Inha Oleksiivna Khmelevska
Ganna Oleksandrivna Rebrova

Information and communication technologies as a factor of activation of metacognition in artistic activity

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Inha Oleksiivna Khmelevska
Candidate of Pedagogical Sciences,
Senior Lecturer at the Department
of Musical Art and Choreography
The State Institution "South Ukrainian
National Pedagogical
University named after K. D. Ushynsky"
ORCID: 0000-0001-9129-2173

Ganna Oleksandrivna Rebrova
Candidate of Pedagogical Sciences,
Lecturer at the Department of Vocal
and Choral Training
The State Institution "South Ukrainian
National Pedagogical
University named after K. D. Ushynsky"
ORCID: 0000-0001-7128-7350

The study explores the role of information and communication technology (ICT) in enhancing metacognition in artistic activities, with a particular focus on music performance and choreography. Metacognition, which is defined as awareness and regulation of one's cognitive processes, plays an important role in these activities, as it promotes self-regulation, reflexivity and creativity. The expediency of using a number of scientific approaches to fulfil the tasks of the research was substantiated. In particular, an interdisciplinary approach combining ideas from psychology, art history and art pedagogy is used to study the phenomenon of metacognition in the context of artistic activity. The systemic-functional approach is used to analyse the relationships between different elements within artistic systems, including artistic methods and technologies that contribute to metacognitive development. The competency approach allowed the identification of specific skills related to metacognition, while the reliance on the technological approach facilitated the identification of ICT tools that contribute to the activation of metacognitive processes to perform artistic tasks. The conducted research allowed us to study the phenomenology of metacognition in artistic-performative activity, to determine that it covers three main dimensions: declarative, procedural and conditional, and performs the functions of improving the quality of self-analysis, self-regulation, as well as analytical-creative processes in artistic activity. It was clarified that metacognitive processes are cyclical in nature, because they include analysis, reasoning, performance, evaluation, correction and repetition, which are interrelated and essential for artistic expression. Relying on a sound methodology allowed us to investigate how ICT can activate metacognition by providing tools for planning, monitoring and evaluating artistic endeavours. The results showed that Instructional Videos, Online Courses, Digital Audio Workstations, Interactive Concert Performance Simulators, Video and Sound Recording Tools, Collaborative Platforms, Virtual Reality (VR) Technologies, Motion Capture Technology, Artificial Intelligence (AI) Platforms have relevant potential. The prospect for further research is to explore the potential of specific technologies to activate metacognition in various artistic and performative activities of musicians and choreographers.

Keywords: *Metacognition, Information and Communication Technologies, Artistic Activities, Self-Regulation, Reflective Practice, Music Performance, Choreography, Interdisciplinary Approach, Systemic-Functional Approach, Competence-Based Approach, Technological Approach.*

Introduction. Metacognition plays a key role in artistic and performative activities, serving as the basis for artists' artistic cognition, self-regulation and reflective practice. This cognitive process, which involves reflecting on one's own thinking, allows artists to evaluate their creative choices and adapt their performances accordingly. In the context of dance, music and other forms of artistic expression, metacognitive strategies influence the quality of performance and the intensity of artistic expression.

One of the fundamental aspects of metacognition in artistic performance is reflection, which enables critical analysis of one's creative output in a cyclical creative process, all stages of which – analysis, reflection, performance, evaluation, correction, repetition – are interrelated and require a high measure of metacognitive self-regulation (Backhouse et al., 2016). The need for intense self-control, error recognition and appropriate correction of performance and creative strategies determines the central role of metacognition in artistic and performative activities. At the same time, it is noted that this type of cognition is an autopoiesis process, the activation of which, for example, in the performing process, positively affects all aspects of artistic activity. Thus, according to Bellon et al, (2019), the activation of metacognition to correct one's own errors is a significant predictor of performance improvement. At the same time, such metacognitive monitoring, by increasing awareness of the activity, triggers self-regulation processes at all levels, including the level of goal setting, which improves the ability to plan one's performance-creative activity, evaluate progress and develop appropriate strategies to achieve the desired level of artistic excellence (Bellon et al., 2019).

