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## Psychological and Pedagogical Issues in Developing Media Competence in Professional Training of Education Managers

### Abstract

**Introduction.** The study addresses media competence as a key component of professional preparedness for future education managers in the context of digital transformation of education, responding to the growing demand for professionals capable of critically interpreting, ethically engaging with, and productively generating media content within digital learning environments. **Methodology and Methods.** The research employs a mixed-methods design incorporating an author-developed diagnostic questionnaire for self-assessment of media competence, along with observation, polling, and testing methods. The pedagogical impact of an online course titled “Digital Etiquette” was examined through pre- and post-intervention comparative analysis among control and experimental groups of master’s degree students to determine the effectiveness of targeted pedagogical interventions. **Results.** A structural model of media competence was conceptualized and empirically validated, integrating both media-specific and soft skills including critical thinking, motivation, creativity, communicative reflection, and operational readiness. The study demonstrated the effectiveness of targeted pedagogical interventions in developing media competence through systematic comparative analysis between experimental and control groups, revealing significant improvements in participants’ media competence levels following the online course intervention. **Scientific novelty.** The research contributes to the development and implementation of an integrated psychological-and-pedagogical programme for cultivating media competence through the fusion of digital tools and reflexive learning strategies, establishing a comprehensive theoretical framework that bridges media-specific competencies with essential soft skills for educational leadership. **Practical significance.** The study provides a validated framework for training education managers capable of leading ethically responsible and media-savvy educational processes in the digital age, offering evidence-based approaches and practical tools for developing media competence in future educational leaders within contemporary digital learning environments.

**Keywords:** media competence, education manager, digital learning environment, critical thinking, soft skills, digital awareness, media pedagogy.

**Introduction.** In contemporary educational discourse, media competence is increasingly recognized as a critical dimension of professional identity, shaping not only the effectiveness of communication but also the capacity for social participation and cultural integration in the digital age. For specialists in the field of education management, this competence transcends technical proficiency and emerges as a tool for navigating a multicultural, information-rich environment, fostering personal development, and achieving professional self-realization.

Despite growing interest in media education, the role and structure of media competence specifically in the professional profile of future education managers remain underrepresented in scholarly literature. While existing studies underscore the importance of developing digital and critical thinking skills, there is a notable gap in systematizing the pedagogical conditions and components that contribute to the formation of media competence in this specific context.

Media competence involves not only the cognitive ability to interpret media texts but also

the willingness to engage thoughtfully with their content (Baran, 2002). This includes discerning information from emotional appeals, critically evaluating the influence of media on public perception, and recognizing the underlying structures and conventions of media messages.

This study seeks to explore how media competence is formed among future education managers within digital learning environments. The research aims to conceptualize and empirically validate a comprehensive model that integrates both the structural and functional dimensions of media competence, while also offering a contextually grounded definition that reflects the realities of online education. The formation of media competence in the educational context has been actively explored in Kazakhstani pedagogical research over the past decade. Scholars have emphasized the need to integrate media-related skills and knowledge into teacher training (Iskakov, 2013; Kuanisheva, 2021; Tazhenova et al., 2019; Turgunbayeva et al., 2019). These studies conceptualize media competence as a multidimensional construct, comprising not only technical proficiency but also the ability to critically engage with media content, interpret information, and apply media technologies in pedagogical practice. According to a systemic approach, media competence involves the integration of theoretical understanding with applied skills within the broader framework of professional pedagogical competency.

Media competence has been highlighted as a core component of modern teaching expertise, enabling educators to respond effectively to the evolving informational demands of students (Iskakov, 2013). According to Iskakov, teachers increasingly act as education managers and must possess a robust set of media-related competencies to navigate and lead in digital environments. Contemporary trends in teacher education emphasize the necessity of professional self-actualization within open educational ecosystems, where understanding and leveraging media technologies are essential for instructional innovation and learner engagement. In broader theoretical frameworks, media competence is viewed through multiple layers:

a narrow perspective that includes specific knowledge of media structures and multicultural content; a general dimension involving adaptive behavior within media environments; and the concept of “media immunity” - the capacity to preserve personal identity amidst rapid media evolution (Sharikov, 1990) this notion to include cross-cultural awareness and resilience in digital spaces (Nurgalieva, 2019) extends.

Media competence as a synthesis of critical thinking, comprehension of mass communication processes, and the responsible production and interpretation of media texts (Silverblatt, 2002). In this framework, the ability to make informed and autonomous judgments is central to effective media engagement. This perspective is supported by empirical validation studies conducted by Lin, Li, Deng, and Lee (2020), who link media literacy with broader cognitive and reflective capabilities. Media competence has also been introduced as a subdomain of communicative competence, structured around four functional areas: media knowledge, usage, design, and reflection (Baacke, 2001). This model highlights the operational and creative dimensions of media interaction within both educational and professional contexts.

Fedorov (2007) offers a comprehensive pedagogical model that defines media competence through interconnected indicators: motivational readiness, informational awareness, interpretive judgment, and creative action. His framework emphasizes the developmental aspect of media literacy as a socially situated competence that facilitates critical consumption, production, and contextual analysis of media messages. This position aligns with Fateeva's (2007) argument that media competence evolves through informal learning and experiential interaction with mass media. Such a view is supported by recent studies (Kadirbayeva & Amirbekuly, 2020; Kuatbekov & Tapalova, 2021), which frame media literacy as a communicative skill set acquired through ongoing engagement in digital and informational environments. Research by Goncharova (2013), Isaeva (2003), and Kuatbekov and Tapalova (2021) positions media competence as an applied professional attribute. These scholars emphasize that media

competence includes not only the ability to retrieve and process media content, but also the capacity to generate and disseminate original media materials-skills that are essential for educators operating within a digitally mediated academic environment.

In the framework of this research, the authors propose an original model that conceptualizes the structural and functional dimensions of media competence specific to future education managers. This model identifies four interrelated core competencies essential for effective professional activity in a digital learning environment:

1. Digital Literacy. This refers to the mastery of technological tools and the ability to operate confidently within a digital space. It includes competencies necessary for information retrieval, navigation of digital platforms, and effective use of media resources in pedagogical contexts.

2. Content Interpretation. This component involves the critical analysis and deconstruction of media content. It includes the capacity to evaluate the political, economic, and social dimensions of media messages, compare and synthesize information from diverse sources, and distinguish between subjective emotional responses and objective analytical judgment.

3. Content Generation. This competence focuses on the ability to construct and disseminate media messages thoughtfully and purposefully. It includes written and visual communication skills, the ability to participate meaningfully in digital discourse, and the creation of content that demonstrates critical reflection and responsible engagement with public opinion.

