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Медиаобразовательная стратегия в подготовке будущих специалистов для цифровой экономики: опыт теории и региональной практики

Введение. Актуальность исследования обусловлена насущной потребностью медиаобразовательной подготовки студентов вузов, без которой не возможна их конкурентоспособность и профессиональная состоятельность в качестве будущих специалистов для современной цифровой экономики.

Цель исследования состоит в поиске путей совершенствования профессиональной подготовки специалистов, чья дальнейшая деятельность будет осуществляться в условиях цифровой экономики, за счет повышения уровня их медиаобразовательной культуры.

Методология исследования. Опытно-экспериментальной площадкой для проверки эффективности предлагаемой модели медиаобразовательной подготовки студентов стал ФГБОУ ВО «Елецкий государственный университет им. И.А. Бунина». Выборка составила 100 испытуемых (50 – контрольная и 50 – экспериментальная группы). Достоверность полученных эмпирических данных проверялась с помощью U-критерия Манна-Уитни.

Результаты исследования. Предложена авторская модель медиаобразовательного развития обучающихся, а также разработана на ее основе методика формирования соответствующих компетенций у студентов разных направлений подготовки и релевантные критериальные показатели сформированности медиакомпетентности.

Установлена положительная динамика в развитии мотивационно-ценностного (U=828,500 при уровне значимости p=0,002), информационно-коммуникативного (U=636,000 при уровне значимости p=0,000), аналитического (U=591,000 при уровне значимости p=0,000), креативно-деятельностного (U=713,000 при уровне значимости p=0,000) критериальных показателей.

Заключение. Модель медиаобразовательного развития студентов, разработанная и реализуемая в Елецком государственном университете им. И.А. Буниной, эффективна для различных гуманитарных направлений подготовки. Медиапродукты, созданные студентами при условии их погружения в информационно-коммуникативную среду вуза, внедрение медиаобразовательных технологий в профильные дисциплины и организация курсов повышения квалификации по медиаобразованию, свидетельствуют об уровне их медиакультурной грамотности, необходимом для будущей профессиональной деятельности в условиях цифровой экономики.

Ключевые слова: медиаобразование, медиакомпетентность, модель медиаобразовательного развития, медиаобразовательные технологии

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Media education strategy in training future professionals for the digital economy: the experience of theory and regional practice

Introduction. The relevance of the study is due to the urgent need for media education of the university students, without which their competitiveness and professional competence as future specialists for the modern digital economy is not possible.

The aim of the study is to find the ways to improve the specialists’ professional training, whose future activities will be carried out in the digital economy, by increasing the level of their media-educational culture.

Research Methodology. The experimental site for testing the effectiveness of the proposed model of students’ media-educational training was the Bunin Yelets State University. The sample consisted of 100 students (50 – a control group and 50 – an experimental group). The reliability of the empirical data obtained was tested with the Mann-Whitney U-test.

Results of the study. The author suggested a model of the students’ media-educational development. They also worked out on its basis a methodology for the formation of students’ relevant competencies of different areas of training and the relevant criteria indicators of the formation of media competence on its basis.

Positive dynamics in the development of the criterion indicators were found. They are the following: the motivational-value criterion (U=828,500 at the significance level of p=0,002), the information and communication one (U=636,000 at the significance level of p=0,000), the analytical one (U=591,000 at the significance level of p=0,000), the creative-activity one (U=713,000 at significance level of p=0,000).

Conclusion. The model of students’ media-educational development, worked out and implemented in Bunin Yelets State University is effective for training in various humanitarian fields. The media products created by the students under the condition of their immersion in the information and communication environment of the university testify to the level of their media-cultural literacy, necessary for future professional activities in the digital economy. The same regards to the implementation of media-educational technologies into the core disciplines and the organization of advanced training courses in media education.

Keywords: media education, media competence, the model of the development of media education, media education technologies

For Reference:
The digital economy, which is the reality of our days, imposes special requirements on the everyday life and the professional sphere of human beings. The modern homo mediatus [1] must have a creative and critical thinking, the ability to communicate and cooperate in the latest information space [2].

According to the national program «The Digital Economy of the Russian Federation», the share of the population with digital literacy should constantly increase and reach 40% of the total by 2024. The number of specialists retrained in digital economy competencies as a part of additional education should reach 1 million people [3].

UNESCO identified media education as a priority sphere of the cultural development in the 21st century. The experts in various fields of the scientific knowledge understand it as a process of the personal development on the basis and with the help of media communication. The result of it is the formation of a person capable of fully socializing in a digital society. This means that he or she must learn how to communicate properly with the media: to receive, evaluate critically and transmit the given information, to create his or her own media products, and to communicate using modern media technology.

Understanding the growing impact of multimedia technologies on the education at all levels and the need to find new methods and approaches to university training, it is safe to say that media literacy for students is of great importance. It helps to enhance the quality of their studies and their subsequent competitiveness in the labour market, forming their "individual readiness for continuous self-learning" [4, p. 185]. In our opinion, it is quite fair to consider media education as one of the platforms for the modernization of the whole system of the national education [5, p. 736-744].