In addition to self-regulation, metacognition fosters creativity by allowing artists to explore and experiment with different artistic solutions. The concept of creative metacognition, as discussed by Velcu-Laitinen (2024), emphasises the fluidity of creative identity and the importance of reflective practices to trigger new actions and ideas. Such reflexivity contributes to the evolution of creative identity, which occurs through metacognitive processes, whereby the ability to understand oneself as a creative unit, allows one to better navigate the complexities of the profession and encourages one not to be afraid to use innovative forms of artistic expression and interpretation in creative and performative activities.

At the same time, today, information and communication technologies (ICT) are considered as one of

the essential factors of activation of metacognition. In particular, technologies are considered to be an effective factor in developing the ability to perform tasks that require self-regulation and reflection in a poorly structured, variable environment, such as artistic and creative activities (Azevedo & Aleven, 2013). Integrating technology into such activities can significantly improve metacognitive skills by providing tools that facilitate the planning, monitoring, and evaluation of the professional development process. Through the creation of technological learning environments that encourage exploration and self-directed professional development, stimulating iterative reflection and adaptation, directly linked to metacognitive self-regulation processes (Azevedo & Aleven, 2013).

Literature review. The concept of metacognition emerged from interdisciplinary research in fields such as ethology, psychology, neurophysiology, and cognitive linguistics, and evolved into a distinct field of study known as cognitive science. Researchers have studied the intricacies of human thought processes and their interaction with the environment, leading to an understanding of the parallels between artificial intelligence and human cognition. For example, Longuet-Higgins (1973), Miller (2003), and Simon (1996) have contributed to understanding how metacognition, defined as knowledge about one's cognitive processes, plays a critical role in both human and artificial systems. Simon's work highlights that both human cognition and artificial intelligence rely on similar algorithms to process information and develop strategies based on situation analysis. This foundational understanding is further developed in J. Flavell's metacognitive monitoring model, which highlights the components of metacognitive knowledge that enable people to communicate effectively, learn autonomously, self-monitor, and promote self-development. Flavell argues that these components are based on an awareness of the relationship between knowledge, goals, and the outcomes of analysing information.

Recent studies have emphasised the potential of metacognition to facilitate the development of professional competencies. For example, Halam (2001) studied metacognition in musical practice and found a significant role for metacognitive processes in all stages of music performance, from production preparation to concert performance. This is consistent with the findings of (Concina, 2019), who emphasised the importance of metacognitive dimensions in music learning, suggesting that learning and practice processes are as important as performance outcomes. Furthermore, metacognitive strategies have been demonstrated to significantly improve performance in music education, emphasising the need for students to possess self-knowledge and awareness of their cognitive processes (McPherson, & Renwick, 2011). Such findings indicate that metacognitive skills can be transferred to different cognitive domains, reinforcing the idea that metacognition is integral to the development of competencies in the performing arts.

The integration of metacognitive concepts has forced a reconsideration of traditional competency frameworks, including B. Bloom's taxonomy. Bloom's original model emphasised performance appraisal as a regulatory mechanism for managing a specialist's competence sphere. However, the inclusion of metacognitive principles turned this model into a two-dimensional continuum that allows building strategies that effectively manage all elements of the competence domain. This evolution has led to the delineation of metacognitive domains that contribute to the emergence and functioning of competences. Andersen et al. (2001) identified several key metacognitive domains including strategic knowledge, cognitive task knowledge, self-knowledge, competence knowledge, and cognitive knowledge. These domains collectively enable professionals to develop effective learning and performance strategies, identify tasks, and develop self-awareness of their competencies.

