WEB OF SCIENTIST: INTERNATIONAL SCIENTIFIC RESEARCH JOURNAL
ISSN: 2776-0979, Volume 4, Issue 10, Oct., 2023

METHODOLOGY FOR TEACHING FUTURE INFORMATICS TEACHERS TO PROPERLY DESIGN A LESSON AND EFFECTIVELY ORGANIZE A REINFORCEMENT SECTION OF THE LESSON

D. X. Makhkamova
Teacher of Kokand State Pedagogical Institute

Anotation:
This article is aimed at planning the lesson process for future informatics teachers, and the article gives some recommendations and conclusions on the effective and interactive organization of the reinforcement phase of the lesson. Also, there are recommendations on how to use digital pedagogical technologies that can be used during the lesson.

Keywords: education, internet, reinforcement, interactive, digital pedagogical technologies, integration, online courses, multimedia, technology.

When teaching future teachers about the correct distribution of time during a lesson, it's important to emphasize the effective use of instructional time to maximize student engagement and learning.

Lesson Planning: Teach future teachers the importance of thorough lesson planning. Encourage them to clearly define lesson objectives, identify key content and skills to be taught, and select appropriate instructional strategies and materials.

Introduction and Engagement (10-15% of total time): Emphasize the significance of a strong lesson introduction to capture students' attention and create relevance. Encourage teachers to use engaging hooks, ask thought-provoking questions, or use multimedia resources to generate interest and activate prior knowledge.

Direct Instruction (30-40% of total time): Direct instruction involves presenting new information, concepts, or skills to students. Encourage future teachers to use a variety of instructional methods such as lectures, demonstrations, and multimedia presentations. However, it's important to keep direct instruction concise, clear, and focused to maintain student engagement.

Guided Practice (20-30% of total time): Allocate time for guided practice activities where students can apply the new knowledge or skills with the teacher's support. This can include small-group discussions, hands-on activities, or worksheets. Monitor students' progress during this phase and provide timely feedback and clarification as needed.

Independent Practice (20-30% of total time): Allow students time to work independently on tasks that reinforce and extend their learning. This can include

individual assignments, projects, or problem-solving activities. Encourage future teachers to provide clear instructions and resources to support students' independent practice.

Closure and Review (5-10% of total time): Dedicate time at the end of the lesson for summarizing key points, reviewing essential concepts, and assessing students' understanding. Future teachers should emphasize the importance of closure to reinforce the lesson's main ideas and provide a sense of closure for students.

Transitions and Classroom Management: Teach future teachers the significance of smooth transitions between different activities and strategies to effectively manage classroom time. Encourage them to plan transition activities or routines to minimize disruptions and keep students focused.

Flexibility and Reflection: Remind future teachers to be flexible and responsive to students' needs during the lesson. Encourage them to reflect on the pacing and effectiveness of their lesson delivery, making adjustments as necessary to ensure optimal learning outcomes.

Lastly, emphasize the need for continuous professional development and the importance of observing experienced teachers to gain insights into effective time management strategies.

It is important to organize the reinforcement time in the lesson in order to strengthen the students' learning during the lesson. There are several effective methods that can be used to reinforce the topic during a lesson. These methods help solidify students' understanding of the content and enhance their retention. Here are some examples:

Recap and Review: Take a few moments during the lesson to recap what has been covered so far. Summarize the key points, concepts, or skills that have been taught. Encourage students to ask questions or provide their own summary of the material. This helps reinforce the information and ensures that everyone is on the same page.

Questioning and Discussion: Engage students in meaningful discussions by asking thought-provoking questions related to the topic. Encourage students to share their ideas, perspectives, and insights. This allows them to deepen their understanding, clarify any misconceptions, and make connections to real-life situations.

Formative Assessment: Incorporate quick formative assessments during the lesson to check students' comprehension. This can be done through quizzes, exit tickets, short written responses, or online polling tools. Analyze the results to identify areas where students may need additional support or clarification.

Hands-on Activities: Provide hands-on activities or demonstrations that allow students to actively engage with the content. This can include experiments,