4. Digital Awareness. This dimension reflects the ethical, reflective, and socially responsible use of media. It encompasses the awareness of one's digital footprint, respect for diversity and privacy, and understanding of legal norms governing media interactions. It also implies the ability to anticipate and evaluate the broader social impact of media outputs.

To further clarify the proposed framework, it is important to elaborate on the key components that comprise the internal structure of media

competence for future education managers. Media technology serves as the instrumental basis enabling the creation, dissemination, and reception of media content. It encompasses digital tools, platforms, and systems that have transformed how individuals interact with information. The proliferation of streaming services such as Netflix, Amazon Prime Video, Spotify, and YouTube has redefined traditional patterns of media consumption by offering on-demand access to vast repositories of audiovisual content tailored to individual preferences (Bulger & Davison, 2018). In parallel, emerging technologies such as virtual reality (VR) and augmented reality (AR) are reshaping user experience by facilitating immersive interaction in educational, training, and entertainment contexts. These tools enhance cognitive and affective engagement, expanding the pedagogical possibilities in digital learning environments (Simons, Ketelhut, & Nelson, 2017; Smyrnova-Trybulska, 2019; Simonov, 1999).

Additionally, social media platforms have become indispensable components of modern media ecosystems. Their interactive nature enables users not only to consume content but also to produce, share, and discuss it in real time. These platforms function as dynamic spaces for collaborative learning, professional networking, and public discourse, making digital fluency and ethical participation essential for education professionals (Tomeczyk, 2020). In this context, understanding media technology is not limited to technical operation but includes a reflective awareness of its influence on pedagogical practices, information dissemination, and the social construction of knowledge.

Media resources represent the diverse forms and modalities of content designed for communication, learning, and engagement in digital and hybrid environments. These resources include a broad spectrum of information carriers:

- media texts, such as academic articles, books, newspapers, and magazines, which form the core of written communication;
- visual media, including photographs, infographics, illustrations, and schematic diagrams

that enhance information accessibility through visualization;

- audio formats, such as music, podcasts, radio broadcasts, and sound effects, which provide auditory modes of information perception and emotional resonance (Drevitskaya, 2018);

- video materials, encompassing films, documentaries, television programs, and digital video content integrating motion, sound, and visual effects to create immersive narratives (Miliutina, 2020).

Social networks, including platforms like Facebook, Twitter, Instagram, YouTube, and TikTok, which serve as dynamic spaces for the co-creation, sharing, and circulation of multimedia content (Kuatbekov & Ananishnev, 2021; Kunacova & Primbetova, 2020).

Collectively, these media resources constitute a digital ecosystem that supports the exchange of ideas, storytelling, education, and social interaction. In this context, media information refers to the data and content disseminated through various mass communication channels. This includes everything from news reports and visual imagery to video footage and social media posts. According to Nikou and Aavakare (2021), media information plays a vital role in fostering transparency, contextual understanding, and authenticity. It empowers users to critically assess the credibility of sources and make informed, evidence-based decisions. In the era of digital transformation, the ability to navigate this media landscape has become imperative for future education managers. Mastery of digital tools is no longer optional; it is essential for performing core professional functions in teaching, administration, and research. As educational systems adopt increasingly sophisticated technologies, the demand for digital and media competence grows accordingly.

Integrating technology into the learning process not only enhances student engagement but also fosters the development of transferable skills in digital communication, problem-solving, and collaborative interaction. Through structured exposure to online platforms and guided media practices, learners are better equipped to manage digital risks and strengthen their digital resilience. From a pedagogical perspective, media

competence is not merely a set of operational abilities - it is a dynamic process underpinned by critical thinking, enabling individuals to reflectively interpret, analyze, and respond to media messages. This conceptualization aligns with the broader educational imperative to cultivate discerning, ethically grounded, and digitally literate professionals capable of navigating complex information environments. Among the foundational soft skills that underpin media competence, critical thinking occupies a central place. It refers to the cognitive ability to systematically evaluate information based on logic, relevance, and empirical validity, rather than emotional impression or cognitive bias. In the context of media consumption, critical thinking involves assessing the credibility of sources, distinguishing between evidence-based claims and speculation, and recognizing manipulative or ideologically charged content. For future education managers, this competence is vital for navigating the complexities of the digital information landscape, where misinformation and fragmented narratives are pervasive.

As digital technologies increasingly shape the educational process, critical thinking enables future professionals to make reasoned decisions, respond to informational ambiguity, and foster a culture of informed inquiry within their institutions. Another equally important soft skill is communicative reflection, which entails a deliberate process of self-examination and dialogic awareness in mediated interactions. It encompasses the ability to express one's thoughts and emotions with clarity, respond empathetically to others, and adapt communicative strategies based on feedback and audience perception. In digital learning environments, where interaction often occurs asynchronously and across diverse cultural contexts, communicative reflection empowers future education managers to maintain coherence, ethical awareness, and relevance in their messaging. It also enhances their capacity to interpret the communicative intent of others, anticipate misunderstandings, and adjust discourse to improve clarity, engagement, and inclusivity.



A media-competent education manager who possesses strong communicative reflection skills is better equipped to critically evaluate media content, identify implicit bias or distortion, and make informed pedagogical choices about media integration. These choices may include determining the suitability of media materials for different learner groups, designing inclusive digital content, or navigating issues related to online etiquette and interactional ethics. Moreover, ethical awareness represents an integral aspect of these competencies. It involves understanding the legal and moral implications of media use, including concerns around privacy, intellectual property, online security, and responsible digital behavior. Education managers must be prepared to address ethical dilemmas that arise in digital pedagogy, guiding students and staff toward media practices that are respectful, transparent, and socially responsible.

An essential component of the media competence framework is operational readiness, which reflects the practical ability of future education managers to interact fluently with diverse media tools and digital platforms. This competence synthesizes foundational knowledge in digital and media literacy with applied technical skills, enabling professionals to navigate digital ecosystems confidently and productively. It includes familiarity with multimedia technologies, software applications, content management systems, and communication tools that support educational and administrative functions. Operational readiness is not merely technical aptitude; it reflects an adaptive mindset and responsiveness to technological innovation. Education managers with a high level of operational readiness demonstrate the capacity to integrate new media tools into educational processes, troubleshoot digital challenges, and scale up digital initiatives efficiently. Such adaptability is particularly critical in the context of the rapid evolution of educational technology.

