

The use of digital technologies for the development of pre-service teachers' rhetorical skills: the experience of Ukraine

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Abstract – The authors characterize the typology of digital technologies for the development of pre-service teachers' rhetorical skills: video content (speeches of prominent speakers of the past and present, fragments of movies, theater performances, television programs, speeches of masters of the word, lectures by national and foreign teachers, reports of famous teachers), audio content (podcasts, audiobooks), rhetoric courses on educational platforms, specialized rhetoric resources, specialized software in the field of rhetoric, social communities for on-line communication. The expert assessment was conducted to identify the most effective type of digital technology in the field of rhetoric for the development of pre-service teachers' rhetorical skills. The use of video content (speeches by prominent speakers of the past and present), audio content and specialized software was found to be the most effective. The conclusions of the expert group were confirmed by the Kendall concordance coefficient and the chi-square test for estimating the probability of the result.

Keywords – digital technologies; rhetorical skills; electronic educational resources; specialized software in the field of rhetoric; pre-service teacher; professional training; informal education.

I. INTRODUCTION

Digital technologies are in focus of the educational field, because they not only provide wide access to educational services, but also influence the formation and development of teachers' professional culture through the audio-visual learning content. The teacher passes on the heritage of humanity through communication with young people. Instead, young people today pay more attention to bright online content and neglect the norms of literary language and academicism. Young people are also interested in extraordinary personalities who are able to enhance their own ideas emotionally and thoughts in order to influence the consciousness of as many people as possible. This highlights the problem of forming pre-service teachers' rhetorical skills: the better the speech presentation of ideas, oral support of educational material, communication in the educational environment, the better results of educational activities.

The problem of formation of pre-service teachers' rhetorical skills in Ukraine was studied in different directions. We have established the connection between the

concepts of "speech skills" (A. Kapska), "rhetorical (oratorical) literacy" (Yu. Rozhdestvensky), "language personality" (O. Semenog), "professional performing culture" (N. Tarasevich), "pedagogical skill" (I. Zyazyun), "linguistic and journalistic culture" (V. Gamretsky), "rhetorical culture of the teacher's personality" (G. Sagach).

Among the results of scientific research in the context of the problem of forming pre-service teachers' rhetorical skills let's note: the development of a system of specialist's rhetorical skills (S. Abramovich, M. Chikarkova [1]); checking the effectiveness of pedagogical conditions of rhetorical training in an educational institution (N. Golub [2]); highlighting the features of pre-service teachers language training: aspects of the formation of rhetorical culture of humanities students (J. Bilousova [3]), students of technical specialties (O. Zalyubivska [4]), specialists of inclusive educational institutions (V. Tarasova [5]), pre-service teachers ([6]); theoretical principles of formation of rhetorical culture of teachers of higher education institutions (L. Luneva [7]); analysis of the impact of rhetoric on the process of socialization of the individual and the formation of cultural norms and patterns of behavior (R. Wess [8]).

However, the systematic analysis of the findings confirmed the fragmentary nature of the work on the use of digital technologies in the development of pre-service teachers' rhetorical skills, which determined the purpose of our study.

The purpose of the article is to identify the digital technologies types that will be successful in developing the pre-service teachers' rhetorical skills.

This purpose led to the solution of the following tasks: 1) to clarify the essential characteristics of rhetorical skills; 2) describe the digital technologies types that can potentially affect the level of development of rhetorical skills; 3) to conduct an expert evaluation of the effectiveness of certain digital technologies types in the field of rhetoric for the successful development of pre-service teachers' rhetorical skills.

II. LIST OF PRE-SERVICE TEACHERS' RHETORICAL SKILLS

According to the results of the terminological analysis of the "rhetoric" concept, analysis of the findings of leading Ukrainian researchers of this category (G. Sagach, O. Zalyubivska, J. Bilousova) we found that the pre-service teachers' rhetorical skills include:

- ability to apply in practice the technology of preparation and delivery of speeches of various kinds;
- verbal and nonverbal communication skills;
- speech technique (professional breathing, diction, individual vocal qualities)
- artistry of the speaker (the ability to bright, expressive, skillful, aesthetically pleasing presentation of speech);
- polemical skills;
- ability to solve communicative tasks in a specific communication situation.

