized, on the one hand, due to presence in Russian and foreign science a large number of techniques, technologies, curriculum of lectures organization, which had a positive effect prior to the introduction of distance education, on the other hand, because of the lack of effective forms of lectures adequate to new – modern – conditions of distance education.

The purpose of the study is to identify effective forms of lecture work in the conditions of distance education, to develop recommendations for adapting lecture forms of work to the conditions of distance education.

2. Literature review

Theoretical issues of interaction between a teacher and a student have always been relevant in the Russian and foreign press [16], as well as the issues of finding a positive experience in organizing lecture work in the conditions of remote communication [17, 18, 19]. The study of the psychological aspects of teacher-student interaction determined the prospects of didactic searches [20, 21, 22].

The first results of distance education allowed us to draw conclusions that the distance format should be combined with the traditional one and that distance education should be made more anthropological (human, personalized, research-oriented) [22].

Despite the official statistics of the growth of the quality of education in the conditions of the adoption of restrictive measures and the introduction of distance education [22], ordinary teachers recognize a decrease in this quality due to the lack of necessary remote interaction competencies and the inability of teachers to explain difficult questions by looking students not in the eyes, but at their screen avatars.

At the same time, it turned out that now (by the middle of 2021) it is easier for both teachers and students to read lectures and take exams remotely (67% for distance learning, 22% against it, 11% for mixed). However, knowledge, skills, and competencies do not improve from this. Students admit that distantly it is possible to get a higher grade than the one they really deserve. Teachers give higher grades, making allowances for the temporary difficulties of objective assessment in the context of the developing coronavirus pandemic.

3. Research findings

In 2020-2021, we conducted a study of the effectiveness of lecture work in the conditions of remote interaction in universities of the Republic of Tatarstan and the Moscow region. The lecture activities of 232 teachers were analyzed at the selected universities.

The research area included lectures accompanied by digital educational resources. They included lecture notes, fragments of video lectures, questions for forums, midline and final testing.

However, the interaction was based on a lecture (distant); and at the end of the course, the student received a grade depending on how many points he scored in the automated (test) mode. Thus, the teacher could no longer influence this grade.

According to the points obtained, it was possible to judge the level of assimilation of the lecture material in the conditions of remote interaction between the teacher and the student: 0 - 35 points – low level; 36 - 70 points – average level; 71 – 100 points – high level.

The scheme of this lecture is shown in fig.1 (see Fig.1).

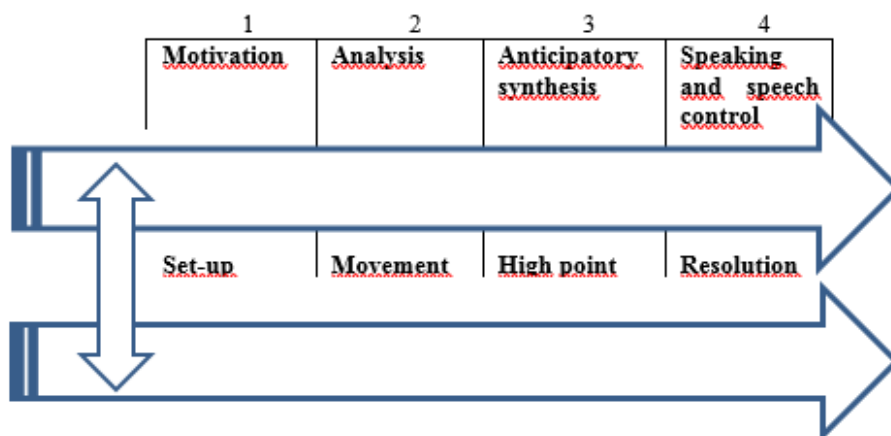


Fig.1 Synchronization of speech activity with the compositional scheme of the story

Fig.1 shows synchronization of speech activity with the compositional scheme of the story: motivation is synchronized with the set-up of the action, the subconscious analysis of the communication content is synchronized with the development of the action, proactive synthesis with the high point of the action, speaking and speech control - with the resolution of the action.

Thus, in distance communication with students, a lot of attention was paid to an interesting, exciting story.

It was found that among the various forms of lecture work, 7 forms (in descending order) dominate among teachers:

- informational lecture (a lecture with a predominance of traditional informational content both in the teacher's monologue and in his presentation) (used by 32% of teachers);
- problem lecture (with problems, elements of heuristics, discussions in the lecture) (used by 22% of teachers);
- lecture with predominance of visual and figurative content (with materials of bright and effective presentations) (used by 18% of teachers);
- dialogue and polylogue lecture (including the opinions of experts, authoritative specialists, tutors, mentors) (used by 10% of teachers);
- lecture with intriguing video materials (used by 8% of teachers);
- lecture with elements of engaging gamification (used by 6% of teachers);
- storytelling lecture (with compositional scheme of the story) (used by 4% of teachers).