Equally important is creative activity, which enriches media competence by fostering innovation and flexible problem-solving. In a dynamic media environment, creativity allows

future education managers to design engaging content, experiment with new formats, and develop original pedagogical solutions. It supports divergent thinking and facilitates the transformation of conventional approaches to teaching, leadership, and digital interaction. As noted by Zhu et al. (2018), creative thinking enhances professional resilience and enables individuals to respond effectively to complex challenges and evolving learner needs. The final soft component in the proposed model is motivation, particularly achievement motivation. This psychological readiness fuels sustained engagement with digital innovation and continuous learning. A motivated education manager seeks out new knowledge, embraces technological change, and proactively integrates media tools into practice. Motivation also has a social dimension: it enables managers to inspire their teams, foster collective enthusiasm for innovation, and promote a culture of media competence across the institution. Thus, the combination of critical thinking, communicative reflection, operational readiness, creative activity, and motivation forms a cohesive structure of soft competencies essential to the formation of media competence in future education managers. These competencies are not isolated but functionally interrelated, reinforcing one another in the process of navigating, interpreting, and generating media content within ethical and socially responsible frameworks.

Taken together with core digital skills, these soft competencies shape the media competence profile of the education manager as a digitally literate, critically aware, ethically oriented, and creatively engaged professional. This integrated model served as the foundation for the subsequent empirical study aimed at examining the quantitative and qualitative development of media competence among graduate-level education students. An essential component of the media competence framework is operational readiness, which reflects the practical ability of future education managers to interact fluently with diverse media tools and digital platforms. This competence synthesizes foundational knowledge in digital and media literacy with

applied technical skills, enabling professionals to navigate digital ecosystems confidently and productively. It includes familiarity with multimedia technologies, software applications, content management systems, and communication tools that support educational and administrative functions.

Operational readiness is not merely technical aptitude; it reflects an adaptive mindset and responsiveness to technological innovation. Education managers with a high level of operational readiness demonstrate the capacity to integrate new media tools into educational processes, troubleshoot digital challenges, and scale up digital initiatives efficiently. Such adaptability is particularly critical in the context of the rapid evolution of educational technology. Equally important is creative activity, which enriches media competence by fostering innovation and flexible problem-solving. In a dynamic media environment, creativity allows future education managers to design engaging content, experiment with new formats, and develop original pedagogical solutions. It supports divergent thinking and facilitates the transformation of conventional approaches to teaching, leadership, and digital interaction. As noted by Zhu, Wang, Zhang, and Li (2018), creative thinking enhances professional resilience and enables individuals to respond effectively to complex challenges and evolving learner needs.

The final soft component in the proposed model is motivation, particularly achievement motivation. This psychological readiness fuels sustained engagement with digital innovation and continuous learning. A motivated education manager seeks out new knowledge, embraces technological change, and proactively integrates media tools into practice. Motivation also has a social dimension: it enables managers to inspire their teams, foster collective enthusiasm for innovation, and promote a culture of media competence across the institution. Thus, the combination of critical thinking, communicative reflection, operational readiness, creative activity, and motivation forms a cohesive structure of soft competencies essential to the formation of media competence in future

education managers. These competencies are not isolated but functionally interrelated, reinforcing one another in the process of navigating, interpreting, and generating media content within ethical and socially responsible frameworks. Taken together with core digital skills, these soft competencies shape the media competence profile of the education manager as a digitally literate, critically aware, ethically oriented, and creatively engaged professional. This integrated model served as the foundation for the subsequent empirical study aimed at examining the quantitative and qualitative development of media competence among graduate-level education students.

**Materials and Methods.** The study involved 150 Master's degree students from three higher education institutions in Shymkent, Kazakhstan: Kuantbekov People's Friendship University, Auezov South Kazakhstan University, and Miras University. The participants were enrolled in educational programs such as *Pedagogics and Psychology*, *Management in Education*, *Information Technology*, and *Psychology*. The sample included 52 males, and 98 females aged between 21 and 30 years. Participants were randomly assigned to control (n=75) and experimental (n=75) groups based on a baseline assessment of their media competence.

The study utilized a quasi-experimental design with pre-test and post-test assessments. The primary objective was to evaluate the effectiveness of a targeted educational intervention—an online course titled Digital Etiquette—on enhancing the media competence of future education managers. Data were collected using a mixed-method approach, including: An author-developed self-assessment questionnaire designed to measure perceived levels of media competence and media literacy; The standardized "Preparedness for Media Communication" test, which evaluated participants' ability to interpret and engage with media content; Observation protocols focused on behavioral indicators of digital communication skills; Polling instruments assessing participants' subjective experience during the intervention. This triangulated method increased the reliability and validity

of the results by incorporating both subjective self-assessments and objective measurements. The assessment framework was based on four core dimensions of media competence: Digital Literacy; Content Interpretation; Content Generation; Digital Awareness. Each domain was operationalized into measurable indicators used for initial diagnostics and outcome evaluation. These indicators reflected the competencies needed to function effectively in digital educational environments. At the initial stage, all participants completed the diagnostic tools to determine their baseline levels of media competence. Based on the results, the groups were formed to ensure initial comparability. The experimental group then participated in the Digital Etiquette online course, while the control group continued with standard instruction. After

the intervention, both groups were reassessed using the same set of instruments.

**Results and Discussion.** Quantitative data from the questionnaire and standardized test were analyzed using descriptive statistics (means, standard deviations) and inferential methods (e.g., t-tests) to determine the significance of changes between pre- and post-intervention results. Qualitative data from observations and polls were coded thematically to identify trends and patterns in participants' digital behavior and reflective responses. Table 1 presents the average baseline scores for media competence and preparedness for media communication prior to the implementation of the online course "Digital Etiquette." These values provide a reference point for evaluating the impact of the educational intervention on media competence development.

Table 1. *Average values of initial level of media competence and preparedness to media communication*

Pedagogical universities and colleges	Groups	Levels of media competences		
		Low	Medium	High
MC-1. Digital literacy				
A. Kuatbekov PFU	CG-1 (N - 20)	5	12	3
	EG-1 (N - 30)	11	18	1
Miras University	CG-2 (N - 21)	4	14	3
	EG-2 (N - 29)	10	18	1
M. Auezov SKU	CG-3 (N - 19)	3	13	3
	EG-3 (N – 31)	11	19	1
Average values (%)	28%	64%		8%
MC-2. Content interpretation				
A. Kuatbekov PFU	CG-1 (N - 20)	6	11	3
	EG-1 (N - 30)	15	13	2
Miras University	CG-2 (N - 21)	7	11	3
	EG-2 (N - 29)	15	13	1
M. Auezov SKU	CG-3 (N - 19)	7	9	3
	EG-3 (N – 31)	16	13	2
Average values (%)		50%	40%	10%
MC-3. Content generation				
A. Kuatbekov PFU	CG-1 (N - 20)	9	9	2
	EG-1 (N - 30)	19	10	1
Miras University	CG-2 (N - 21)	8	10	3
	EG-2 (N - 29)	15	14	0
M. Auezov SKU	CG-3 (N - 19)	8	9	2
	EG-3 (N – 31)	19	11	1
Average values (%)		58%	36%	6%
MC-4. Digital awareness				
A. Kuatbekov PFU (N-50)	CG-1 (N - 20)	9	10	1
	EG-1 (N - 30)	19	11	0