The study of metacompetence, defined as the integrative and effective functioning of the entire domain of competencies, has become a subject of interest to scholars. Scholars such as Brown (1993) and Maaß (2006) have found that metacognitive management is necessary to mitigate the negative effects of competency fragmentation. This corpus of research has served as a basis for studying the integral competence of future music and choreography professionals, emphasising their ability to synergistically apply competences in artistic and educational contexts.

In the field of cognitive psychology, research has explored the intersection of cognitive processes and artistic expression. Chamberlain (2018) suggests studying experiences in the arts by contrasting different disciplines such as music, dance, and visual arts to better understand the cognitive underpinnings of artistic skills (Chamberlain, 2018). The concept of metacognition has indeed attracted the attention of arts activity researchers in recent years. In particular, it has been determined that metacognition is related to music-performing abilities. For example, Power and Powell (2018) emphasise the importance of conscious intentional thinking and self-regulation in musical performance, suggesting that metacognitive processes underpin an individual's ability to develop understanding and mastery (Power & Powell, 2018).

In turn, the integration of technology into artistic and performative activities offers opportunities for the development of metacognitive skills. Research shows that ICT can contribute to the development of metacognitive skills by providing interactive and engaging platforms. For example, digital tools can improve self-regulation by allowing students to monitor their cognitive processes and adjust their creative strategies accordingly (Balashov, et al., 2021). This ability is relevant in artistic activity, which is dynamic

and requires constant adaptation and reflection on one's creative methods and results. Among the technologies that contribute to the activation of this ability, online platforms and collaborative applications are explored that allow to discuss creative ideas and results, receive feedback and participate in discussions that stimulate metacognitive reflection (Power & Powell, 2018; Concina, 2019).

The positive influence of the innovation environment, on the creative motivation to experiment and innovate in artistic endeavours, has also been noted. As Wang & Tien (2023) point out, the ability to manipulate digital media allows one to visualise one's ideas and iterations in the artistic process, fostering a sense of autonomy and responsibility for one's work. This sense of responsibility is closely related to metacognitive abilities, as it encourages reflection on one's choices and evaluation of the creative process.

Purpose of Article. The main aim of the study is to investigate how information and communication technologies (ICT) can help to activate metacognition in artistic activities. This involves understanding how metacognitive processes – such as strategic planning, monitoring and evaluation – function in different types of artistic and performative activities and how they can be activated through technology. In order to achieve the aim of the study, the following objectives were set: (a) to study the phenomenon of metacognition in artistic and performative activities; (b) to identify the functions that metacognition in such activities fulfils; and (c) to investigate technologies that stimulate metacognition in artistic and performative activities.

Research Methods. A number of approaches were used to fulfil the research objectives. In particular, the systemic-functional approach, which focuses on identifying the interrelationships between different components within a system, allows us to analyse how different elements (technologies, methods, environments, etc.), interact with each other to promote metacognitive development. By exploring these interrelationships, research can identify how ICT can be effectively integrated into art activities to develop metacognitive skills. For example, Seli et al. discuss how technology can enhance human cognitive capabilities, suggesting that ICT integration can enhance the developmental environment and support metacognitive processes in artistic activities (Seli et al., 2024).

A competency-based approach that emphasises the development of specific skills and competencies required for success in artistic and performing arts activities. This approach is consistent with the need to cultivate metacognitive skills such as self-regulation, critical thinking, and creativity that are important for arts performance. This approach allows us to identify such competences and, also, ways to develop them through ICT (Concina, 2019). Given the specificity of the research, the multifaceted nature of artistic activities and the diversity of ICT, it is important to rely on an interdisciplinary approach. This approach brings together ideas from different fields including psychology, education and art theory to create a holistic understanding of metacognition in artistic activity (LaFrance, 2018).

The technology approach focuses on specific technologies that can enhance metacognitive skills in artistic endeavours. It involves exploring how various digital tools such as artistic making software, online collaboration platforms and digital portfolios, augmented reality technologies can promote reflection, self-assessment and self-regulation in the collaborative creative process (Orfanidis, 2023).