At present, many countries around the world (Australia, Belgium, Canada, France, Great Britain, the USA, Finland, etc.) are introducing media education into the system of the secondary and higher educational institutions. In some places, it is integrated into the general education subjects. In Great Britain, for example, it is studied as a separate media discipline. At universities in Canada, the courses related to media information and communication technology are compulsory. A focus on a high level of media culture among the younger generation is also a characteristic of the US educational standards. Analyzing the international experience, it should be recognized that the educational policy of many countries is aimed at the development of media and information literacy of the younger generation [6]. The paramount importance of «critical thinking», «critical autonomy», the justification of which was given by L. Masterman [7], is topical nowadays in connection with the development of «new media» which do not change «the essence and importance of media literacy» in the modern world [6]. Moreover, it is an undeniable fact that the improvement of communication technologies should sharpen the need for media education in society, encourage the improvement of the forms and methods of education, build «intercultural perspectives» of their practical application [8]. From a state of «digital natives» [9] teenagers and young people should move confidently to computer literacy, the level of which modern foreign researchers, in particular, J. Zylka, W. Müller suggest determining with the help of questionnaires [10]. The European scientists admit that despite the existing
state programs on media education, aimed at the development of creative abilities of the young generation in the digital information environment, there is «destabilization of the traditional logic of learning» [9].

In Russia, media education is supported by the program «Information for everybody», developed by the specialists of the journalism department of Lomonosov Moscow State University. Since the beginning of the twenty-first century, media education centers with stable traditions and well-tested methods tool shape in the country. However, as V.V. Tulupov rightly noted, «in general, media-educational activities are carried out unsystematically and chaotically in our country» [11, p. 2]. In this situation of the expectation of important decisions on this problem from the state the regions first of all, higher educational institutions can take their initiative. «Thanks to which all the disparate – pedagogical, scientific, creative, and public forces will be united» [11, p. 2]. They will propose their own or use the existing developments that enable the practical introduction of media education into the professional training of the personnel of various profiles.

Significant efforts were made on this path. Some universities are implementing «media profile» programs for bachelors and masters, which are «a hierarchically organized structure based on training modules and different types of classes» [12, p. 184-189]. At the same time, media education is still an area of the constant debate, including terminological definitions.

All the above mentioned led to the formulation of a research problem, which is to find new, strategically important mechanisms for the media education development of future professionals in order to meet the conditions of the innovative digital economy.

Literature review

Training specialists for the new digital economy and, in general, preparing a person for life in a digital society is becoming the key task of modern education. The digital transformation of the university educational space provides great opportunities to improve the quality of education. At the same time, it requires changes in the methodological approaches to training organization; a search, the development and application of new technological solutions and tools. Online learning, which caused teachers' indignation just two years ago, now was replaced by a positive attitude, awareness of the need for flexible modernization of the educational process using the modern media resources [13, p. 271-300]. The researchers noted with a good reason "the organizational and functional changes in the educational environment of the Russian universities" are active due to the spread of the latest information and communication technologies [14, p. 191-221]. In particular, they note "the qualitative changes in the educational activity" of the student youth "in the non-standard conditions" of the digital space [15, p. 147].

The successful handling of information which flows both in the modern professional environment and in personal life implies that an individual has a formed critical consciousness.

The problem of the importance of students' digital literacy is touched upon in the article by E.V. Frolova and O.V. Rogach [16]. It is fairly noted that today neither the students themselves, nor the higher education system of the Russian Federation as a whole are focused on the formation of media competence [17]. On the other hand, many teachers feel increasingly the need to bring the students "to the position of a
logical, creative subject capable of processing, selecting and analyzing the information received efficiently" [18, p. 89].

In this context, the research of A. Fedorov and A. Levitskaya on the development of students' media literacy in the process of analyzing the impact mechanisms and the manipulative techniques of the media on the audience is interesting [19]. A particular attention should be paid to the theoretical media education model developed by the researchers, aimed at the effective development of students' ability confront to reasonably the deformed information contained in the media [20]. The model is considered on the example of anti-Russian Ukrainian Internet communication resources. It contains the blocks related to the technologies of the development of the personal abilities to analyze information, resist consciously false statements due to the anti-propaganda competence, the creative application of knowledge about media communication processes. In this regard, the possibilities of using media technologies in the process of young people's civic-patriotic education are of particular relevance [21, p. 107-112]. A particular attention is paid to the wide involvement of the visualization of information as the most sought-after component for its proper perception [22, p. 547-556].