Data on the effectiveness of assimilation of the content after the final test control are presented in Figure 1 (see Figure 1).

The distribution of lectures according to the levels of assimilation of the content (after the students completed the test tasks) turned out to be as follows.

The high level was manifested in such forms of lecture activity as:

- storytelling lecture (with a compositional scheme of the story), problem lecture (with problems, elements of heuristics, discussions in the lecture),
- problem lecture (with problems, elements of heuristics, discussions in the lecture),
- lecture with elements of engaging gamification.

Students scored from 71 to 100 points according to the test results.

The average level was shown in such forms of lecture activity as:

- informational lecture (a lecture with a predominance of traditional informational content both in the teacher's monologue and in his presentation),
- lecture with predominance of visual and figurative content (with materials of bright and effective presentations).

Students scored from 36 to 70 points according to the test results.

The low level was manifested in such forms of lecture activity as:

- dialogue and polylogue lecture (including the opinions of experts, authoritative specialists, tutors, mentors),
- lecture with intriguing video materials.

Students scored from 0 to 35 points according to the test results.

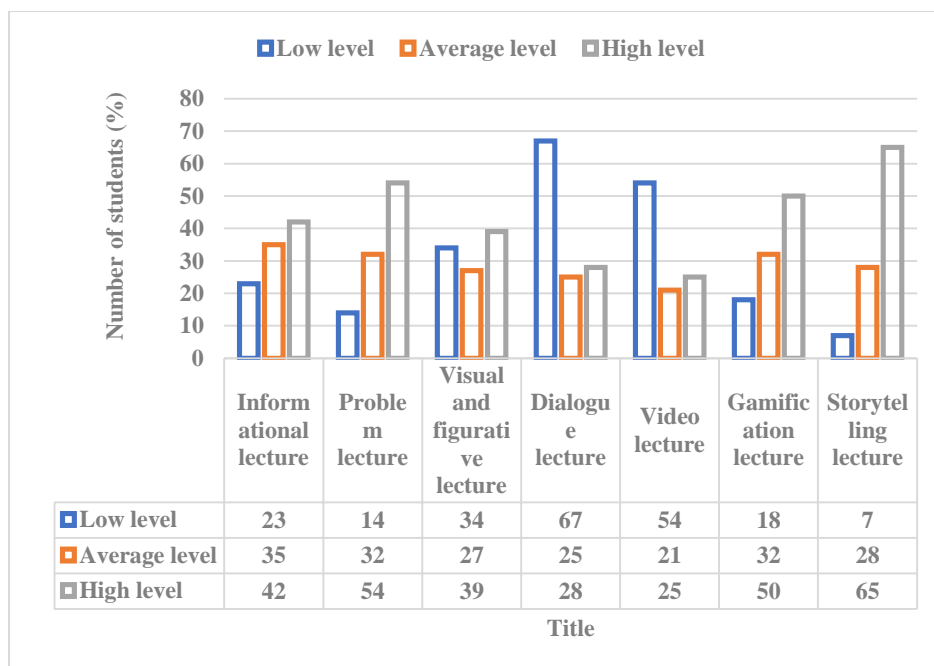


Fig. 2. *Distribution of students by levels of assimilation of lecture content (in %)*

From Figure 2 (see Fig. 2) it is clear that the popularity of certain forms of lecture work among teachers does not always correlate with the effectiveness of mastering their content. For example, the most common form among teachers – informational lecture (it is used by about 32% of teachers) allows achieving a high level of assimilation in 42% of students, an average level - in 35%, 23% of students remain at a low level.

The lowest results were found for a lecture with video materials (about 8% of teachers choose it). High level was shown by 25% of students, 21% show average level, and 54% of students show low level. Students watch the video accompaniment with interest, however, they do not always know how to use the information received when performing tests.

The dialogue (polylogue) lecture also shows poor performance: only 28% of students demonstrate high level, average – 25%, and low – 67% of students. Everyone knows how difficult it is to organize participation of experts in the lecture work. However, this does not affect the quality of knowledge, according to the test results. The statements of experts do not always fit into the logic of the teacher's reasoning, distract listeners (students) from the essence and do not allow them to form stable knowledge.

