as Living Labs for Sustainable Development: Supporting the Implementation of the Sustainable Development Goals. Springer: Berlin; Heidelberg, 2020. Pp. 497–514.

6. Suchikova Y., Tsybuliak N., Lopatina H., Shevchenko L., Popov A. Science in times of crisis. How does the war affect the performance of Ukrainian scientists? *Problems and Perspectives in Management*. 2023. Vol. 21, No. 1. Pp. 408–424.

7. Taylor B., Morphew C. Trends in Cost-sharing in the US and Potential International Implications. *High Educ Policy.* 2015. Vol. 28. Pp. 129–149.

8. United Nations Ukraine. Work on the Sustainable Development Goals in Ukraine. URL: https://ukraine.un.org/uk/sdgs (дата звернення : 01.03.2026).

KUROCHKA Valeriia
3rd-year Undergraduate Student (Bachelor's level)
Faculty of Physics, Mathematics, Computer and Technological Education
Berdyansk State Pedagogical University
BIELOVA-OLIINYK Yuliia
scientific supervisor PhD in Pedagogical Sciences, Associate Professor
Berdyansk

METHODOLOGY OF FORMING CREATIVE THINKING IN 8TH-GRADE STUDENTS DURING THE STUDY OF CROCHET TECHNOLOGIES

The topic of developing creative thinking through crochet is more relevant today than ever. In a world dominated by digitalization and rapid consumption, handmade work is transforming from a simple hobby into a powerful tool for self-development and psychological relief.

Degree of Research on the Problem. An analysis of the existing research shows that this issue lies at the intersection of several sciences: psychology, pedagogy, art history, and even neurophysiology. Despite the centuries-old history of the craft itself, a scientific approach to it as a tool for intellectual development has only begun to actively form in recent decades.

Purpose. The purpose of the work is to provide a theoretical substantiation of the impact of crochet classes on the level of creative thinking development in children and adolescents.

Research Methods. Analysis and synthesis: studying existing teaching methods for knitting/crocheting and theories of thinking development.Comparison: contrasting traditional teaching methods (strict copying of a sample) with innovative ones (experiments with shape and color).

Essence of the Research. Developing creative thinking through crochet is a journey from the mechanical repetition of patterns to the creation of unique art objects. This activity is ideal for brain training as it combines fine motor skills, spatial imagination, and mathematical calculation.

Demands of the Time: The modern labor market and society require individuals capable of non-standard problem-solving. The subject of "Technology" has a unique potential for developing essential skills, particularly creativity.

Age Specifics: 8th-grade students are in a period of active self-assertion. Crochet ceases to be just a craft and becomes a tool for self-expression and the creation of a unique image.

Ways to develop creative potential: The primary method is moving away from ready-made templates. The first step toward creativity is modifying existing instructions (adding new elements, replacing patterns, or changing the product's shape). Using non-traditional materials (cords, ribbons, wire, shredded fabric) forces the brain to seek new technical solutions.

Creativity in crochet involves not only technical mastery but also the ability to combine (mixing different patterns), transform (changing the product's purpose), and predict the aesthetic result. Key indicators include: speed of ideas, flexibility (switching from one style to another), originality, and the ability to refine details.

Adolescence is unique because the components of a child's creativity—creative thinking, creative imagination, and creative literacy—are in an active stage of formation. It should be noted that adolescents are characterized by cognitive activity and the emergence of new learning motives, which allows them to work creatively and independently, intensively developing creative thinking that influences all other cognitive processes [1].

Methods for fostering creativity in lessons:

Focal Object Method: Transferring characteristics of random objects to the crochet project (e.g., combining a "cactus" shape with the functionality of a "small item organizer").

"Unfinished Product" Method: Students are given a basic crocheted element (e.g., a simple circle) and must come up with the most diverse options for decoration or transformation.

Brainstorming for Project Selection: Collective discussion of modern trends (amigurumi, micro-crochet, oversized accessories).

Moving Beyond the Sample: Simply repeating the teacher's sample limits imagination. Creativity begins where the student is given the right to choose color, texture, or pattern variations. The Project Method also stimulates creativity—transitioning from performing individual exercises to realizing one's own concept (from idea and sketch to the finished product).

Stages of a Creative Project:

Search and Analytical: Researching existing analogues via Pinterest or Instagram. It is crucial to teach students to interpret rather than copy.

Design: Developing a custom pattern or modifying a standard one. Choosing non-traditional yarn (T-shirt yarn, jute, polyester cord).

Technological: Experimenting with texture. Using "freeform" crochet techniques.

Presentation: Justifying the uniqueness of the product.

Design Thinking in Crochet: The student learns to think like a designer: "Who is this product for? What function does it serve? How can I make it not only beautiful but also convenient?". Visualizing the future product on paper before starting work develops spatial imagination.

Color and Texture as Tools for Self-Expression: Studying color theory allows for creating unexpected visual effects even with simple stitches. Using "popcorn" stitches, puff stitches, and relief elements adds architectural depth to the piece.

Using Mistakes as Creative Impulses: In technology lessons, it is vital to teach students that an "incorrect" stitch can be the start of a new texture. A defect in a pattern can become the basis for a new original design. Creative thinking allows one not to unravel the piece but to incorporate the mistake as a decorative element. Collaborative problem-solving develops critical thinking and mental flexibility.

Cross-Curricular Links and Innovations:

Math and Geometry in Stitches: Calculating stitches for 3D shapes (spheres, cones, spirals, hyperbolic planes) helps students understand the applied side of science and create complex amigurumi toys.

Ecological Thinking (Upcycling): Crocheting with strips of old clothing or plastic bags fosters responsible consumption and creative reimagining of materials.

Combining Techniques: Mixing crochet with embroidery, beads, leather, or fabric expands the boundaries of the traditional craft.

Psychological and Therapeutic Aspect: This is the most researched niche. Scientists (e.g., Bernadette Russell, Betsan Corkhill) actively study the phenomenon of "therapeutic knitting." Crochet lowers cortisol levels and stimulates dopamine production. It has evolved into a form of cognitive training. Rhythmic movements and counting stitches activate both hemispheres of the brain, contributing to:

Stress relief and achieving a "flow" state.

Improved concentration.

Development of fine motor skills linked to speech and intellectual centers.

Creativity: Research shows the relaxation achieved during monotonous crochet work is the ideal foundation for "insights"—sudden creative ideas.

Key Conclusions: The development of creative thinking in technology lessons through crochet is not just about mastering technical skills, but about forming the student's ability to create new intellectual and material products. The teacher's role is to encourage experimentation, ask open-ended questions, and create a safe environment for trying new things. To maximize creativity, it is recommended to implement "freeform" exercises where rules are absent and intuition becomes the primary tool.

REFERENCES

1. В.Павленко.Особливості розвитку креативності дітей підліткового віку. Професійна освіта в умовах інтеграційних процесів:теорія і практика : збірник наукових праць.Житомир:ФОП : Левковець,2017.ч.1.с.89-94.
2. Державний стандарт базової середньої освіти. URL:https://osvita.ua/legislation/Ser_osv/76886/ (дата звернення 17.03.2026).
3. М.Пелагкйченко «Професійний довідник учителя трудового навчання».Харків : Вид.група «Основа», 2023. 254с.
4. Модельні навчальні програми з трудового навчання (технологій) для 5–9 класів. URL:https://osvita.ua/school/program/program-5-9/83196/ (дата звернення 17.03.2026)