The models of media education developed today in Russia and abroad can be summarized according to their purpose. They are the following:

- educational and informational models, focusing on the theory and history, the language of media culture, etc., based mainly on the cultural, aesthetic, semiotic and socio-cultural theories of media education;
- upbringing and ethical models, involving the consideration of moral, religious, philosophical issues related to the media, based on the ethical, religious, ideological, environmental, protectionist and other theories of media education;
- practical-utilitarian models, aiming at the practical study and the application of media technology, based on the theory of «consumption and satisfaction» and the practical theory of media education;
- aesthetic models, focusing primarily on the development of artistic taste and the analysis of the best works of media culture, appealing to the aesthetic/artistic and culturological theories of media education;
- socio-cultural models related to the socio-cultural development of a creative person in terms of the perception, imagination, visual memory, interpretation, analysis, independent, critical thinking in relation to media texts of all kinds and genres, etc. They are based on socio-cultural, cultural, semiotic, ethical theories of media education and critical thinking development [23, p. 52-86].

At the end of 2020 while working out the model of the students' media-educational development at Bunin Yelets State University, designed for two years of implementation, the authors thought about the needs of the media competence training of future specialists in different fields. It would be a factor of high competitiveness in the harsh conditions of the regional labor market [24].

During 2021, with the financial support of the Russian Fund of the Fundamental Research and the Administration of Lipetsk region in the framework of the research project «The theoretical and methodological support of students' media-educational development in the context of Lipetsk region involvement in training personnel for the digital economy»
the research was carried out. During this period the model of students' media-educational development of different training areas was tested [25; 26].

A model of students’ media education development

In justifying the model of students' media-educational development, the authors proceeded primarily from the fact that the list of key competencies of the digital economy includes creative and critical thinking, communication and cooperation, self-development under uncertainty, and the information and data management. In this respect, the general model of students' media-educational development implies:

- the creation of the necessary information and communication environment of the university;
- the introduction of media-education technologies in the core disciplines (a module developed by the participants of the educational relations);
- a compulsory completion of the continuing professional education (CPE) courses by students.

The cumulative implementation of these components allows the formation of the level of professional identity required in the modern conditions for future professionals. It is characterized by a sustainable media education training aimed at a continuous development.

The conceptual basis of the model: is the focus on media education technologies. It is determined by the cultural, historical and communicative specificity of a particular region; the integrative nature.

The objective: is develop a media-cultural and media-literate person who has the competence to use confidently the latest developments in communication and multimedia technologies, work with the information resource for students, create the content equally well for different media platforms. It is also necessary to be able to present themselves and work in the media space.

The tasks are: to develop a creative-activities component (the ability to create infographics, animations, slide shows, virtual tours, podcasts, vodcasts, longreads, media education projects and other media products). It is to develop important students' analytical skills to evaluate critically the individual media texts and media environment in general. For future media specialists it is vital to develop a practice-oriented component in them a (mastery of basic media education methods, the forms and technologies, the ability to apply them in their professional activities).

The competence to be formed: is closely connected with the result of the media-educational development of a specialist's personality during the period of higher education. Besides an additional professional competence related directly to media-educational training and creative activity of a future professional is formed. This is the ability to carry out media-educational activities aimed at oneself and others in the digital environment with regard to the specifics of the regional media landscape.

The pedagogical conditions for the implementation of the model. In developing the media-educational development model, the authors took into account the fact that one part of the students, both during their studies and in their future professional activities, is directly connected to the creation of media products. The other part is related to the media products
only as a user. Therefore, the media education development of the future journalists is focused on the formation of the skills for organizing independent media education activities. As a result, the graduates should develop an understanding of the significance and social responsibility entrusted to them. They must become media educators, to use the media in which they are to work as a fully qualified media-educational platform.

The students in other training profiles who do not have a direct need for professional use of digital technologies should develop media-educational competencies during their higher education studies, indicative of their digital literacy.

Upon graduation, all the students should be able to evaluate critically regional, national and global media space. They must and use the available resources to produce quality media products that can be used successfully in their professional work.

A significant role in the media-educational development of a future specialist is played by the information and communication space that shapes and develops him/her during the student years. At the level of the educational institution it is defined as a set of necessary pedagogical conditions that ensure a qualitative process of educational information interaction between students and a teacher on the basis of information and communication technologies.

An important component of the presented model is the Vocational Media Training Program which is due to the emergence to the need to respond adequately the requests of the potential employers. These were identified during the questionnaire survey conducted as part of the annual job fair «A career week at Bunin Yelets State University». The information received suggests that the representatives of companies and organizations in the region consider the media literacy as one of the key competencies of the specialists passing the competitive selection for employment. Thus, 87% (of 40 respondents) of the employers would like to see a document in the portfolio of the graduates confirming that they have media education training. While understanding the importance of media education in the context of the intensive development of information and communication technologies and convergent processes, which increase significantly the possibilities of creating, publishing and distributing special media content, the employers would also like to avoid additional material and time costs associated with the training or retraining of the employees.

For the future journalists, the program of Additional Professional Education (APE) envisages a variation of its own, and of an integrative nature, aimed at a higher «input» level of media training for the trainees. The course developers are the specialists from the departments of literature and journalism, foreign languages and the methods of teaching them, and mathematics and the methods of teaching it. The dialogue of philological and mathematical cultures in this case is fundamentally important. It orientates the students towards the complex interdisciplinary knowledge as a necessary condition for media education development in the professional sphere of journalism [27].

