EFFECTIVE METHODS OF ORGANIZING EXTRACURRICULAR ACTIVITIES IN COMPUTER SCIENCE

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ANOTATION

In this article, computer science extracurricular activities are aimed at developing valuable skills in students, conclusions and recommendations are given on how to organize extracurricular activities effectively and interactively.

Keywords: education, interactive, homework, programming, programmer, creativity and innovation, teamwork and collaboration, technology.

Organizing extracurricular activities in computer science can help students further explore the field, develop their skills, and foster a passion for technology. Here's a methodology to organize such activities effectively:

Identify Goals and Objectives: Define the goals and objectives of the extracurricular activities. Determine what you want students to achieve through these activities, such as improving programming skills, exploring new technologies, or fostering teamwork and creativity. Clearly articulate the learning outcomes you aim to achieve.

Form a Dedicated Team: Gather a team of educators, industry professionals, or volunteers who are passionate about computer science and willing to support the extracurricular activities. Assign roles and responsibilities, ensuring that each team member contributes their expertise and skills.

Determine Activity Types: Decide on the types of extracurricular activities to offer. These can include coding clubs, hackathons, robotics competitions, web development workshops, game development projects, guest speaker sessions, or field trips to technology companies. Consider offering a variety of activities to cater to students' diverse interests and skill levels.

Create a Schedule and Plan: Develop a schedule and plan for the activities. Determine the frequency, duration, and timing of the sessions. Consider the availability of participants and align the schedule with other school commitments. Create a detailed plan outlining the activities, resources needed, and any necessary preparation or prerequisites.

Secure Resources and Funding: Identify the resources and funding required to support the extracurricular activities. This can include computer hardware, software licenses, learning materials, guest speakers, or field trip expenses. Seek support from school administration, local businesses, or technology-focused organizations to secure the necessary resources and funding. Promote and Recruit Participants: Advertise the extracurricular activities to students and generate interest. Utilize various communication channels, such as school announcements, posters, newsletters, and social media platforms. Clearly communicate the benefits and opportunities that participation in these activities can provide. Encourage students from diverse backgrounds and skill levels to participate.

Provide Training and Support: Ensure that students receive adequate training and support throughout the activities. Offer workshops or training sessions to build foundational skills and introduce new concepts. Provide mentors or experienced volunteers who can guide and support

students during their projects. Encourage participants to ask questions, seek help, and collaborate with their peers.

Showcase and Celebrate Achievements: Organize events or showcases to celebrate the achievements of participants. This can include project presentations, demonstrations, or competitions where students can showcase their work. Recognize and reward students' efforts and accomplishments, fostering a sense of pride and motivation.

Evaluate and Reflect: Regularly evaluate the effectiveness of the extracurricular activities. Collect feedback from participants, mentors, and volunteers to identify areas of improvement. Reflect on the learning outcomes, participant engagement, and overall success of the activities. Use this feedback to make necessary adjustments and enhancements for future iterations.

Foster Community and Networking: Encourage participants to engage with the wider computer science community. Facilitate opportunities for students to connect with industry professionals, attend conferences, or participate in coding competitions. Promote networking and collaboration to inspire students and expose them to real-world applications of computer science.

Remember to create a safe and inclusive environment that welcomes students of all backgrounds and skill levels. Provide equal opportunities for participation and ensure that the activities are accessible and engaging. By following this methodology, you can organize extracurricular activities in computer science that inspire and empower students to explore the field and pursue their interests.

Computer science extracurricular activities offer numerous benefits to students, both academically and personally. Here are some key advantages of engaging in computer science extracurricular activities:

Skill Development: Computer science activities provide opportunities for students to develop and enhance their technical skills. They can learn programming languages, software development, web design, data analysis, robotics, or other specialized areas. These skills are highly valuable in today's technology-driven world and can open up future career options.

Problem-Solving and Critical Thinking: Computer science activities promote problem-solving and critical thinking skills. Students learn to analyze complex problems, break them down into smaller components, and develop logical solutions. They develop the ability to think critically, evaluate options, and make informed decisions. These skills are applicable not only in computer science but also in various other disciplines and real-life situations.

Creativity and Innovation: Computer science activities encourage creativity and innovation. Students have the opportunity to design and develop their projects, explore new ideas, and think outside the box. They learn to approach challenges with creativity and develop innovative solutions. This fosters an entrepreneurial mindset and prepares students for future technological advancements.

Teamwork and Collaboration: Many computer science activities involve teamwork and collaboration. Students work together on projects, share ideas, and solve problems collectively. They learn to communicate effectively, delegate tasks, and leverage each other's strengths. Collaboration promotes a sense of community and helps students develop essential teamwork skills that are valuable in professional settings.

Career Exploration and Preparation: Computer science activities provide students with insights into potential career paths in technology-related fields. They can gain exposure to various areas of computer science and explore their interests. Engaging in extracurricular activities can help students make informed decisions about their educational and career paths. It also provides them with a competitive edge when applying for college or pursuing internships and jobs.

Confidence and Self-Esteem: Successfully completing computer science activities and projects can boost students' confidence and self-esteem. As they develop skills and overcome challenges, they gain a sense of accomplishment and pride. This confidence extends beyond computer science and positively impacts their overall academic performance and personal development.

Networking and Mentorship Opportunities: Computer science extracurricular activities often provide opportunities for students to connect with industry professionals, mentors, and likeminded peers. They can attend workshops, conferences, or competitions where they interact with experts in the field. Building a network and connecting with mentors can offer guidance, career advice, and potential internship or job opportunities.

Real-World Application of Knowledge: Computer science activities bridge the gap between theoretical knowledge and its practical application. Students can apply what they learn in the classroom to real-world projects, solving authentic problems. This hands-on experience enhances their understanding and demonstrates the relevance of computer science concepts in everyday life.

Personal Growth and Lifelong Learning: Engaging in computer science extracurricular activities nurtures a passion for learning and fosters a growth mindset. Students develop a curiosity to explore new technologies, keep up with industry trends, and pursue continuous learning. They become lifelong learners, staying updated with advancements in computer science throughout their personal and professional journeys.

Computer science extracurricular activities provide a platform for students to develop valuable skills, explore their interests, and prepare for future opportunities. They foster a passion for technology, promote critical thinking, and equip students with essential skills applicable across various domains.

REFERENCES

"THE D. Χ. IMPORTANCE OF DISTANCE LEARNING 1. Makhkamova. TECHNOLOGIES IN THE TRAINING OF FUTURE INFORMATICS TEACHERS". Academia Repository. vol. 10. Oct. 2023.86-89, 4. no. pp. 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.