Miras University (N-50)	CG-2 (N - 21)	12	9	1
	EG-2 (N - 29)	18	11	0
M. Auezov SKU (N-50)	CG-3 (N - 19)	10	8	1
	EG-3 (N - 31)	19	12	0
Average values (%)		70%	28%	2%

Analysis of the baseline assessment results revealed notable variation in the distribution of media competence levels across the four core indicators. The findings are summarized as follows:

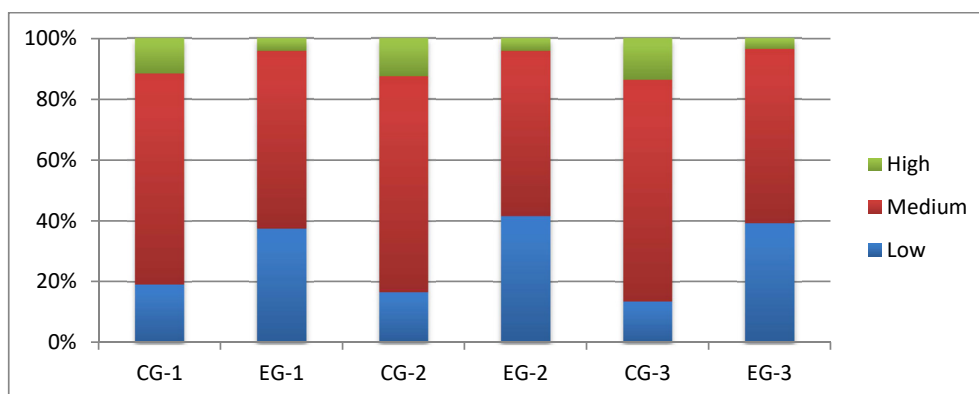
1) MC-1: Digital Literacy – The majority of participants (64%) demonstrated a medium level of competence, with 28% falling into the low category and only 8% achieving high-level performance. This suggests a relatively stable foundation of technical and operational skills among the cohort.

2) MC-2: Content Interpretation – Here, competence was markedly weaker: 50% of respondents scored at a low level, 40% at medium, and only 10% at high. This imbalance indicates substantial difficulty in analyzing and critically assessing media messages across political, economic, and social dimensions.

3) MC-3: Content Generation – An even more pronounced deficit was observed in this domain: 58% of participants reported low competence, while 36% fell into the medium range, and only 6% demonstrated a high level. These results reflect limited capacity to produce meaningful, critically informed media content.

4) MC-4: Digital Awareness – This was the weakest area across the board. A striking 70% of participants reported low awareness, 28% achieved medium results, and only 2% demonstrated a high level of competence. Such findings point to a pervasive lack of ethical and reflective awareness concerning digital behavior, personal digital identity, and the societal implications of media engagement.

Overall, the data indicate that while participants possess a moderate level of technical fluency (MC-1), their skills in interpretation, content creation, and digital self-regulation are underdeveloped. Particularly concerning is the low level of digital awareness, which underscores the urgent need to integrate ethical, legal, and critical reflection practices into professional training. To enhance interpretability and facilitate comparative analysis, graphical representations were constructed for each of the four components. These visualizations (Figure 1) depict the initial levels of MC-1 – Digital Literacy, emphasizing participants' readiness to operate in digital environments prior to the educational intervention.



**Figure 1: Initial level of MC-1 – Digital literacy and preparedness to media communication**

Figure 2 illustrates the initial distribution of participants' media competence in relation to the second key component, MC-2 – Content

Interpretation. This indicator reflects the students' ability to critically process and evaluate media content by identifying relevant



meanings, verifying source credibility, and discerning implicit biases within political, social, and economic messages. The results reveal a disproportionately high concentration of low-level responses (50%), suggesting limited analytical engagement with media texts. Only 10% of the participants demonstrated high-level competence in content interpretation, while 40% scored at a medium level. These

findings emphasize a clear need for targeted development of analytical and interpretive skills within pedagogical training. Given the increasing complexity and saturation of the media landscape, the ability to evaluate and contextualize information is a foundational skill for future education managers responsible for shaping informed and media-literate learners.

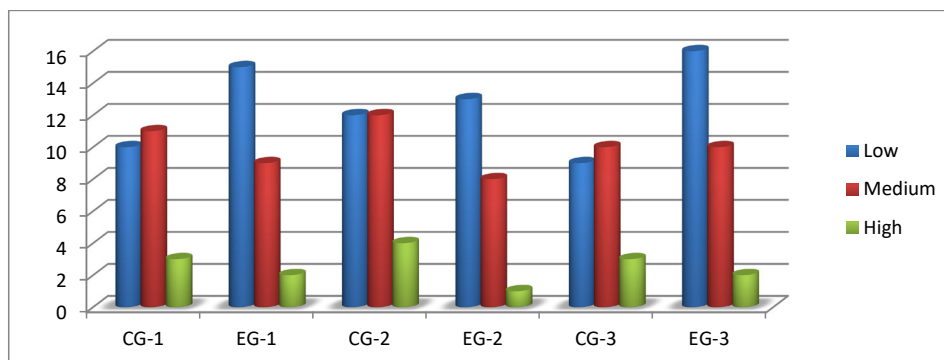


Figure 2: Initial level of MC-2 – Content interpretation

Figure 3 presents the distribution of baseline results for the third key dimension, MC-3 – Content Generation. This component assesses the students' ability to articulate ideas, engage in meaningful communication, and deliberately construct media content-both visual and textual-within digital platforms. The results indicate a predominance of low-level proficiency in this domain: 58% of respondents demonstrated limited ability to formulate coherent, critically informed media messages; 36% were categorized at a medium level; only 6% reached high-level competence. These findings suggest that while students may engage with media content

passively or receptively, their capacity for active, intentional, and reflective content production remains significantly underdeveloped. This is particularly problematic in the context of educational leadership, where the ability to generate impactful media narratives and foster constructive discourse is essential. Enhancing this dimension of media competence is therefore crucial, especially considering the increasing role that education managers play in shaping institutional communication strategies, digital learning environments, and public engagement through media channels.