The program of APE «The Media Education in the Professional Environment», which is intended for the students of different training areas, is successfully implemented at Bunin Yelets State University for a number of years. The core modules of the course are the following:

1. Media education in Russia and abroad: history, the present day situation, prospects;
2. The synthesis of humanities and mathematics in the theory and practice of journalism;
3. Media education of the journalists – a laboratory for the creative development;
4. The media education activities of media.

In order to set the accents in each of the modules we offer, before the start of the course the students are given a questionnaire, which helps to determine the depth of their knowledge of the regional media space, their preferences as consumers of media products, their satisfaction with the quality and forms of presenting information on different platforms. In this way, the level of the students' professional and critical assessment of the media environment in the Lipetsk region can be established.

In the general education course, the participants analyze carefully the websites of editorial offices, editorial pages on social media, etc., to determine their own involvement in enhancing the media culture of the region's population transferred to an online format. The final work of the students is a media education project, which, if defended successfully, can be recommended for the practical implementation by the media center of the university.

The integration of media education technologies into the professional training process has an important practical and applied significance. In line with the modern approaches developed by the international scientific community they identified the following main methods, teaching methods and the forms of organizing the media education process. They are as follows: problem-based learning, a discussion; game techniques, trainings; a case method; a project method; brainstorming; a lecture-round table, a press conference, a debate organization, solving specific professional situational tasks; non-standard practical exercises. They can be in such a form as an auction, a defense of the research paper with feedback, «a court case», interviews, «professional fights». The use of modern information technologies and interactive forms of training help to form the students' skills for creating high-quality media products and self-presentation. The use of modern digital tools and end-to-end technologies (online board Miro, Learnis (creating web quests), Learning Apps. org (for formative assessment), Google-forms, Quizlet (creating various tasks), Kahoot! (for selecting and creating tasks), X-Mindzen (for organizing material), Genially (for preparing presentations, etc.) can also be referred to the main methods of the media education.

In our opinion, the media technologies are organically integrated into the content of the main educational programs. Due to its specific nature, the discipline of «A Foreign Language», which is studied by the students of all fields of study, is open to the integration with media education like no other subject. The range is unusually wide here. It is from the simple use of media content as supplementary material to teaching free professional communication in a foreign language on its basis. Various newspaper and magazine publications, videos, radio programs, etc. can serve as a source of information on the culture of the target language and can therefore intensify the learning process by acting as an active educational tool. The contents of media and foreign language education are organically interconnected and have much in common. They are based on the idea of communication, aiming to form the ability to make one's own judgements based on the information received, to interpret and create messages. This becomes the basis for their integration in order to build the media competence of the secondary language learner.

Based on the theoretical analysis and practical experience, we believe that the media-educational development of the future professionals by means of a foreign language should include some elements. They are the following:
• communicative attitude;
• meaningful content;
• an organizational component (forms, methods, techniques, means of shaping the media competence of a secondary linguistic personality);
• reflection.

In determining the ways of forming media competence of a secondary linguistic personality in the process of teaching a foreign language at the university, we consider it possible to turn to the video format actively. It may be provided, for example, by the recordings of the speeches of cultural figures, literature, first of all, as the exemplary speakers of the language under study. Within the framework of the text-centric approach the sequence of work with video materials coincides in general with the technology of work on a text in any format (print, audio, video). It also includes a pretext stage of anticipation, a text stage of control, the formation or the improvement of the corresponding skill and a post-text stage of reproduction. The novelty in this case is ensured by the actual way of presenting the information.

When working with the podcasts, a preliminary briefing for the students on the specifics of using technical and multimedia resources of the Internet is necessary. A final discussion must be prepared and they have to record their own video material in the language under study. While the first stages are aimed at shaping media competence, it is the last stage that is more focused on its creative development.

The indicators given by J. Potter [28] for each stage are used as criteria for evaluating the productivity of media texts in the video format.

For the preview stage, the criterion of highlighting the main meaning of the media text is applied. For the viewing stage, the following criteria are taken:
• the analysis: identifying the main elements of a media text;
• comparison: identifying the similar and unique pieces of media text.

The post-inspection stage is assessed according to the following indicators:
• an understanding of the essence of a media text or its fragment;
• judgement based on a comparison according to a certain criterion;
• abstracting: the ability to produce a concise, clear and accurate description of a media text;
• generalization;
• deduction: using general principles to explain individual pieces of information;
• induction: deriving general principles from the observation of individual phenomena;
• synthesis: the ability to reassemble the elements into a new structure.