Results& Discussion. The study of the phenomenon of metacognition in artistic and performing activity has revealed its connection with the processes of reflection, self-regulation and self-reflection aimed at increasing the success of performing activity and ensuring the artistic expressiveness of the performance. It was determined that self-reflection is one of the tools of metacognitive self-regulation during performances, which allows making self-correction and identifying areas for improvement. For example, in musicians' performance, self-reflection allows choosing appropriate strategies, understanding the characteristics of artistic tasks, selecting specific areas of improvement to learn and adapt quickly (Power & Powell, 2018; Concina, 2019).

Metacognition plays an important role in analytical-creative activities that support the processes of interpreting and performing works. Such metacognition includes declarative, procedural and contingent knowledge that enables the recognition and application of appropriate reflection strategies on one's understanding of musical elements, their emotional meanings, performance methods, etc. (Negretti & Kuteeva, 2011).

Declarative metacognition refers to the awareness of one's own cognitive processes and knowledge of facts and concepts related to music. This includes understanding music theory, recognising different styles, and being aware of one's own strengths and weaknesses as a musician. ICT such as instructional videos, online courses and interactive music theory applications are used to activate declarative metacognition. For example, platforms such as YouTube or specialised music education websites allow to watch performances and analyses by expert performers. The use of such digital tools activates reflection, helping to monitor one's thought processes and analyse the state of knowledge, encouraging one to actualise experiences and identify gaps in one's understanding (Li et al., 2023).

Procedural metacognition is the foundation of the ability to perform tasks and effectively apply performance strategies to do so. In the context of musical performance, this type of metacognition allows for the

selection and application of effective methods ranging from methods of technical-performance mastery of a piece, to sophisticated methods of analysing artistic language, such as semiotic and hermeneutic methods. Procedural metacognition also allows for the development of performance strategies that take into account individual characteristics, previous experience, and current goals. To activate them, it is advisable to use ICTs designed for musical performance practice. For example, metronome applications, digital audio workstations (DAWs) and interactive concert performance simulators, which allow musicians to develop and test specific strategies to improve their technical skills. Using these digital tools, musicians can experiment with different playing techniques, receive instant feedback and adjust their performance strategies accordingly. In addition, ICTs can be applied to enhance the effectiveness of traditional methods of activating procedural metacognition in music performance, particularly mental visualisation techniques of performance (Mitsea & Drigas, 2019). The use of video and sound recording tools, with their subsequent analysis, has a significant impact on the ability to strategically introspect and construct appropriate procedural metacognition on this basis.

Conditional metacognition refers to the understanding of when and why certain strategies or knowledge should be used. This type of metacognition allows to use the existing experience of strategic planning, adapt existing strategies to new conditions and adjust them according to the requirements of solving specific artistic tasks. To activate conditional metacognition, it is advisable to use ICTs such as collaborative platforms and online communities. Such technologies facilitate discussions and feedback with colleagues, allowing musicians to share their experiences and insights into different interpretive approaches. Participating in open problem-solving activities through technology encourages reflection on their cognitive processes and incentivises them to adapt their strategies in response to contextual demands (Hughes, 2019). In this way, technology helps to create an environment in which musicians are exposed to different perspectives and interpretive and performance strategies.

The process of self-evaluation and self-regulation provided by metacognition is equally relevant in dance. In particular, metacognition, defined as the awareness and regulation of one's cognitive processes, plays a key role in how choreographers conceptualise, create and refine their work. In particular, metacognition allows choreographers to work with their creative impulses to critically evaluate and adapt their artistic choices throughout the choreographic process (Yang et al., 2024).

Research suggests that metacognition plays a key role in providing a link between cognitive processes and physical movement. This connection implies that when dancers work with their bodies in movement, they simultaneously engage in metacognitive reflection, which involves analysing movements and making informed decisions regarding performance. Thus, metacognition provides a necessary level of attention in the choreographic-performance process. A study of choreographers' attentional efforts in their relationship with the process of motor imagery emergence, demonstrates that dancers, in the performative process, are engaged in a creative process that involves making decisions moment by moment (Carey et al., 2019). This focus is a key aspect of metacognition as it requires dancers to be aware of their cognitive processes while performing movements.

