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STRUCTURE AND COMPONENTS OF THE PROCESS OF DEVELOPING STUDENTS' ART-PEDAGOGICAL ABILITIES IN A DIGITAL LEARNING ENVIRONMENT

Boltakova Roziya Xasan qizi
Jizzakh State Pedagogical University, Lecturer
E-mail: bultakovar@mail.com
Tel: +998 93 297 62 65

Abstract: This article analyzes the structure and components of the process of developing students' art-pedagogical abilities in a digital learning environment. It substantiates that the process of art-pedagogical abilities development consists of creative expression, the use of digital technological tools, creative thinking, and the integration of art into the educational process. The article provides a detailed description of four main components of this process: the creative-aesthetic, information and communication, pedagogical-methodological, and psychological components. The research findings can be used in developing pedagogical models aimed at enhancing future teachers' art-pedagogical abilities.

Keywords: art-pedagogical ability, digital learning environment, creative-aesthetic component, information and communication technologies, pedagogical integration, multimedia tools.

INTRODUCTION

In the modern education system, the rapid development of digital technologies is fundamentally transforming the structural components of pedagogical processes. In particular, art-pedagogical abilities, which are formed on the basis of the integration of art and pedagogy, are acquiring new dimensions in a digital environment (Eisner, 2002; Gardner, 2011). Art-pedagogical ability is defined as a teacher's capacity to enrich the educational process creatively and aesthetically through artistic means, as well as to develop students' artistic-creative and critical thinking skills (Medvedeva, 2018).

In a digital learning environment, this ability encompasses not only traditional artistic tools but also modern multimedia technologies, graphic design software, and virtual and augmented reality (VR/AR) tools. From this perspective, a scientific analysis of the structure and components of the process of developing students' art-pedagogical abilities becomes a highly relevant task.

The purpose of the research is to identify the structure and components of the process of developing students' art-pedagogical abilities in a digital learning environment and to scientifically substantiate their interrelationships.

Research objectives:

1. To determine the structure of the process of art-pedagogical abilities development;
2. To analyze the main components of this process;
3. To substantiate the interaction among the components.

MAIN PART

In a digital learning environment, the process of developing students' art-pedagogical abilities consists of creative expression, the use of technological tools, creative thinking, and the integration of art into the educational process. This process directs students not only to study art, but also to develop it creatively and to create a unique form of "pedagogical art" through modern technologies (Virtanen, 2019).

The development of art-pedagogical abilities in a digital learning environment includes the following key structural elements. Students create artistic products using various digital tools, such as graphic design software (Canva, Adobe Express), video editing programs (CapCut,

iMovie), and 3D modeling platforms (Blender, Tinkercad, Paint 3D). This process integrates creative thinking with technological skills.

For example, using the Canva platform, students are able to:

- create visual infographics;
- design interactive presentations;
- develop animated explanatory videos;
- design digital posters and booklets.

Information is presented in visual and interactive formats. Infographics, virtual galleries (Google Arts & Culture), and AR/VR technologies expand students' artistic knowledge and provide opportunities to apply it in practice.

Through virtual galleries, students can:

- take virtual tours of world museums;
- study famous works of art in detail;
- understand historical and cultural contexts;
- organize their own virtual exhibitions.

Students exchange creative ideas through digital forums, webinars, and online projects (Padlet, Jamboard, Google Sites). This component socializes the creative process and develops collaboration skills (Sullivan, 2010).

Collaborative activities include:

- working on group projects;
- receiving feedback through peer-to-peer assessment;
- developing creative ideas through brainstorming;
- organizing online exhibitions and presentations.

With the help of digital tools, the creative process and outcomes are assessed. Students monitor their activities, engage in self-assessment, and improve their performance. Through the e-portfolio system:

- creative works are systematically stored;
- development dynamics are monitored;
- reflective analysis is conducted;
- achievements are showcased.

The process of developing art-pedagogical abilities consists of four main components that function as an interconnected and complementary system.

Creative-Aesthetic Component

The creative-aesthetic component shapes students' artistic knowledge and skills. Through visual thinking, aesthetic perception, and creative imagination, it develops artistic and creative abilities.

The main elements of the creative-aesthetic component include:

- Visual literacy – understanding color theory, composition, perspective, and the concepts of symmetry and asymmetry;
- Aesthetic perception – the ability to perceive beauty, understand artistic values, and evaluate works of art;
- Creative imagination – creating new images, finding non-standard solutions, originality;
- Artistic skills – techniques for creating visual products using digital tools.

According to Eisner (2002), visual arts actively develop students' cognitive processes such as observation, analysis, synthesis, and evaluation.

Information and Communication Component

Within the information and communication component, students learn to understand and effectively use computers, the internet, specialized software, and multimedia tools. This component prepares them for active participation in the digital learning process.

The main directions of the information and communication component are:

- Digital literacy – skills in using modern software and platforms;
- Multimedia skills – integrating text, audio, video, and animations to create multi-format content;
- Online collaboration – using cloud technologies and synchronous and asynchronous working methods;
- Digital safety – information security, intellectual property, and copyright awareness.

According to the International Society for Technology in Education (ISTE), digital competence is a core requirement for modern educators (ISTE, 2023).

Pedagogical-Methodological Component

The pedagogical-methodological component includes integrating art into the teaching process, designing creative tasks, and applying methods that stimulate students' creative potential. Through this component, students' pedagogical abilities are developed.

The main elements of the pedagogical-methodological component are:

- Lesson design – integrating art-pedagogical elements into lesson structure and presenting content creatively;
- Differentiation – individualized approaches for students with different levels and interests;
- Scaffolding – step-by-step guidance and support for complex tasks;
- Formative assessment – monitoring the learning process, providing continuous feedback, and focusing on development.