In the process of learning a foreign language, the students are expected to create their own media products. Thus, the students were asked to develop podcast on the topic «Yelets in the fate of I.A. Bunin». The communicative approach presupposed a constant dialogue interaction between the members of the working micro groups. The content was provided by the media text, which was accompanied by a video. The organisational component included the work on the creation of podcasts with a sequence of steps:

1. Watching the training material «I want to make videos. The lessons for Beginners» (https://www.youtube.com/watch?v=no6ePJUZPNQ&list=PL9ryk8yQ2t0MTrYpyisVtQ5fzgTnzayMY&index=4).
2. An introduction to Movie Maker program for creating/editing videos with a basic set of operations. It can be used for splitting a video into parts, making a slideshow based on the images. A soundtrack can be added to an existing recording.

3. The preparation of podcast scripts «Yelets in the fate of I.A. Bunin». The students had to analyze the available historical and biographical sources. They chose the material for writing the scripts, thought about and discussed the forms of its presentation, place and time of shooting. The allocated the roles, shot the material, edited it. The text could be dubbed in any foreign language.

The reflection involved an open discussion of the creative outputs: the content of the media products and the process of producing them.

The proposed model of the integration of a foreign language and media education is based on the use of the relevant Internet resources. The peculiarity of the developed media product consists in the predominance of visual information. The text as such can be small in volume, but literate from the foreign language point of view. The text visualization becomes an indicator of students' ability to work with the multimedia possibilities of the Internet, to create their information product so that it is relevant, interesting and rich in both form and content.

Creating podcasts as one of the most sought-after media products of journalism 2.0 develops a creative thinking and information literacy. Moreover, the very process of working on them elicits a positive response from the students, as such content «triggers» at the level of various social networks, messengers and is widespread among young people.

For five years (since 2016), the content of the English classes for non-language students at Bunin Yelets State University includes the elements of original media content provided by the TED Talks (https://www.ted.com/talks) platform (TED). This partly solves the problem of immersing the students directly in the language environment, to get them closer to the cultural realities of the target language countries and to hear the modern live English speech.

The main advantages of using such a media platform are as follows:

1) students have an opportunity to get acquainted with the topical content of different problematic and thematic orientation. Working with the presented materials increases the motivation of knowledge related to the current issues of our time; critical evaluation of the «incoming» texts; the interpretation and expression of their own judgement [29];

2) the resource's media content is a new format that combines the features of stand-up journalism, the lectures traditionally given at the universities, and the presentations used during conferences;

3) TED performances allow you to see how successful communication is built and what skills enable it, which is a common task in the integration of a foreign language and media education.

Working with the TED Talks platform – is about incorporating media education technologies based on the latest developments in the information and communication technology into the learning process. It should be noted that a video text has a wider range of possibilities for presenting the material. Its involvement in the classroom contributes to the students' emotional immersion into the topic discussed through visual perception of the speaker and the place of action. The students are introduced to a certain situational communication, to the line of behavior in the process of its implementation.
A three-stage class structure is suggested. In the pre-viewing stage, the students are asked to guess from the title of the presentation what the issue is and how the speaker will behave. This is an opportunity to compare the points of view based on the personal information and communication experience. While viewing the material, the students are required to understand the main content, write down the main ideas, and record the familiar vocabulary. After watching the video, they start discussing and analyzing critically what they saw, establishing cross-cultural similarities and differences.

Materials and methods of research

In order to evaluate the results of the study, the experimental work was carried out on the basis of Bunin Yelets State University.

The sample of the subjects consisted of 100 students from different fields of study: «Pedagogical Education», «Philology», «Journalism», «Vocational Education» and «Linguistics». Half of them (50 people) were trained according to the traditional route (a control group). The other half (50 people) were trained according to the trajectory of media-educational development (an experimental group).

According to the research hypothesis, the process of media competence development and the formation of media literacy and media culture will be much more effective if the students are guided along the trajectory of media educational development from the first stages of the study at the university. It is necessary to immerse them in the information and communication environment of the university, introduce media educational technologies in the core disciplines and organize advanced courses for students at the level of Additional Professional Education in media education. All the stages should be logically aligned and interconnected, which will ensure the targeted the formation of the required media-educational competence.

In determining the criterion the indicators and levels of media competence among the students in the experimental and control groups, we were guided by the presence or absence of the knowledge, skills and abilities that would allow them to demonstrate their media literacy and media culture in media education activities. The selection of these criteria indicators was based on the indicators of audience media literacy development described in A.V. Fedorov's model [30]. Thus, in our opinion, it would be advisable to include the following criterion indicators of media competence of a specialist:

- motivation and value – criterion indicator is the motive for media education (awareness of the essence and importance of media education, a desire to be engaged in media education, to improve one's media culture, a desire to improve oneself in the moral and aesthetic areas and to build media education paths);
- information and communication one (knowledge of the characteristics of mass information and the specifics of the mass communication process, basic concepts, a theory and history of media education, stages of the development and trends in media culture, pedagogical foundations of media education activities, the ability to perceive contemporary media texts);
- analytical criterion indicator (the ability to interpret media culture, media texts and evaluate critically the information products and the media environment in one's region);
• creative-activity one (the ability to create and distribute one's own media products and to use them successfully in media education activities).