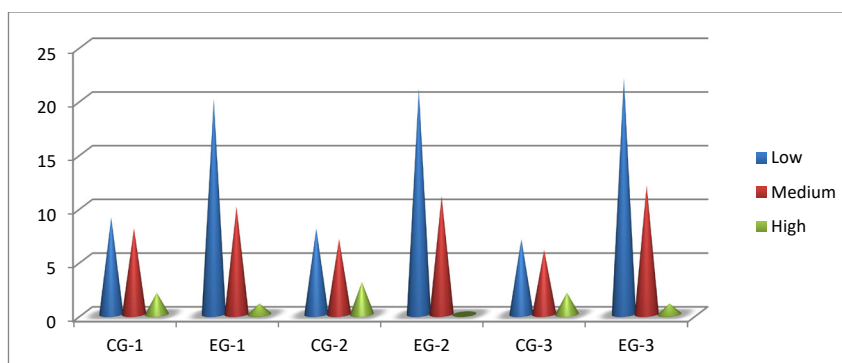
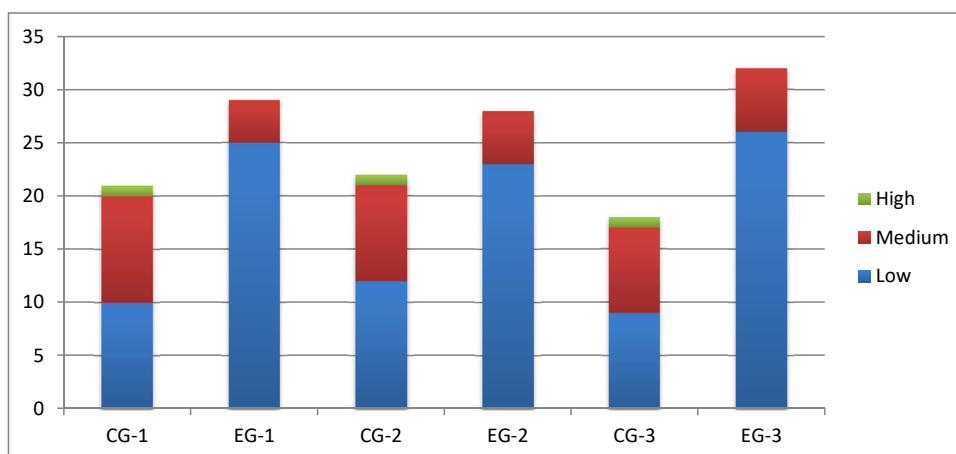


Figure 3: Initial level of MC-3 – Content generation

Figure 4 summarizes the results of both assessment and self-assessment for the fourth component of media competence - MC-4: Digital Awareness. This dimension captures the extent to which students are conscious of their actions, presence, and impact within digital media environments, as well as their understanding of the ethical and legal norms that regulate digital interaction. The data point to a pronounced deficit in this area: A striking 70% of participants scored at a low level; 28% demonstrated a medium level of awareness; and only 2% reached a high level of competence. These findings are particularly concerning, as digital awareness forms the ethical and reflective core of responsible

media behavior. A lack of awareness about digital footprints, online privacy, authorship, and the broader societal implications of one's digital actions undermines not only individual competence but also institutional trust and professional integrity. In the context of education management, where decisions about media use, content dissemination, and digital safety directly affect learners and staff, such underdeveloped awareness signals a critical area for pedagogical intervention. Strengthening this component is essential for preparing future managers to operate within complex digital ecosystems while upholding ethical standards and promoting digital citizenship among students.



**Figure 4: Initial level of MC -4. – Digital awareness**

The analysis of baseline data revealed that many master's degree students exhibited low to medium levels of media competence, particularly in areas requiring critical analysis, content creation, and digital self-awareness. These initial diagnostic results, derived from both subjective self-evaluations and objective testing procedures, provided a basis for dividing the participants into control and experimental groups for the intervention phase of the study. This grouping marked the starting point for a pedagogically structured experiment aimed at enhancing media competence through targeted training. To this end, the authors developed and implemented the online course "Digital Etiquette", which served as a core educational intervention. The course integrated a range of

media formats and pedagogical tools, including video-guided tutorials; concise instructional texts and audio materials; individual and group practical assignments; reflective tasks requiring annotation and publication of results in digital media environments.

Following completion of the course, participants in the experimental groups were reassessed using the same instruments as in the initial phase: the author-designed diagnostic questionnaire; the "Preparedness for Media Communication" test; and additional polling instruments designed to measure self-perception of progress. To further validate the findings, a supplementary survey was conducted to assess participants' understanding of communicative processes in media contexts. The collected data

allowed for a comprehensive assessment of the post-intervention level of media competence, focusing again on the four core dimensions: Digital Literacy; Content Interpretation; Content Generation; Digital Awareness.

Table 2 presents a comparative summary of pre- and post-intervention results in the

experimental groups. The findings clearly demonstrate a positive shift in media competence maturity, thereby confirming the effectiveness of the “Digital Etiquette” course as a pedagogical tool for fostering critical, creative, and ethically responsible engagement with digital media.

Table 2. Comparison study of the indicators of maturity of media competence in the experimental groups (before and after exploring the online course ‘Digital etiquette’)

Universities and colleges	Groups	Levels of media competencies		
		Low	Medium	High
MC-1. Digital literacy				
A. Kuatbekov PFU	EG-1 (in the beginning of EE)	11	18	1
	EG-1 (in the end of EE)	0	14	16
Miras University	EG-2 (in the beginning of EE)	10	18	1
	EG-2 (in the end of EE)	0	13	17
M. Auezov SKU	EG-3 (in the beginning of EE)	11	19	1
	EG-3 (in the end of EE)	0	14	17
Average values (%)		0%	47%	53%
MC-2. Content interpretation				
A. Kuatbekov PFU	EG-1 (in the beginning of EE)	15	13	2
	EG-1 (in the end of EE)	2	13	15
Miras University	EG-2 (in the beginning of EE)	15	13	1
	EG-2 (in the end of EE)	2	12	15
M. Auezov SKU	EG-3 (in the beginning of EE)	16	13	2
	EG-3 (in the end of EE)	2	14	15
Average values (%)		7%	45%	48%
MC-3. Content generation				
A. Kuatbekov PFU	EG-1 (in the beginning of EE)	19	10	1
	EG-1 (in the end of EE)	1	13	16
Miras University	EG-2 (in the beginning of EE)	15	14	0
	EG-2 (in the end of EE)	1	13	15
M. Auezov SKU	EG-3 (in the beginning of EE)	19	11	1
	EG-3 (in the end of EE)	1	14	16
Average values (%)		3%	45%	52%
MC-4. Digital awareness				
A. Kuatbekov PFU	EG-1 (in the beginning of EE)	19	11	0
	EG-1 (in the end of EE)	3	12	15
Miras University	EG-2 (in the beginning of EE)	18	11	0
	EG-2 (in the end of EE)	3	12	14
M. Auezov SKU	EG-3 (in the beginning of EE)	19	12	0
	EG-3 (in the end of EE)	3	13	15
Average values (%)		10%	41%	49%

Post-Intervention Results: Comparative Analysis of Media Competence Levels. A comparative analysis of pre- and post-intervention data in the experimental groups demonstrates a marked

improvement across all four key indicators of media competence. The findings are as follows:

1. MC-1: Digital Literacy. At the initial stage, most participants exhibited low-level

proficiency in technical media skills. However, following the educational intervention, this distribution shifted significantly: 0% remained at the low level; 47% achieved a medium level; and 52% reached a high level of digital literacy. These results confirm the effectiveness of the course in enhancing participants' operational fluency with digital tools and platforms.