III. DIGITAL TECHNOLOGIES FOR THE DEVELOPMENT OF RHETORICAL SKILLS

Since ancient times, among the most effective ways to develop pre-service teachers' rhetorical skills are studying the speeches of famous speakers (structure, style, rhetorical paths and figures, etc.), observing the speeches of masters of eloquence (oratorical manner, use of verbal and nonverbal means), writing and delivering their own speeches of various kinds.

With the digital technologies development, it has become possible to add to this list:

- specialized resources on rhetoric (resource American Rhetoric (<http://www.americanrhetoric.com>, Fig. 1), resource American Society for History of Rhetoric (<http://ashr.org>, Fig. 2), resource of the Italian Rhetorical Association PerLaRe Associazione Per La Retorica (<http://www.perlaretorica.it/>, Fig. 3);
- specialized software in the field of rhetoric, focused on improving speech technique (professional breathing, diction, sound positioning), mastering the methods of preparing a public speech, methods of discussion, control over their own speech deficiencies and errors (Trener Oratora – <https://cutt.ly/CI9zQ6C>, Umno – ummoapp.com, Public Speaking – <https://cutt.ly/oI9zAVy>, Chernaja ritorika – <https://cutt.ly/FI9zGqH>, Govorillo – <https://cutt.ly/II9zKGu>);

- social communities of rhetorical direction, for example, the community "Oratorske mystetstvo. Krasnomovets" (<https://www.facebook.com/groups/krasnomovec/>), Community «Orator Club» (<https://www.instagram.com/oratorclub/?hl=ru>) (Fig.4-5);

- electronic educational resources on rhetoric: electronic texts, diagrams and tables, portraits, materials from multimedia encyclopedias, slides, soundtrack, video clips, etc. (Table 1).



Figure 1. Resource American Rhetoric



Figure 2. Resource American Society for History of Rhetoric



Figure 3. Resource of the Italian Rhetorical Association PerLaRe Associazione Per La Retorica

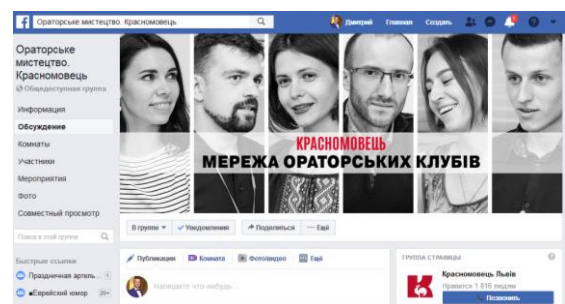


Figure 4. The community "Oratorske mystetstvo. Krasnomovets" in Facebook

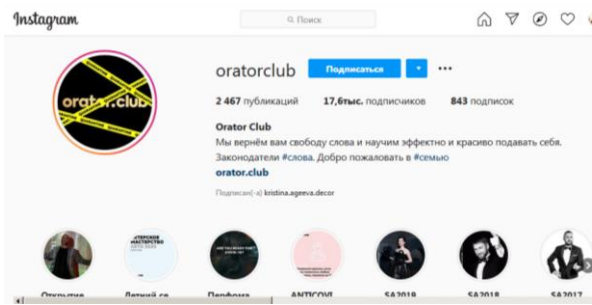


Figure 5. The community Orator Club in Instagram

In the process of developing the pre-service teachers' rhetorical skills, digital technologies are used to: acquaint with theoretical material, visual support, analysis of techniques, methods of writing and presenting texts of speeches; development of video and audio support.

The analysis showed the lack of Internet resources on Ukrainian eloquence, as well as Internet resources adapted to the needs of students and teachers of Ukrainian higher education institutions who want to develop a national rhetorical culture.