For each of the four criteria indicators of media competence, different levels of the development were identified – high, medium and low. It should be noted that this division is very tentative, because if one indicator is high (e.g. creative-activity, which is based on creativity), there might be a medium or even a low value for another (e.g. information and communication or motivational-moral). However, it should be noted that a low level of media culture or a lack of critical analysis skills makes it impossible to become media literate at all.

Table 1
The description of the levels of the motivational-value criterion indicator of the specialist’s media competence

<table>
<thead>
<tr>
<th>The level of the criterion indicator</th>
<th>The content and qualitative content of the criterion indicator</th>
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| **High**                           | - a wide range of intellectual, creative, moral, ethical and aesthetic motives for media education activities;  
- an understanding of the essence and significance of media education at the present stage of social development;  
- a desire to engage systematically in media education activities and to improve their media culture;  
- the ability to plan and improve their media education activities. |
| **Medium**                          | - the presence of a set of intellectual, creative, moral, ethical and aesthetic motives for media education activities with a dominant entertainment orientation;  
- defining the importance of media education at the present stage of social development;  
- willingness to engage in media education activities, to improve their media culture as needed (on demand);  
- the desire to plan and improve their media education activities. |
| **Low**                             | - a narrow range of intellectual, creative, moral, ethical and aesthetic motives for media education activities;  
- an orientation solely towards the entertainment nature of the activity;  
- a misunderstanding of media education in the context of convergence and digitalization;  
- a reluctance to be engaged in self-development and self-education and to improve their media culture;  
- a lack of desire to be engaged in media education for audiences, a lack of understanding of the importance of media education as such. |

Table 2
The description of the levels of the information and communication criterion indicator of the specialist’s media competence

<table>
<thead>
<tr>
<th>The level of the criterion indicator</th>
<th>The content and qualitative content of the criterion indicator</th>
</tr>
</thead>
</table>
| **High**                           | - an understanding of the role of mass information, media influences and the specifics of the mass communication process in the digital society;  
- knowledge of basic terms, theory and history of media culture and media education;  
- a clear understanding of the pedagogical beginning of media education;  
- an understanding of the importance of the work of a media educator;  
- the ability to comprehend the contemporary media text;  
- the daily interaction with modern media products (including media education products). |
| **Medium**                          | - a relative understanding of the role of mass information, media influences and the specifics of the mass communication process in the digital society;  
- knowledge of some basic terms, key points in the theory and history of media culture and media education;  
- having a general understanding of media education as a pedagogical activity;  
- the ability to recognize and understand the contemporary media text;  
- the interaction with modern media products (including media education products) several times a week. |
- minimal understanding of the role of mass information, media influences and the specifics of the mass communication process in the digital society;
- little or no knowledge of some basic terms, key points in the theory and history of media culture and media education;
- a general overview of the activities of a modern media educator;
- the ability to recognize and understand the contemporary media text;
- the interaction with modern media products (including the media education products) several times a month.

### Table 3

<table>
<thead>
<tr>
<th>The level of the criterion indicator</th>
<th>The content and qualitative content of the criterion indicator</th>
</tr>
</thead>
</table>
| **High**                             | - the ability to work in an information environment to achieve learning and research objectives (working with information);  
- knowledge of the media environment in their region and the ability to use this knowledge in media education activities;  
- the ability to interpret the works of media culture;  
- the ability to analyze the contemporary media texts on the basis of the media perception skills;  
- have the skills to analyze the contemporary media products in a qualitative manner;  
- a willingness to criticize constructively and defend one’s own position. |
| **Medium**                            | - the ability to work in an information environment to achieve learning objectives (working with information);  
- an understanding of the media environment in their region;  
- the ability to interpret media culture based on the fragmented knowledge and general ideas;  
- the ability to analyze the individual fragments of a media text, to interpret the logic of the plot and the key positions of the text;  
- having rudimentary skills in analyzing contemporary media products;  
- a weakly expressed own position, insecurity of own arguments |
| **Low**                              | - ignorance or misunderstanding of the language of media;  
- lack of a clear understanding of the regional media space;  
- weak or lacking intellectual skills in interpreting (primitive interpretation) the contemporary media texts or media products;  
- the inability to think logically and assess critically;  
- a weakly expressed own position or a lack thereof. |

### Table 4

<table>
<thead>
<tr>
<th>The level of the criterion indicator</th>
<th>The content and qualitative content of the criterion indicator</th>
</tr>
</thead>
</table>
| **High**                             | - the ability to create and distribute media texts of different types and genre, one’s media products;  
- a presence of the expressed creative abilities in different areas of media-educational activities |
| **Medium**                            | - the ability to create media texts of different types and genres, media products and distribute them with the help of teachers and media educators’ advice;  
- a presence of the creative abilities manifested in certain types media-educational activities. |
| **Low**                              | - a lack of the practical skills in creating media texts or media products or a lack of desire to create and distribute them;  
- a weak manifestation of the creative abilities in certain types of media-educational activities and a lack of desire to think and act creatively. |

In identifying the dynamics of the development of each of the criteria indicators, we used tests to identify the required knowledge in the field of media education, questionnaires, a system of tests, creative tasks and observation. The qualitative indicators were analyzed by a simple comparison, while the quantitative indicators were the main argument in calculating the research indicators. The experimental activities were carried out over two years.
The presented model of media-educational development of the future specialists showed its effectiveness in the course of the experimental research. The developed criterial indicators of the level of media competence made it possible to assess the degree of its formation at the control stage of the experiment.