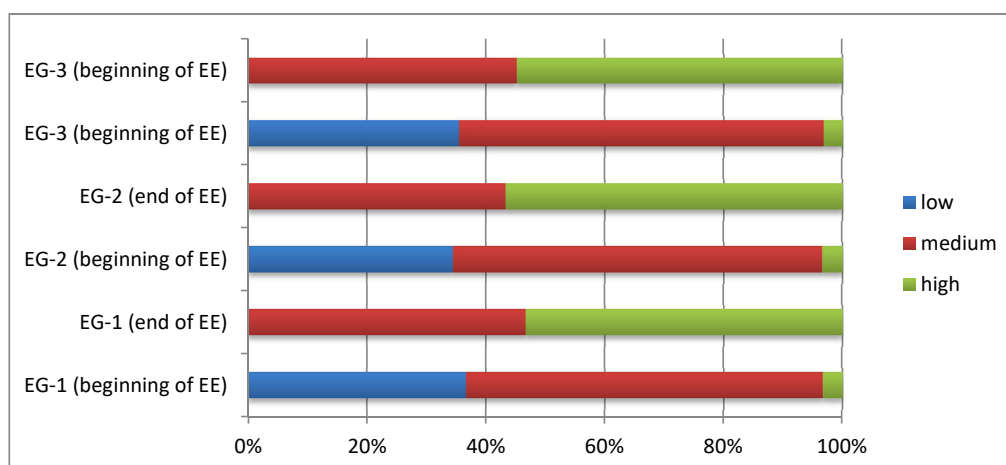
2. MC-2: Content Interpretation. Substantial progress was also observed in the ability to critically evaluate and contextualize media content: Low-level responses dropped to 7%; medium-level responses accounted for 45%; while 48% of students demonstrated high-level interpretive skills. This shift reflects strengthened critical thinking and increased capacity to distinguish valid information from biased or misleading content.

3. MC-3: Content Generation& The ability to create meaningful and purposeful media messages improved notably: Only 3% of participants remained at the low level; 45% attained medium proficiency; and 52%

demonstrated high-level content production skills. Participants showed greater confidence in composing media texts, expressing personal views, and engaging in constructive digital discourse.

4. MC-4: Digital Awareness. Perhaps the most significant qualitative shift was observed in this domain, which is foundational for ethical and reflective media engagement: The proportion of low-level responses decreased to 10%; 41% of participants reached a medium level; and 49% demonstrated high digital awareness.

These results indicate a growing understanding of personal responsibility in digital environments, including issues of online conduct, privacy, and media ethics. To enhance the interpretability of the post-intervention outcomes, visual data representations were created for each component. Figure 5, for instance, displays the final distribution of competence levels for MC-1 – Digital Literacy, reflecting the participants' improved technical readiness following the online course.



**Figure 5: Final level of MC-1. – Digital literacy and preparedness to media communication**

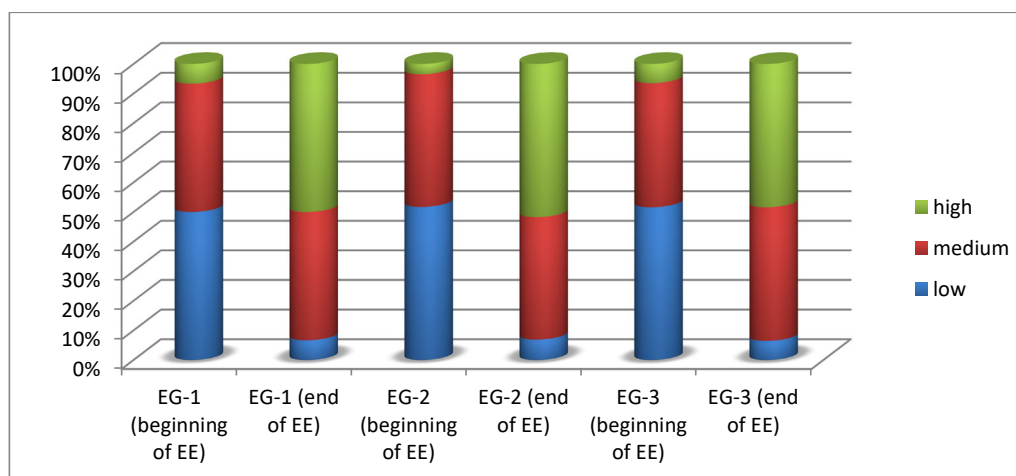
Figure 6 illustrates the results achieved by the experimental group on the second key component - MC-2: Content Interpretation - following the completion of the psychological-and-pedagogical training programme aimed at enhancing media competence. This component reflects the students' ability to critically filter, interpret, and evaluate media content from various sources, considering its socio-political,

economic, and cultural contexts. The post-intervention data reveal a substantial positive shift in competence levels: The proportion of participants at the low level dropped to 7%; 45% reached a medium level, and 48% demonstrated a high degree of interpretive skill. These results indicate that the implemented educational programme successfully fostered the development of critical literacy and



evaluative judgment - essential for informed media engagement in professional educational contexts. Participants became significantly more adept at distinguishing fact from opinion, identifying bias, and extracting reliable meanings from complex digital narratives.

The outcomes reflected in Figure 6 further support the conclusion that structured, practice-oriented training can serve as an effective mechanism for enhancing interpretive dimensions of media competence in future education managers.



**Figure 6: Final level of MC-2 Content interpretation**

Figure 7 presents the final assessment results for the third component of media competence - MC-3: Content Generation, which pertains to the ability of future education managers to formulate and express their views, engage in meaningful digital communication, and construct media content with intentionality and critical reflection. Following the implementation of the psychological-and-pedagogical training programme, participants in the experimental group demonstrated substantial progress: Only 3% of students remained at the low level of competence; 45% attained a medium level, and 52% reached a high level of performance in this domain.