TABLE I. ELECTRONIC EDUCATIONAL RESOURCES ON RHETORIC

Video content	
Speeches of outstanding speakers of the past and present	Martin Luther King «I have a dream...», https://www.youtube.com/watch?v=VN282cxN_30 Barak Obama. Speech after winning the US presidential election https://www.youtube.com/watch?v=q3LzW3_q_fE Steve Jobs. Speech to Stanford University graduates https://www.youtube.com/watch?v=UF8uR6Z6KLc [13] Mark Zuckerberg. Speech to Harvard University graduates https://www.youtube.com/watch?v=QM8l623AouM
Fragments of movies, theater performances, television programs, performances of masters of the artistic word	Charlie Chaplin's speech from the movie "The Great Dictator" https://www.youtube.com/watch?v=d3X4fX_GEXM Speech by King George VI of Great Britain from the movie "The King Speaks", https://www.youtube.com/watch?v=VhU4R14CGsI Speech by Churchill, the Prime Minister of the United Kingdom from the movie "Dark Times", https://www.youtube.com/watch?v=BaNMX-LPuTo&pbjreload=101
Lectures of national and foreign teachers, reports of famous scientists, fragments of lessons and educational activities	Lecture of Prof. A. Kozarzhevsky "Introduction to rhetoric and speech technique", https://www.youtube.com/watch?v=G8XGUqZs5KI Lecture of Prof. O. Volkov "Rhetoric. Introduction", https://www.youtube.com/watch?v=rzCcVe23by8
Channel https://www.youtube.com , dedicated to the problems of public speaking	Channel «Krasnomovets» https://www.youtube.com/channel/UCHuJcW8J27sQgF3oSR6zvvgg/
Audio content	
Podcasts	Audio Course "Rhetoric Online", https://soundcloud.com/cdo8ffkrb5xm Audio course "Rhetoric: Theory and History", https://www.youtube.com/watch?v=V-0n_hugh3I Audio course "Eloquent: trainings, methods of speech preparation, development of speech technique", https://www.youtube.com/channel/UCD3D65ckPVYJ9zrCSHxGiUQ
Audiobooks	Aristotle. Rhetoric, https://www.youtube.com/watch?v=gJytGqngUgI ; Carsten Bredemayer. Black rhetoric. The power and magic of the word https://www.youtube.com/watch?v=vWZn0R8_ad8 Collection of audiobooks on the rhetoric of modern authors, https://www.litres.ru/biznes-knigi/oratorskoye-iskusstvo/audioknigi/ https://zvukislov.ru/catalog/29-biznes-knigi/907-oratorskoe-iskusstvo-ritorika/
Rhetoric courses on educational platforms	
Institute of Postgraduate Education and Correspondence (Distance) Learning V. N. Karazina Kharkiv National University	Fundamentals of rhetoric and theory of argumentation https://dist.karazin.ua/news/show/osnovy-ritoriki-i-teorii-argumentacii
Channel for teachers	Master class "A good teacher is a little actor: the basics of public speaking" https://www.youtube.com/watch?v=F3AaJcb4Vww
Platform UDEMY	Rhetoric master class, https://cutt.ly/tOemvzD Public speaking course, https://www.udemy.com/course/oratormaster/
Platform EDUGET	Individual course of public speaking skills "Oratorio for teapots", https://cutt.ly/1Oemhho Training course on the skills of effective self-presentation "Secrets of effective self-presentation", https://www.eduget.com/course/sekrety_effektivnoj_samoprezentacii-2383/
Platform TED (Technology, Entertainment, Design)	How to use rhetoric to achieve the desired result. https://cutt.ly/JOemYIR How to speak so that people want to listen to you, https://www.youtube.com/watch?v=eIho2S0ZahI 7 secrets of the greatest speakers in history, https://www.youtube.com/watch?v=i0a61wFaF8A The secret of TED for outstanding public speaking, https://www.youtube.com/watch?v=-FOCpMAww28

IV. EXPERT EVALUATION OF THE USE OF DIGITAL TECHNOLOGIES FOR THE SUCCESSFUL DEVELOPMENT OF PRE-SERVICE TEACHER' RHETORICAL SKILLS

We studied the subjective opinion of students about the effectiveness of the use of digital technologies in the field of rhetoric for the development of pre-service teachers' rhetorical skills.