simulations, role plays, or group projects. Hands-on activities help students apply their knowledge, reinforce important concepts, and make learning more memorable.
Graphic Organizers and Visuals: Use graphic organizers, concept maps, diagrams, or visual aids to help students organize and visualize the information. These tools can be used to summarize key points, illustrate relationships between ideas, or highlight important vocabulary. Visual representations aid in memory retention and provide a visual reference for students to reinforce their understanding.
Cooperative Learning: Incorporate cooperative learning strategies where students work together in pairs or small groups. Assign tasks or problems that require collaboration and encourage students to explain concepts to one another. This fosters peer-to-peer teaching, reinforces understanding, and promotes active engagement.
Technology Integration: Utilize technology tools such as interactive whiteboards, educational apps, online simulations, or multimedia resources to reinforce the topic. These tools can provide interactive experiences, virtual demonstrations, or supplementary materials that support and extend the lesson content.
Real-Life Connections: Help students see the relevance of the topic by making connections to real-life situations or examples. Relate the content to their own experiences, current events, or practical applications. This helps students understand the practical value of what they are learning and reinforces its importance.
By incorporating a combination of these methods, teachers can reinforce the topic during the lesson, deepen students' understanding, and promote long-term retention of the material. It's important to choose strategies that align with the learning goals and the needs of the students.
Technology integration can be a powerful tool to reinforce the topic and enhance student learning. Multimedia Presentations: Use presentation software like PowerPoint or Google Slides to create visually engaging slideshows that reinforce key concepts. Include relevant images, videos, animations, and interactive elements to illustrate the content and make it more memorable for students.
Interactive Websites and Apps: Explore educational websites and apps that provide interactive activities, simulations, and games related to the topic. These resources can offer hands-on practice, virtual experiments, or simulations that allow students to explore concepts in a dynamic and engaging way.
Virtual Field Trips: Take students on virtual field trips using platforms like Google Earth, virtual museum tours, or educational websites. These virtual experiences allow students to explore different locations, historical sites, or natural wonders related to the topic. It provides a rich context for learning and can spark students' curiosity.

Online Discussions and Collaborative Tools: Utilize online discussion platforms or collaboration tools to facilitate asynchronous or synchronous discussions among students. Platforms like Google Classroom, Padlet, or discussion forums enable students to share their ideas, ask questions, and collaborate on projects related to the topic.

Data Analysis and Visualization: Use spreadsheets or data analysis tools to explore and visualize data related to the topic. Students can analyze real-world data, create charts or graphs, and draw conclusions. This helps develop data literacy skills and allows students to see the practical applications of the topic.

Digital Simulations and Models: Utilize interactive simulations or digital models to help students understand complex concepts or processes. These tools can provide a visual representation of abstract ideas, allowing students to manipulate variables, observe cause-and-effect relationships, and deepen their understanding.

Online Research and Information Gathering: Encourage students to conduct online research using reliable sources to explore the topic further. Teach them how to effectively search for information, critically evaluate sources, and cite their references. This develops digital literacy skills and promotes independent learning.

Flipped Classroom Approach: Consider using the flipped classroom model, where students watch instructional videos or engage with online resources before the lesson. This allows classroom time to be spent on reinforcing the topic through discussions, collaborative activities, and hands-on applications.

When incorporating technology, it's important to consider the availability of resources, the learning objectives, and the needs of the students. Ensure that the technology used is accessible, user-friendly, and aligned with the curriculum. Additionally, provide clear guidelines and expectations for responsible and ethical technology use.

References:

1. D. X. Makhkamova. “THE IMPORTANCE OF DISTANCE LEARNING TECHNOLOGIES IN THE TRAINING OF FUTURE INFORMATICS TEACHERS”. *Academia Repository*, vol. 4, no. 10, Oct. 2023, pp. 86-89, https://academiarepo.org/index.php/1/article/view/3.

2. I. M. Rasulov, D. X. Makhkamova, and D. M. Gofforova. “POSSIBILITIES, ADVANTAGES AND DISADVANTAGES OF USING THE GOOGLE CLASSROOM PLATFORM IN THE EDUCATIONAL PROCESS”. *Conferencea*, Apr. 2023, pp. 199-02, https://conferencea.org/index.php/conferences/article/view/2420.

3. D. X. Makhkamova. “METHODOLOGY OF FORMATION OF FREELANCING SKILLS OF FUTURE TEACHERS OF INFORMATICS AND INFORMATION TECHNOLOGIES THROUGH THE SUBJECT OF INFORMATICS AND DIGITAL TECHNOLOGIES”. *Conferencea*, Mar. 2023, pp. 55-64, https://conferencea.org/index.php/conferences/article/view/2185.
4. D. X. Makhkamova. “IMPROVING THE METHODOLOGY OF USING SOFTWARE TOOLS FOR THE FUTURE INFORMATICS AND INFORMATION TECHNOLOGY TEACHER”. *E Conference Zone*, Jan. 2023, pp. 64-69, https://econferencezone.org/index.php/ecz/article/view/1912.
5. D. X. Makhkamova. “THE ADVANTAGES OF USING THE POSSIBILITIES OF INFOGRAPHICS IN THE WORK OF FUTURE INFORMATICS AND INFORMATION TECHNOLOGY TEACHERS”. *Open Access Repository*, vol. 9, no. 3, Mar. 2023, pp. 291-8, doi:10.17605/OSF.IO/K4UWE.