Virtual reality technologies are able to activate the ability to focus on specific elements of choreography while reflecting on the integrity of the performance. By creating an immersive environment in which dancers can experiment with their movements without the constraints of physical space, such technologies simulate reflection, in particular encouraging dancers to engage in self-evaluation and adjust their technique based on their virtual experience. The interactive nature of VR allows for a unique form of feedback that can lead to improved self-regulation and cognitive awareness, critical components of metacognition (Yuan & Nie, 2023). By simulating different performance scenarios, VR technologies allow dancers to explore different artistic choices and their potential outcomes, thereby facilitating the unfolding of a cycle of metacognitive processes of reflection and adaptation (Liu & Qian, 2022).

Metacognition, as a conscious understanding of one's cognitive and emotional reactions in the choreographic process, plays a key role in shaping choreographers' individual style, as it influences the specifics of the process of mastering choreographic vocabulary and dance patterns (Pidlypska et al., 2024). In turn, the ability to competently distribute physical load and cope with the demands of choreographic work reflects the choreographer's metacognitive understanding of his/her capabilities and limitations. This metacognition can be activated by motion capture technology. This technology makes it possible to accurately track body movements and visualise the performance in real time. In this way, the dancer has a unique opportunity to learn the exact parameters of his or her performance capabilities and limitations. Such cognition increases metacognitive awareness of one's own cognitive and physical processes during the creation and performance of choreography (Shi, 2019; Raheb et al., 2019).

An important role in choreographic activity is played by metacognition aimed at awareness of one's artistic and creative goals and factors contributing to their achievement, and, ultimately, perception of this process as professional and creative self-actualisation (Androshchuk et al., 2023). Artificial Intelligence (AI) technology contributes to the activation of such

reflection. AI-based platforms can analyse a dancer's movements and provide personalised feedback, encouraging critical reflection on their performance. AI technology has the potential to induce dancers to engage in self-monitoring and strategic planning, key aspects of metacognitive regulation (Zhang, 2023).

The metacognitive processes required to create dance choreography are a complex cycle of mental actions based as a holistic integration of mind and body. This cycle provides all stages of the creative process in choreography – from the emergence of an idea, analysing the emotional and communicative potential of the movements to be created, combining them into a coherent composition, to direct performance (Yang et al., 2024). Underpinning this process is a particular form of artistic 'possibility thinking', which involves reflecting on one's artistic choices and the potential outcomes of one's creative decisions (Angelina & Abraham, 2015). Thus, a key role is given to the mental exploration of different movements and, directly, the performance is perceived as an experimental-creative process. Among the technologies that can activate this metacognitive process are various multimedia that provide opportunities to analyse choreographic experiments. Among such videos and interactive installations. By recording performances and allowing dancers to revisit their movements, these technologies facilitate the understanding of their artistic choices and the expressiveness of the choreography in the context of the realisation of the original idea (Sun, 2022).

As the choreographic process is fundamentally linked to active communication, the role of new technologies that can provide opportunities for greater audience engagement and feedback is important. Such technologies can be utilised through various digital platforms, such interactions encourage dancers to reflect on their artistic identity and explore their own ability to share artistic ideas in the creative process. Also, the integration of digital platforms allows for an inclusive approach to dance creation, where choreographers interact with dancers to discuss their artistic choices. This process encourages choreographers to reflect on their artistic intentions and how their creative work is perceived, which promotes a deeper level of self-esteem and reflection (Zheng, 2023).