The basis of the study was Ivan Ziaziun Institute of Pedagogical Education and Adult Education of NAPS Ukraine (Kyiv, Ukraine) and Makarenko Sumy State Pedagogical University (Sumy, Ukraine).

The research methodology consisted of determining the subjective opinion of students about the impact of different digital technologies types on the development of their rhetorical skills and expert assessment of such digital technologies types.

The survey (2017-2019) involved 124 students of 1-2 courses who studied the disciplines "Public Speaking" and "Pedagogical Creativity" [9]. According to the results of the survey, on the students' opinion, the most effective means of developing rhetorical skills are mobile applications aimed at improving the culture and techniques of speech (Traner Oratora and Govorillo) (90.3%); educational resources, such as TED (Technology,

Entertainment, Design) (81.4%); audio courses on rhetoric and podcasts posted on YouTube (87.9%), as well as speeches by prominent speakers of the past and the present (77.4%).

Specialized mobile applications, according to students, are the most effective, which explains the ability not only to record, edit and publish their own speech and make a detailed analysis and correction, but also to be acquainted with similar creative work of their classmates.

We also conducted an expert assessment of the use of digital technologies in the development of pre-service teachers' rhetorical skills. To do this, six experts in the field of public speaking were involved. They had to rank the digital technology types in order from the most effective (rank 1) to the least effective (rank 7). Their estimates were subjected to statistical analysis using the Kendall concordance coefficient [10]. The results of the expert assessment are shown in Table 2.

According to experts, the most effective were the use of video content (speeches by prominent speakers of the past and present), the use of audio content and the use of specialized rhetorical resources, as evidenced by Kendall concordance coefficient (0.87) and χ^2 test, $\chi=26.85$. It confirms the reliability of the conclusions of the expert group at the significance level of 0.05.

TABLE II. RESULTS OF EXPERT ASSESSMENT

Electronic Recourse Types	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6
Rhetoric courses on educational platforms	5	5	6	7	7	7
Video content: speeches of outstanding speakers (1)	1	3	2	1	1	2
Video content: fragments of films, performances	3	4	4	4	6	4
Audio content (2)	6	2	1	2	3	3
Specialized resources on rhetoric (3)	2	1	3	3	2	1
Specialized software	7	7	5	6	5	6
Social communities	4	6	7	5	4	5

Thus, according to the study of students' subjective opinion, the most effective in the development of rhetorical skills are electronic resources such as TED, speeches by prominent speakers of the past and present, audio courses on rhetoric and podcasts hosted on YouTube, as well as mobile applications to improve culture and speech techniques. The expert assessment generally coincides with the student's, but with some adjustments. According to experts in the field of rhetoric, the development of pre-service teachers' rhetorical skills is more conducive to viewing and listening to speeches of prominent speakers, rather than specialized resources on rhetoric.

V. CONCLUSION

The use of digital technologies for the development of pre-service teachers' rhetorical skills today should be considered a relevant and promising area of scientific and pedagogical research that meets current trends in the development of national training. Appropriate use of digital technologies to develop pre-service teachers' rhetorical skills contributes to their mastery of patterns of speech behavior in a variety of communicative situations and the

formation of a harmoniously developed personality capable of effective rhetorical activities within and outside the profession.

Among the digital technologies in the field of rhetoric for the development of pre-service teachers' rhetorical skills we have identified: electronic educational resources on rhetoric; specialized resources on rhetoric; specialized software in the field of rhetoric; social communities for online communication.

The lack of Internet resources on Ukrainian eloquence, as well as Internet resources adapted to the needs of students and teachers of higher education institutions wishing to develop a national rhetorical culture, has been confirmed.

According to the analysis of digital technologies in the field of rhetoric for the development of pre-service teachers' rhetorical skills, the most effective, according to students and experts in the field of rhetoric, is the use of video content, namely speeches of prominent speakers past and the present, and audio content.

We consider the development and use of specialized Internet resources in the educational process that will promote the development of pre-service teachers' rhetorical skills.

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