A good result is shown by a gamification lecture, a lecture that takes place in a game (story-role or didactic) form: 50% of students show high level when performing tests, 32% demonstrate average level. However, this lecture requires a lot of methodological preparation and only 6% of teachers choose it.

The highest efficiency in the conditions of remote interaction was shown, oddly enough, by the storytelling lecture. Storytelling was deliberately chosen and modeled by only 4% of teachers. However, according to the test results, 65% of students showed the effectiveness of mastering the content at high level, only 7% showed it at low level.

Such a lecture was made according to the compositional scheme of a work of art as a fascinating story that has its own set-up, movement, high point, resolution. The story sounded like a scientific discovery with its own story and intrigue. At the same time, there were no presentations, no video materials, or other distracting (or immersive) means of innovative learning at such a lecture.

The anthropological meaning of this scheme is that it is ideally superposed on the scheme of the student's cognitive activity: motivation, analysis, proactive synthesis, exteriorization and interiorization (or speaking and speech control). The elements of problems (the communicative core) and gamification (playing outside the game) only enhance the effect of perception of the lecture content.

4. Discussion

The anthropology of cognitive activity consists in the fact that the student is primarily focused not on informational or visual content, but on the activity (functional) content (Gabdulhakov, 2021). Such content, as our analysis shows, is most fully provided by lectures in the form of storytelling (65% of students demonstrate high level of assimilation), problem solving (54% of students demonstrate high level of assimilation), gamification (50% of students demonstrate high level of assimilation).

5. Conclusions and recommendations

The results of the conducted research allow us to draw conclusions that the lecture work in the conditions of distance education should include such elements as:

- storytelling, which contains the activity components of perception, understanding, reproduction (set-up, movement, high point, resolution);
- a problematic presentation that reveals contradictions (intrigue) in the content of the facts discussed in the lecture;
- gamification, involving the use of game elements in non-game situations.

The experience of reading this kind of lectures shows that university professors should:

- consider the specific features of the speech activity psychology and of text linguistics;
- include storytelling in the content of their lectures, synchronizing its structure with the structure of speech activity;
- vary the content of storytelling with elements of modern digital gamification.

References

- [1] Davidenko, E. S.: Activation of the lecture form of education at the university. // *Sovremennye problemy nauki i obrazovaniya* (Modern Problems of Science and Education). 2019. No. 5. URL: <https://science-education.ru/ru/article/view?id=29179>, last accessed 2021/06/19.
- [2] Anpilov, S.M., Sorochaikin, A.N.: Distance higher education in Russia during the pandemic: interim results. Management of socio-economic development of the society. 2021. URL: <https://cyberleninka.ru/article/n/distsionnoe-vysshee-obrazovanie-v-rossii-v-period-pandemii-promezhutochnye-itogi/viewer>, last accessed 2021/06.19.
- [3] Kant, Immanuel: Anthropology from a pragmatic point of view. URL: http://www.bim-bad.ru/docs/kant_anthropology.pdf, last accessed 2021/06/19.
- [4] Aengst, J. (2014). Adolescent movements: Dating, elopements, and youth policing in Ladakh, India. *Ethnos: Journal of Anthropology*, 79(5), 630–649. URL: <https://doi.org/10.1080/00141844.2013.817459>
- [5] Berman, S. L., Ratner, K., Cheng, M., Li, S., Jhington, G., & Sukumaran, N. (2014). Identity distress during the era of globalization: A cross-national comparative study of India, China, and the United States. *Identity: An International Journal of Theory and Research*, 14(4), 286–296. URL: <https://doi.org/10.1080/15283488.2014.944698> (Дата обращения 19.06.2021).
- [6] Chen, S. X., Benet-Martínez, V., Wu, W. C. H., Lam, B. C. P., & Bond, M. H. (2013). The role of dialectical self and bicultural identity integration in psychological adjustment. *Journal of Personality*, 81(1), 61–75. URL: <https://doi.org/10.1111/j.1467-6494.2012.00791.x> (Дата обращения 19.06.2021).
- [7] Cho, J., Morris, M. W., Slepian, M. L., & Tadmor, C. T. (2017). Choosing fusion: The effects of diversity ideologies on preference for culturally mixed experiences. *Journal of Experimental Social Psychology*, 69, 163–171. URL: <https://doi.org/10.1016/j.jesp.2016.06.013> (Дата обращения 19.06.2021).
- [8] Demes, K. A., & Geeraert, N. (2014). Measures matter: Scales for adaptation, cultural distance, and acculturation orientation Ferguson, G. M., & Bornstein, M. H. (2012). Remote acculturation: The “Americanization” of Jamaican islanders. *International Journal of Behavioral Development*, 36(3), 167–177. URL: <https://doi.org/10.1177/0165025412437066> (Дата обращения 19.06.2021).
- [9] Ferguson, Y. L., Ferguson, K. T., & Ferguson, G. M. (2015). I am Ameri BritSouthAfrican-Zambian: Multidimensional remote acculturation and well-being among urban Zambian adolescents. *International Journal of Psychology*, 52(1), 67–76. URL: <https://doi.org/10.1002/ijop.12191> (Дата обращения 19.06.2021).