According to Gardner's (2011) theory of multiple intelligences, teaching through visual-spatial intelligence allows educators to consider students' individual characteristics.

Psychological Component

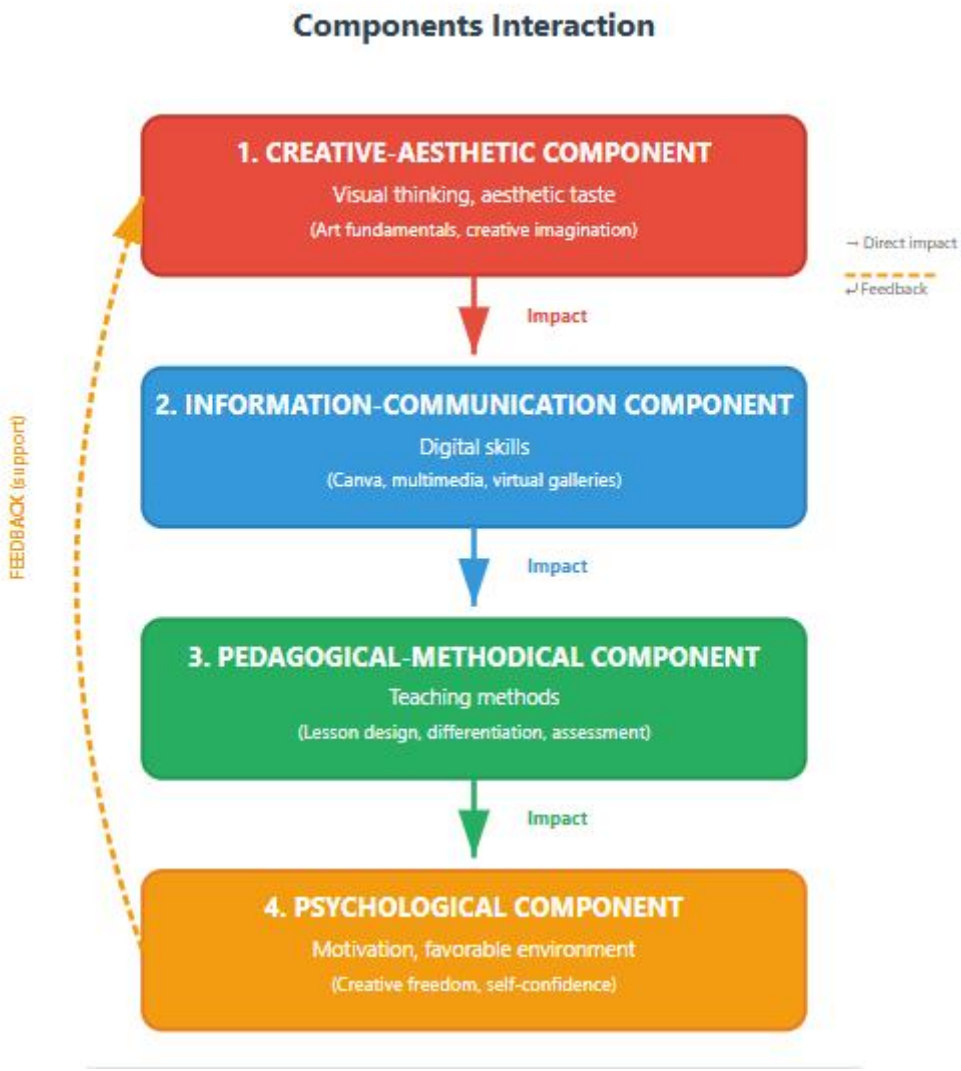
The psychological component enables students to experience freedom in the creative process, overcome stress, and enhance self-expression. It also creates a supportive psychological environment, which contributes to the effective development of creative potential.

The main aspects of the psychological component include:

- Motivation – intrinsic motivation (interest, desire for self-development) and the principles of Self-Determination Theory (Deci & Ryan, 2000);
- Emotional safety – freedom to experiment creatively without fear of making mistakes;
- Self-confidence – experience of success, positive feedback, and recognition of achievements;
- Reflection – awareness of one's creative process and identification of strengths and weaknesses.

According to Medvedeva (2018), art-pedagogical activity contributes to the development of students' emotional intelligence and ensures psychological stability.

The four components function as an interconnected system and complement one another.



Example of Integration:

When a student is creating the project *"Interactive Lesson for Children"*:

1. Creative-aesthetic component: Visual design, color selection, composition;
2. ICT component: Using Canva, PowerPoint, Kahoot;
3. Pedagogical-methodological component: Age-appropriate topic, clear learning objectives, interactive elements;
4. Psychological component: Creative freedom, self-confidence, reflection.

The harmonious interaction of these four components results in a high-quality pedagogical product.

Conclusion

According to the research findings, the process of developing students' art-pedagogical competencies in a digital learning environment has the following characteristics:

1. Structural aspect: The process consists of four main parts: digital creative platforms, interactive media, communication and collaboration, observation and assessment.
2. Component aspect: The process is composed of four interrelated components:
   - Creative-aesthetic component – develops visual thinking and aesthetic taste;

- Information and communication component – enhances digital literacy and multimedia skills;
- Pedagogical-methodological component – forms the methodology of teaching art;
- Psychological component – ensures a supportive creative environment and motivation.

3. Integration: All components interact with each other and function as a unified system, serving the comprehensive development of students' art-pedagogical competencies.

This systematic approach enables students to effectively organize artistic and creative activities using digital technologies and provides a solid theoretical and methodological foundation for developing practical models of art-pedagogical competency in future research.

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