Tables 5 and 6 show the results of the diagnostics of media competence criterion indicators.

The data obtained allow us to draw conclusions about the positive dynamics in the development of students' media competence in the experimental group for each criterion. The mean value and the standard deviation of the studied parameters are shown in Table 7. The data in Table 7 demonstrate clearly that the experimental group after the experimental work has the highest indicators for all the studied parameters. The results obtained in the experimental group are higher than the results obtained in the control group.

In turn, the changes in the control group were not so significant although some positive dynamics of the studied parameters at the control stage of the research is defined.

The use of the mathematical statistics proves that the control and experimental group participants have significantly different indicators. The indicators presented in Table 8-11 also show that the examinees from the experimental group have significantly higher indicators after the experimental work than before its implementation.

### Table 5

<table>
<thead>
<tr>
<th>The criteria of the media competence</th>
<th>The indicators of the media competence formation</th>
<th>low</th>
<th>average</th>
<th>high</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CG</td>
<td>EG</td>
<td>CG</td>
<td>EG</td>
</tr>
<tr>
<td>Motivational and value</td>
<td>(25) 50%</td>
<td>(23) 46%</td>
<td>(21) 42%</td>
<td>(24) 48%</td>
</tr>
<tr>
<td>Information and communication</td>
<td>(36) 72%</td>
<td>(33) 66%</td>
<td>(8) 16%</td>
<td>(10) 20%</td>
</tr>
<tr>
<td>Analytical</td>
<td>(31) 62%</td>
<td>(15) 30%</td>
<td>(15) 30%</td>
<td>(15) 30%</td>
</tr>
<tr>
<td>Creative/Activative</td>
<td>(27) 54%</td>
<td>(25) 50%</td>
<td>(16) 32%</td>
<td>(16) 32%</td>
</tr>
</tbody>
</table>

### Table 6

<table>
<thead>
<tr>
<th>The criteria of the media competence</th>
<th>The indicators of media competence formation</th>
<th>low</th>
<th>average</th>
<th>high</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CG</td>
<td>EG</td>
<td>CG</td>
<td>EG</td>
</tr>
<tr>
<td>Motivational and value</td>
<td>(21) 42%</td>
<td>(13) 26%</td>
<td>(25) 50%</td>
<td>(19) 38%</td>
</tr>
<tr>
<td>Information and communication</td>
<td>(35) 70%</td>
<td>(8) 16%</td>
<td>(9) 18%</td>
<td>(26) 52%</td>
</tr>
<tr>
<td>Analytical</td>
<td>(28) 56%</td>
<td>(12) 24%</td>
<td>(15) 30%</td>
<td>(14) 28%</td>
</tr>
<tr>
<td>Creative/Activative</td>
<td>(25) 50%</td>
<td>(11) 22%</td>
<td>(18) 36%</td>
<td>(10) 20%</td>
</tr>
</tbody>
</table>
Table 7

The mean value and the standard deviation of the studied parameters

<table>
<thead>
<tr>
<th>A parameter</th>
<th>CG Before the experimental work (EW)</th>
<th>After the EW</th>
<th>EG Before EW</th>
<th>After the EW</th>
</tr>
</thead>
<tbody>
<tr>
<td>The level of the motivation-value criterion indicator</td>
<td>0,58±0,64</td>
<td>0,67±0,62</td>
<td>0,60±0,61</td>
<td>1,10±0,78</td>
</tr>
<tr>
<td>The level of the information and communication criterion indicator</td>
<td>0,40±0,69</td>
<td>0,42±0,70</td>
<td>0,48±0,73</td>
<td>1,16±0,68</td>
</tr>
<tr>
<td>The level of the analytical criterion indicator</td>
<td>0,46±0,64</td>
<td>0,58±0,73</td>
<td>0,42±0,61</td>
<td>1,24±0,82</td>
</tr>
<tr>
<td>The level of the creative-activity criterion indicator</td>
<td>0,60±0,72</td>
<td>0,64±0,72</td>
<td>0,68±0,76</td>
<td>1,36±0,82</td>
</tr>
</tbody>
</table>

For the purpose of data processing, the quantitative and qualitative analysis of the study results, the nonparametric statistical Mann-Whitney U-test was used to compare the severity of the indicators in two unrelated samples. This method determines whether the area of the overlap between the two series (the ranked series of the parameter values in the first sample and the same in the second sample) is small enough. The smaller the value, the more likely it is that the differences between the values of the parameter in the samples are valid.