- [10] Ferrari, L., Rosnati, R., Manzi, C., & Benet-Martínez, V. (2015). Ethnic identity, bicultural identity integration, and psychological well-being among transracial adoptees: A longitudinal study. *New Directions for Child and Adolescent Development*, 2015(150), 63–76. URL: <https://doi.org/10.1002/cad.20122> (Дата обращения 19.06.2021).
- [11] Harush, R., Lisak, A., & Erez, M. (2016). Extending the global acculturation model to untangle the culture mixing puzzle. *Journal of Cross-Cultural Psychology*, 47(10), 1395–1408. URL: <https://doi.org/10.1177/0022022116670261> (Дата обращения 19.06.2021).
- [12] Huynh, Q., Benet-Martínez, V., & Nguyen, A. D. (2018). Measuring variations in bicultural identity across U.S. ethnic and generational groups: Development and validation of the bicultural identity integration Scale—Version 2 (BIIS-2). *Psychological Assessment*, 30(12), 1581–1596. URL: <https://doi.org/10.1037/pas0000606> (Дата обращения 19.06.2021).
- [13] Whitton, N., & Moseley, A.: Deconstructing engagement: Rethinking involvement in learning. *Simulation & Gaming*, 45 (4-5), 433-449 (2014). URL: <http://doi:10.1177/1046878114554755>, last accessed 2021/06/19.
- [14] Lepshiy A.P., Lepshaya N.A.: Improving the effectiveness of the lecture by the method of active learning of students. https://www.gstu.by/sites/default/files/atoms/files/3b/51/lepshiy_lepshaya.pdf , last accessed 2021/06/19.
- [15] Elizarova, N.N., Gvozdeva, T.V., Tselishchev, E.S.: The use of distance educational technologies to improve the effectiveness of student learning. URL: <https://science-education.ru/pdf/2015/1/665.pdf>, last accessed 2021/06/19.
- [16] Distance technologies in education: monograph / T.V. Maksiyanova, O.S. Tarasenko, L.N. Ruliene [et al.] ; under the general editorship N.V. Laletina; Siberian federal university; Krasnoyarsk state pedagogical university n/a V.P. Astafyev [et al.]. – Krasnoyarsk: Information Center, 2012. – 164 p.
- [17] Dolgaya, O.I.: Distantionnoe obuchenie za rubezhom na sovremennom etape [Distance learning abroad at present]. // *School technologies*. 2019. no. 2. URL: <https://cyberleninka.ru/article/n/distantionnoe-obuchenie-za-rubezhom-na-sovremennom-etape/viewer>, last accessed 2021/06/19.
- [18] Lisa K. Forbes: The Process of Play in Learning in Higher Education: A Phenomenological Study. *Journal of Teaching and Learning* Vol. 15, No. 1(2021), pp.57-73 <https://doi.org/10.22329/jtl.v15i1.6515>. URL: <https://jtl.uwindsor.ca/index.php/jtl/article/view/6515/5264>, last accessed 2021/06/19.
- [19] Ambrosi, S.; Lemaire, P.; Blaye, A.: Do young children modulate their cognitive control: *Sequential congruency effects across three conflict tasks in 5-to-6 year-olds*. *Exp. Psychol.* 63, 117-126 (2016)
- [20] Blair, C.; Raver, C.C.: School Readiness and Self-Regulation: A Developmental Psychobiological Approach. *Annu. Rev. Psychol.* 66, 711-731. (2015)
- [21] Chevalier, N.; Martis, S.B.; Curran, T.; Munakata, Y.: Metacognitive processes in executive control development: *The case of reactive and proactive control*. *J. Cogn. Neurosci.* 27, 1125-1136. (2015).
- [22] Gabdulhakov, V.F.: Storytelling in the context of digital education. URL: <https://youtu.be/5zyRn9HszII>, last accessed 2021/06/19.