Conclusions. This study has determined that metacognition, considered as the awareness and regulation of one's cognitive processes, plays an important role in artistic and performative activities, particularly in music performance and choreography. To explore how information and communication technologies (ICTs) can help to activate metacognition in such activities, a series of tasks were formulated and the feasibility of using appropriate scientific approaches to carry them out was justified. In particular, an interdisciplinary approach allowed integrating research findings from the perspectives of cognitive psychology, art history and educational theory to understand the phenomenon of metacognition and its functions in artistic and performative activities. As a result, it was determined that metacognition in artistic-performative activity should be considered as an intensional awareness and regulation of one's cognitive processes related to the creation, interpretation and performance of artistic statements. This phenomenon includes three main dimensions: declarative, procedural and conditional metacognition.

Declarative metacognition involves knowledge of one's cognitive processes, including an understanding of artistic concepts, techniques, and personal strengths and weaknesses. Procedural metacognition refers to the strategies and methods used to perform effectively in a particular branch of art, allowing one to select and apply appropriate techniques during performance or creation. Contingent metacognition involves the ability to identify when and why certain strategies should be employed, allowing one to adapt one's approaches depending on contextual demands and audience response.

Relying on the system-functional and competence approaches allowed us to identify the main functions that metacognition fulfils in artistic and performative activities. Among such were identified:

Assistance in self-reflection and self-regulation – this function is related to the processes of reflection, which allows musicians and dancers to evaluate their own performance, identify areas for improvement and make the necessary adjustments in real time. Thus, musicians, based on reflection, can choose interpretation strategies in accordance with their understanding of the specifics of the artistic objectives, choreographers can analyse their movements and refine their technique on the basis of reflexive self-assessment, as well as on the basis of analysing the quality of artistic communication (achieving understanding) in the choreographic process.

Improvement of analytical-creative processes – this function is related to the understanding of artistic elements and their emotional meanings. it includes recognising and applying appropriate reflective strategies that improve the interpretation and performance of musical and choreographic artworks. Also, this function, realised through declarative metacognition, ensures effective understanding of artistic concepts, recognition of styles, as well as, awareness of personal strengths and weaknesses of professionally significant qualities. Through implementation in procedural metacognition, this function enables the selection and application of effective strategies and artistic methods, taking into account one's own individual characteristics and goals (in music performance this may include mastering technical skills or analysing artistic language, in choreography – developing movement strategies appropriate to the original artistic idea). The realisation of this function in conditional metacognition

provides an understanding of when and why to apply certain strategies or knowledge.

The technological approach allowed us to identify ICTs that contribute to the activation of metacognition in various types of musical-performance and choreographic activities. Among these are:

– Instructional videos – platforms such as YouTube and specialised music education websites provide access to performances and analyses by expert performers, promoting declarative metacognition, allowing them to monitor their thought processes and identify gaps in their understanding.

– Online courses – these platforms offer structured learning experiences that expand declarative knowledge related to music theory and performance technique, promoting self-reflection and cognitive awareness.

– Digital Audio Workstations (DAWs) – enable the recording, editing and creation of music, promoting procedural metacognition by allowing experimentation with different playing techniques and immediate feedback to adjust performance strategies.

– Metronome Applications – help develop synchronised performance skills and a metronomic sense of synchronisation and rhythm, serving as a tool for procedural metacognition, helping them to hone their technical skills.

– Interactive Concert Performance Simulators – allow them to practice and test specific strategies in a simulated performance environment, improving procedural metacognitive skills.

– Video and audio recording tools – their use allows you to analyse your performances, facilitating strategic self-reflection and the development of procedural metacognitive thinking.

– Collaborative platforms – online communities and collaborative tools facilitate discussion and feedback, fostering the development of contingent metacognition, encouraging reflection on cognitive processes and adaptation of strategies based on collaborative reflection on experiences.

– Virtual Reality (VR) technologies – able to create an immersive environment for choreographers in which they can experiment with movement without physical constraints, increasing self-esteem and metacognitive awareness;

– Motion capture technology – this technology accurately tracks body movements and visualises performances in real time, increasing metacognitive awareness of cognitive and physical processes in the performing (in music performance and choreography) processes.