Table 8

The comparison of the experimental and control groups before the experimental work

<table>
<thead>
<tr>
<th>A parameter</th>
<th>Mann-Whitney U-test</th>
<th>Asymptotic significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The level of the motivation-value criterion indicator</td>
<td>1193,500</td>
<td>0,663</td>
</tr>
<tr>
<td>The level of the information and communication criterion indicator</td>
<td>1177,000</td>
<td>0,537</td>
</tr>
<tr>
<td>The level of the analytical criterion indicator</td>
<td>1217,500</td>
<td>0,792</td>
</tr>
<tr>
<td>The level of the creative-activity criterion indicator</td>
<td>1184,000</td>
<td>0,616</td>
</tr>
</tbody>
</table>

Table 9

The comparison of the experimental and control groups after the experimental work

<table>
<thead>
<tr>
<th>A parameter</th>
<th>Mann-Whitney U-test</th>
<th>Asymptotic significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The level of the motivation-value criterion indicator</td>
<td>863,000</td>
<td>0,004</td>
</tr>
<tr>
<td>The level of the information and communication criterion indicator</td>
<td>581,000</td>
<td>0,000</td>
</tr>
<tr>
<td>The level of the analytical criterion indicator</td>
<td>719,000</td>
<td>0,000</td>
</tr>
<tr>
<td>The level of the creative-activity criterion indicator</td>
<td>674,000</td>
<td>0,000</td>
</tr>
</tbody>
</table>

The comparison of the results of the experimental and control groups before the experimental work showed that there were no significant differences, as evidenced by the data in Table 8.
At the same time after the experimental work there is a positive dynamics of the studied indicators in the experimental group. The differences reach the level of significance, as can be seen from the data in Table 9.

Then the analysis of the results in the control group before and after the experimental work was carried out. It showed clearly that the differences of the studied parameters do not reach the level of significance (Table 10).

<table>
<thead>
<tr>
<th>A parameter</th>
<th>Mann-Whitney U-test</th>
<th>Asymptotic significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The level of the motivation-value criterion indicator</td>
<td>1158,000</td>
<td>0,480</td>
</tr>
<tr>
<td>The level of the information and communication criterion indicator</td>
<td>1228,000</td>
<td>0,849</td>
</tr>
<tr>
<td>The level of the analytical criterion indicator</td>
<td>1152,500</td>
<td>0,443</td>
</tr>
<tr>
<td>The level of the creative-activity criterion indicator</td>
<td>1207,000</td>
<td>0,743</td>
</tr>
</tbody>
</table>

At the same time, the analysis of the results of the experimental group demonstrates reliable differences in the results of the studied parameters before and after the experimental work (Table 11). It is revealed that the results after the experimental work is significantly higher at the control stage of the study than at the ascertaining stage.

<table>
<thead>
<tr>
<th>A parameter</th>
<th>Mann-Whitney U-test</th>
<th>Asymptotic significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The level of the motivation-value criterion indicator</td>
<td>828,500</td>
<td>0,002</td>
</tr>
<tr>
<td>The level of the information and communication criterion indicator</td>
<td>636,000</td>
<td>0,000</td>
</tr>
<tr>
<td>The level of the analytical criterion indicator</td>
<td>591,000</td>
<td>0,000</td>
</tr>
<tr>
<td>The level of the creative-activity criterion indicator</td>
<td>713,000</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Thus, it was confirmed that the hypothesis was valid.

Discussion of results

In the last decade, media education asserted itself increasingly as the most important area of social development. The researchers argue convincingly that «it is necessary to suggest such forms and methods of specialist training that would correspond to the actual needs of the economy». Today university students and employers «as the main subject accepting young specialists into the real economic environment – are primarily interested in the competences mastered practically and with an understanding of the new social structure of society as a whole» [31, p. 1214-1215]. Media literacy should be recognized as one of the most important competences for a modern specialist, which determines his/her professional
The innovative model of students' media-educational development proposed by the authors includes the following components: a rich information and communication environment of a university with the appropriate technical content, media technologies embedded in the mandatory disciplines, and a professional development program at the level of APE. The model has a clear practical orientation, while focusing the students not only on acquiring media knowledge and skills, but also on their continuous development. The content of the model is based on the programs of the Russian module of media education. In solidarity with its developers, who envisioned their use as «independent of each other "bricks"» [32, p. 13], the authors introduced their own «links» of connection to create a coherent structure. The authors are convinced that the models of student youth's media-educational development of can be different depending on the specifics of the local information and communication environment. The results obtained in the process of the approbation of the model showed the dynamics of increasing the level of the formation of the put forward criteria. It indicates the achievement of the goal. The study suggests that the strategic direction of training in the system of modern higher education should be the formation of the future professionals’ media competence on the basis of similar models.

REFERENCES

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