These results highlight an enhanced capacity for active participation in digital discourse,

including the creation of well-reasoned media posts, constructive commentary, and purposeful engagement in online platforms. Students showed improved skills not only in expressing individual beliefs but also in adapting their communication for specific audiences and contexts. The development of content generation skills is particularly important in educational management, where professionals are increasingly required to curate, produce, and moderate digital content as part of teaching, leadership, and community engagement activities. The outcomes depicted in Figure 7 confirm that the intervention fostered both technical ability and critical intentionality in media production among future education managers.

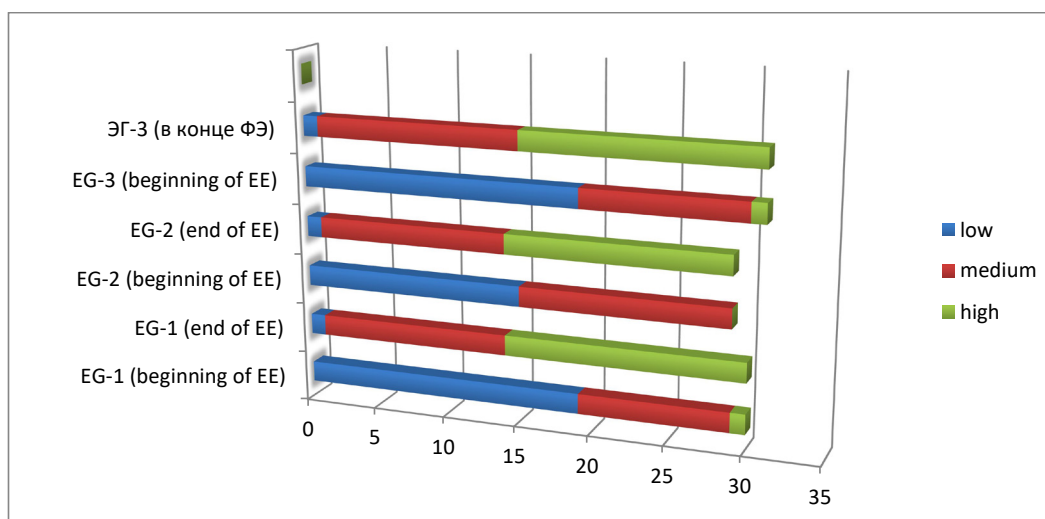


Figure 7: Final level of MC-3. – Content generation

The obtained findings on assessment and self-assessment of the final level of media competence of the master's degree students on the fourth component MC-4 – Digital

awareness – ability to realize one's own actions and influence in digital media space are given in Figure 8.

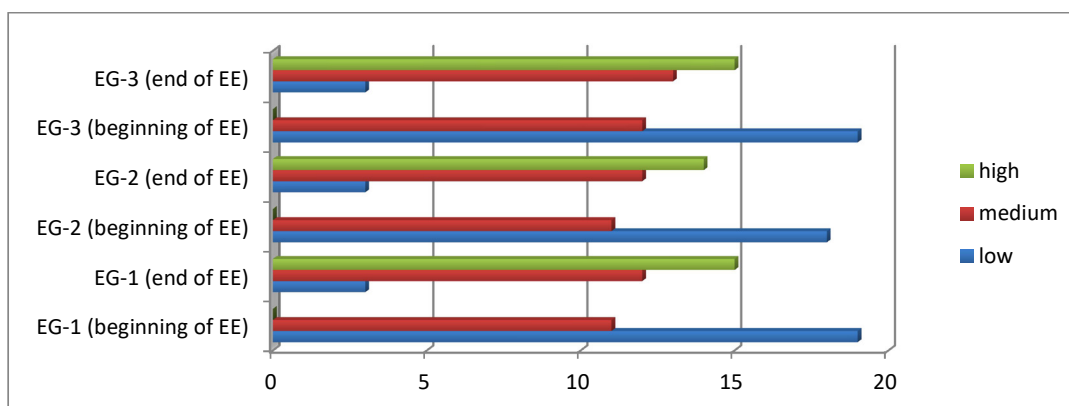


Figure 8: Final level of MC-4. – Digital awareness

Figure 8 reflects the final distribution of media competence levels among the experimental group in relation to the fourth and most complex component - MC-4: Digital Awareness. This dimension evaluates participants' ability to reflect on their digital presence, recognize the social and ethical implications of media behavior, and adhere to legal norms within digital environments. Post-intervention results show a substantial qualitative improvement: The proportion of students at the low level dropped to 10%; 41% demonstrated a medium level, while 49% achieved a high level of

digital awareness. These outcomes indicate that students not only expanded their understanding of responsible media behavior but also developed critical awareness of how digital actions affect professional reputation, institutional culture, and learner well-being. Participants exhibited greater sensitivity to privacy, intellectual property, and ethical standards in media use - competencies essential for leading digital transformation in educational contexts.

**Conclusion.** The results obtained at the control stage of the study clearly demonstrate that the experimental group achieved significantly

higher levels of media competence in comparison both to their own initial performance and to the final outcomes of the control group. Given that all other external conditions remained stable, this positive dynamic can be directly attributed to the implementation of the “Digital Etiquette” online course, which functioned as a key pedagogical intervention during the formative phase of the study. The applied model of intrinsic and component structure of media competence, developed and tested in this research, has allowed us to conceptualize a pedagogical profile of the media-competent education manager of the future. This professional is characterized by the ability to: engage in purposeful and effective media activity to enhance the educational process; manage digital communication and content in alignment with pedagogical goals; apply media, digital, and informational literacy in both instructional and administrative settings; critically interpret and produce media content; demonstrate operational readiness and creativity in media use; reflect communicatively and

ethically in media environments, and maintain motivation and value-based orientation toward responsible and innovative digital engagement.

At the core of this professional profile lies a synergistic integration of soft and media-specific competencies. Soft competencies - including critical thinking, creative activity, motivation, operational readiness, and communicative reflection - intersect with core media competencies - such as digital literacy, content interpretation and generation, and digital awareness. Together, they form a cohesive foundation for professional identity and effectiveness within the digital learning environment. This integrated model offers both theoretical and practical implications. It can serve as a framework for designing targeted training programs, evaluating professional readiness in digital education, and guiding institutional policies on media pedagogy and leadership development in the context of global digital transformation.

