Maksym BATURIN, Hanna KORNIUSH

STEAM LEARNING TECHNOLOGIES IN THE SYSTEM OF VOCATIONAL TRAINING OF PSYCHOLOGY STUDENTS

A STEAM system is an educational approach that integrates science, technology, engineering, arts, and mathematics into a comprehensive learning experience. STEAM education is designed to prepare students for the jobs of the future by developing critical thinking, creativity, and problem-solving skills.

In the STEAM system, students are encouraged to explore real-world problems through hands-on projects that interconnect multiple disciplines.

STEAM education also emphasizes the importance of creativity and art in the learning process. Artistic expression helps students better understand and communicate complex scientific and mathematical concepts, fostering innovation and imagination.

Educating psychologists in STEAM systems requires an interdisciplinary approach that emphasizes the integration of science, technology, engineering, art, and mathematics. STEAM systems help university teachers create more hands-on, interactive learning environments and engage students in meaningful ways. STEAM also develops soft skills that psychologists need to work with clients.

Although, at first glance, it may seem that technical sciences are unnecessary for psychologists, this is not the case. Scientists have found that brain function improves when both lobes of the brain work and are trained, i.e. the right lobe, which is responsible for abstract thinking, and the left lobe, which is responsible for logic. This is exactly what STEAM does. STEAM allows immersing more in the sciences and their logic. It can help future psychologists develop their logical reasoning and be better at understanding connections, deducing and drawing conclusions.

In addition, STEAM can also enhance psychologists' creativity and problem-solving abilities. Incorporating art and design into practice enables psychologists to develop new and innovative approaches to therapy and better understand the needs of their clients. It fosters collaboration and communication, resulting in a more holistic and integrated approach to working with clients and patients.

To implement STEAM technologies in the process of training psychology students, an educator can start by designing a lesson plan that integrates the five STEAM

components. For example, a memory psychology class might involve using digital technology to create interactive visual aids or examining the mathematics behind memory retrieval.

Additionally, educators can use a variety of STEAM-based tools and platforms, such as coding programs and virtual reality software, to enhance student learning experiences. This not only makes the learning process more exciting, but also prepares students for the technological challenges of modern society.

It is also important that educators encourage creativity and innovation in their students. Incorporating art and design thinking into academic classes for psychology students encourages learners to think outside the box and come up with creative solutions to complex problems.

In summary, incorporating STEAM education into psychology programs will help prospective psychologists gain a more complete understanding of their clients' backgrounds and needs. By integrating knowledge and skills from different disciplines, learners will be able to develop innovative solutions and interventions. This approach can improve the effectiveness of psychotherapy and contribute to the development of a more diverse and comprehensive understanding and mastering of psychology. In addition, STEAM training helps psychology students develop the skills and familiarize themselves with the tools they need to conduct interdisciplinary research, collaborate with experts from a variety of disciplines, and tackle complex social and professional challenges.

References:

1. Psychology's role in STEAM education. URL: https://peopledevelopmentmagazine.com/2018/12/16/psychologys-role-in-stem-education/

2. Calling psychology education what it is: STEM. URL: https://www.apa.org/monitor/2014/07-08/sd

3. A Curriculum Integrating STEAM and Maker Education Promotes Pupils' Learning Motivation, Self-Efficacy, and Interdisciplinary Knowledge Acquisition. URL: https://www.frontiersin.org/articles/10.3389/fpsyg.2021.725525/full

4. STEM. URL: https://www.apa.org/pubs/reports/stem-discipline

5. Support for psychology. URL: https://www.stem.org.uk/resources/elibrary/resource/416732/support-psychology

6. What is STEAM Education? URL: https://artsintegration.com/what-is-steam-education-in-k-12-schools/#whysteam