– Artificial Intelligence (AI) platforms – these technologies are able to assist in the analysis of the performative process, providing a reasonably objective yet personalised assessment, encouraging the critical reflection and self-control necessary for metacognitive regulation.

– Multimedia tools – various applications, including interactive installations and tools for analysing choreographic experiments, facilitate the understanding of artistic choices and expressiveness of choreography, helping to activate metacognitive processes.

Prospects for further research consist of a detailed investigation of the potential of specific technologies in relation to the activation of metacognition in various artistic and performative activities of musicians and choreographers.

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Інформаційно-комунікаційні технології як чинник активізації метакогнітивного пізнання в мистецькій діяльності

Інга Олексіївна Хмелевська
кандидат педагогічних наук,
старший викладач кафедри музичного мистецтва і хореографії
ДЗ «Південноукраїнський національний педагогічний
університет імені К. Д. Ушинського»
ORCID: 0000-0001-9129-2173

Ганна Олександрівна Реброва
кандидат педагогічних наук,
викладач кафедри вокально-хорової підготовки
ДЗ «Південноукраїнський національний педагогічний
університет імені К. Д. Ушинського»
ORCID: 0000-0001-7128-7350

У дослідженні вивчається роль інформаційно-комунікаційних технологій (далі – ІКТ) в активізації метакогнітивного пізнання в художній діяльності, з особливим акцентом на музичному виконавстві та хореографії. Метакогнітивне пізнання, що визначається як усвідомлення й регулювання своїх когнітивних процесів, відіграє важливу роль у зазначених видах діяльності, оскільки сприяє саморегуляції, рефлексії та творчості. Обґрунтовано доцільність використання задля виконання завдань дослідження низки наукових підходів. Зокрема, міждисциплінарний підхід, який об'єднує ідеї з психології, мистецтвознавства та мистецької педагогіки, задля вивчення феномену метапізнання в контексті мистецької діяльності. Системно-функціональний підхід використовують для аналізу взаємозв'язків між різними елементами всередині мистецьких систем, включно з художніми методами й технологіями, які сприяють метакогнітивному розвитку. Компетентнісний підхід дав змогу виявити конкретні уміння, пов'язані з метакогнітивним пізнанням, тоді як опора на технологічний підхід сприяла визначенню ІКТ-інструментів, які сприяють активізації метакогнітивно-пізнавальних процесів для виконання художніх завдань. Проведене дослідження дало змогу вивчити феноменологію метапізнання в художньо-перформативній діяльності, визначити, що воно охоплює три основні виміри: декларативний, процедурний та умовний, і виконує функції поліпшення якості самоаналізу, саморегуляції, а також аналітично-творчих процесів у мистецькій діяльності. Уточнено, шо метакогнітивні процеси мають циклічну природу, адже містять аналіз, міркування, виконання, оцінювання, корекцію та повторення, які є взаємопов'язаними та суттєво важливими для художнього самовираження. Опора на обґрунтовану методологію дала змогу дослідити, як ІКТ можуть активізувати метакогнітивне пізнання, надаючи інструменти для планування, контролю та оцінювання мистецької діяльності. Результати показали, що відповідним потенціалом володіють інструктивні відео, онлайн-курси, цифрові звукові робочі станції, інтерактивні симулятори концертних виступів, відео– та звукозаписувальні інструменти, колаборативні платформи, технології віртуальної реальності (VR), технологія захоплення руху, платформи штучного інтелекту (AI). Перспективою подальших досліджень визначено вивчення потенціалу конкретних технологій щодо активізації метакогнітивного пізнання в різних видах художньо-перформативної діяльності музикантів і хореографів.

Ключові слова: *метакогнітивне пізнання, інформаційно-комунікаційні технології, мистецька діяльність, саморегуляція, рефлексивна практика, музичне виконавство, хореографія, міждисциплінарний підхід, системно-функціональний підхід, компетентнісний підхід, технологічний підхід.*