### References

- Baacke, D. (2001). *Qualitative Medien und Kommunikationsforschung* [Qualitative media and communication research] (pp. 45–48). Tübingen [in German].
- Baran, S. J. (2002). *Introduction to mass communication*. McGraw Hill.
- Bulger, M., & Davison, P. (2018). The promises, challenges, and futures of media literacy. *Journal of Media Literacy Education*, 10(1), 1–21.
- Drevitskaya, I. Yu. (2018). Kontseptsiya podgotovki menedzherov obrazovaniya [The concept of training managers in education]. *Vestnik DPI - Vestnik DPI*, (2), 153–161 [in Russian].
- Fateeva, I. A. (2007). *Mediaobrazovaniye: teoreticheskiye osnovy i opyt realizatsii* [Media education: Theoretical foundations and implementation experience]. ChelGU [in Russian].
- Fedorov, A. V. (2007). *Razvitiye mediakompetentnosti i kriticheskogo myshleniya studentov pedagogicheskogo vuza* [Development of media competence and critical thinking of pedagogical university students]. UNESCO IFAP [in Russian].
- Goncharova, T. M. (2013). *Formirovaniye mediakompetentnosti u budushchikh menedzherov* [Formation of media competence in future managers]. Kandidatskaya dissertatsiya, Chelyabinsk [in Russian].
- Isaeva, Z. A. (2003). *Podgotovka menedzherov obrazovaniya v KazNU im. Al'-Farabi* [Training of education managers at Al-Farabi KazNU]. In *Problemy i perspektivy podgotovki prepodavateley vysshey shkoly v novom obrazovatel'nom prostranstve* (Vol. 1, pp. 20–25). Almaty [in Russian].
- Isakov, B. A. (2013). *Razvitiye mediakompetentnosti uchiteley v usloviyakh resursnogo tsentra* [Development of teachers' media competence in a resource center environment]. Kandidatskaya dissertatsiya, Barnaul [in Russian].
- Jooyeun, P. (2017). Media literacy, media competence, and media policy in the digital age. In *Arts, Humanities, Social Sciences and Education Conference* (pp. 68–75).
- Kadribayeva, R. I., & Amirbekuly, M. A. (2020). *Issledovaniye formirovaniya professional'noy kompetentnosti budushchikh pedagogov* [Study of the formation of professional competence of future teachers]. *Alma Mater. Vestnik vysshey shkoly - Alma Mater. Bulletin of Higher School*, (5), 76–82 [in Russian].
- Kuanisheva, B. T. (2021). *Formirovaniye mediakompetentnosti studentov v kontekste inoyazychnoy*

podgotovki v vuze [Formation of students' media competence in the context of foreign language training at the university]. PhD dissertatsiya, Pavlodar [in Russian].

Kuatbekov, A., & Tapalova, O. B. (2021). Mediakompetentnost' sovremennogo menedzhera obrazovaniya [Media competence of the modern education manager]. UDN im. akad. A. Kuatbekov [in Russian].

Kuatbekov, A., & Tapalova, O. B. (2021). Professional'naya kompetentnost' budushchikh menedzherov obrazovaniya [Professional competence of future education managers]. Khabarshy KazNPU im. Abaya. Seriya psikhologiya - Khabarshy KazNPU im. Abaya. Psychology Series, 3(68), 6–12 [in Russian].

Kuatbekov, A., Vershinskaya, E., Kosareva, I., & Ananishnev, V. (2021). E-learning as a basis for the development of media competences in students. Journal of Information Science.

Kunakova, K. Yu., & Primbetova, G. S. (2020). K voprosu izmereniya professional'nykh kompetentsiy prepodavateley vysshey shkoly [On the issue of measuring professional competencies of higher school teachers]. Vestnik Akademii pedagogicheskikh nauk Kazakhstana - Vestnik of the Academy of Pedagogical Sciences of Kazakhstan, 1(93), 41–48 [in Russian].

Lin, L., et al. (2020). Development of the new media literacy scale for EFL learners in China: A validation study. Interactive Learning Environments, 212–230. <https://doi.org/10.1080/10494820.2020.1774396>

Miliutina, A. (2020). Organization of the process of developing students' media competence by means of information-educational environment. Espacios, 41(50), Article 17. <https://doi.org/10.48082/espacios-a20v41n50p17>

Nikou, S., & Aavakare, M. (2021). An assessment of the interplay between literacy and digital technology in higher education. Education and Information Technologies, 78–89.

Nurgalieva, G. K. (2019). Primeneniye IKT v vysshem obrazovanii stran SNG, Baltii i Tsentral'noy Azii: sovremennoye sostoyaniye, problemy i perspektivy razvitiya [Application of ICT in higher education in CIS, Baltic, and Central Asian countries: Current state, problems, and development prospects]. Mezhdunarodnyy zhurnal prikladnykh i fundamental'nykh issledovaniy - International Journal of Applied and Basic Research, (3–2), 37–38 [in Russian].

Sharikov, A. V. (1990). Mediaobrazovaniye: mirovoy i otechestvennyy opyt [Media education: Global and domestic experience]. Akademiya pedagogicheskikh nauk [in Russian].

Silverblatt, A. (2002). Dictionary of media literacy. Greenwood Press.

Simonov, V. P. (1999). Pedagogicheskiy menedzhment: 50 nou-khau v upravlenii pedagogicheskimi sistemami [Pedagogical management: 50 know-how in managing pedagogical systems]. Moscow [in Russian].

Simons, M., Meeus, W., & T'Sas, J. (2017). Measuring media literacy for media education: Development of a questionnaire for teachers' competencies. Journal of Media Literacy Education, 9(1), 99–115. <https://doi.org/10.23860/JMLE-2017-9-1-7>

Smyrnova-Trybulska, E. (2019). Evolution of media competences. Open Educational E-Environment of Modern University, 103–112.

Tazhenova, G., et al. (2019). Development of media competence within the framework of professional training of future teachers. Opción, 35(Special No. 20), 1009–1025. <https://produccioncientificaluz.org/index.php/opcion/article/view/24565>

Tomczyk, L. (2020). Skills in the area of digital safety as a key component of digital literacy among teachers. Education and Information Technologies, 25, 471–486. <https://doi.org/10.1007/s10639-019-09980-6>

Tran, T., et al. (2020). How digital natives learn and thrive in the digital age: Evidence from an emerging economy. Sustainability, 12, 3819. <https://doi.org/10.3390/su12093819>

Turgunbayeva, B., et al. (2019). Pedagogical conditions for the formation of students' media competence in the process of higher professional education. AD ALTA: Journal of Interdisciplinary Research, 9(1), 6–11.

Zhu, S., Yang, H., Xu, S., & MacLeod, J. (2018). Understanding social media competence in higher education: Development and validation of an instrument. Journal of Educational Computing Research, 1–21. <https://doi.org/10.1177/0735633118820631>

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