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# PRINCIPLES BASED ON THE USE OF CLOUD-BASED ENVIRONMENTS IN ORGANIZING STUDENTS' EXTRACURRICULAR EDUCATIONAL ACTIVITIES IN GEOGRAPHY

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**Abstract:** This article presents the principles used by secondary school students when using cloud-based environments to organize extracurricular educational activities for students in geography. The possibilities of the principles are also highlighted.

**Keywords:** cloud-based environment, principle, platform, didactic; psychological; technological; organizational, communicative.

In today's digitalization environment, it is necessary to use cloud-based environments in organizing extracurricular geography activities for secondary school students. Cloud-based educational environments allow students to study geography independently, work in collaboration, effectively use modern digital educational technologies, and develop competencies for applying geographical knowledge in practical activities. As a result, students' extracurricular activities create a more interactive, innovative, and student-centered environment.

Therefore, it is necessary to use cloud-based environments when organizing extracurricular educational activities for students in geography. To achieve this, it is first necessary to clarify and rely on the principles used when using cloud-based environments in organizing students' extracurricular educational activities in geography.

In this regard, i.e., the principles underlying the teaching of disciplines based on computer technologies in the continuous education system are reflected in the research works of many scholars, including the management of internal networks in education by N.N. Khakhonova [1], T.V. Plakhotya [1], the creation and use of electronic educational resources for distance learning by I.V. Serzhenko [2], M.H. Lutfillaev [3], A.V. Obrubova [4], J.J. Karbozova [5], electronic textbooks by A.A. Abdukadirov [6], electronic educational and methodological complexes by U.Sh. Begimkulov [163], N.I. Taylakov [163], R. Khamdamov [7], and the use of information and communication technologies (ICT) in the educational process by V.A. Krasilnikova [8], L.A. Mierin [9], and E.V. Zarukina [9].

Based on the analysis of the works of these scholars, it is proposed to rely on the following principles for using cloud-based environments in organizing students' extracurricular educational activities in geography: didactic, psychological, technological, organizational, and communicative.

**Didactic principles:**

The principle of scientificity. This principle means that geographical information should be based on scientifically grounded, reliable, and modern sources. The principle of scientificity requires the introduction of clearly formalized digital educational materials for the use of cloud-based learning environments in organizing extracurricular activities in general secondary school education, including geography, and arming students with scientific concepts appropriate for their age.

The principle of systematicity and consistency. This principle implies that digital teaching aids developed for students' extracurricular educational activities in geography are arranged in a logical sequence, ensuring their mastery from simple to complex.

*The principle of consciousness and activity.* The proposed principle is aimed at providing students with the opportunity to conduct independent research in geography through cloud platforms, actively working with maps, statistical data, and multimodal tools.

*The principle of visual clarity.* This principle implies the use of interactive maps, satellite imagery, videos, animations, and infographics related to geography in students' extracurricular educational activities.

*The principle of individualization and differentiation.* This principle dictates that in the extracurricular educational activities of students in geography, it is necessary to focus on providing tasks that correspond to the abilities, interests, and level of knowledge of each user through cloud learning environments.

*The principle of independent learning.* This principle implies that in extracurricular geography activities, students must access educational materials at any time and place, complete assignments, and independently develop their knowledge using digital teaching aids placed in cloud-based learning environments.

*The principle of collaborative learning.* The proposed principle involves various project work, online discussions, and the joint development of digital educational tools through cloud-based learning environments to organize students' extracurricular activities in geography.

*The principle of convenience and continuity.* This principle provides for the continuous use of digital educational tools placed in cloud-based environments in students' extracurricular activities in geography, ensuring an organic connection between the lesson and extracurricular activities.

*The principle of feedback and evaluation.* The proposed principle requires the teacher to observe students' extracurricular activities in geography online, provide prompt feedback, and evaluate results electronically.

*The principle of practical orientation.* This principle involves organizing geographical projects, GIS elements, virtual excursions, and environmental observations in a cloud environment during students' extracurricular activities, linking theoretical knowledge with practical activity.

***Psychological principles:***

The principle of increasing motivation. The proposed principle implies increasing students' motivation through cloud-based educational environments in extracurricular geography activities. In this case, it is advisable to provide interactive tasks, multimedia tools, and project work.

The principle of taking into account age and individual characteristics. This principle requires adapting the tasks provided when conducting students' extracurricular educational activities in geography through cloud-based learning environments to their age, psychological development, and cognitive abilities.

*The principle of supporting cognitive activity.* This principle implies the organization of activities aimed at analyzing, comparing, generalizing, and solving problematic situations through the use of cloud-based educational environments in students' extracurricular activities in geography.

*The principle of a positive emotional environment.* This principle implies that the cloud educational environment proposed for geography provides the student with the opportunity to think freely, express their opinion, and learn without fear of making mistakes.

*The principle of reflection and self-assessment.* This principle implies the placement of the following in cloud-based educational environments for extracurricular geography activities: students can analyze and develop their knowledge through quarterly and final electronic tests, portfolios, and online feedback.

*The principle of communicative development.* This principle requires compliance with the following when organizing students' extracurricular educational activities in geography through a flood-based learning environment: focusing on forums, video conferences, and group projects to develop students' communication culture and social skills.

*The principle of psychological safety.* The proposed principle implies that the cloud-based educational environment used for extracurricular geography activities must ensure the protection of students' personal data and communication based on respect and mutual trust.

**Technological principles:**

*The principle of digital infrastructure availability.* This principle implies that the educational process must be provided with a stable global internet connection, computers, tablets, or mobile devices, as well as modern software. As a result, students will be able to effectively organize extracurricular activities in geography.

*The principle of efficient use of cloud services.* The proposed principle ensures the effective use of cloud platforms for storing, presenting, and editing educational materials related to geography.

*The principle of adaptability.* This principle implies that a cloud-based educational environment for students' extracurricular activities in geography must operate with equal efficiency across various operating systems and devices and be able to adapt to user needs.

*The principle of interactivity.* This principle involves rapid communication between students and teachers through cloud-based educational environments and the execution of online geography assignments.

*The principle of integration.* This principle requires that cloud platforms be integrated with geographic information systems (GIS), electronic maps, video conferencing services, and other digital educational tools.

*The principle of information security.* This principle means that users' personal data must be protected, data must be backed up, and secure authentication mechanisms must be used.

*The principle of continuous use.* This principle requires that students have the opportunity to use digital geography teaching aids at any time and in any place during extracurricular activities.

*The principle of automated control.* The proposed principle implies that the distribution, acceptance, evaluation, and monitoring of students' geography assignments must be carried out through automated means.

*The principle of scalability.* This principle implies that the cloud educational environment should function effectively in accordance with the increase in the number of users or the expansion of the volume of digital educational tools in students' extracurricular activities in geography.

*The principle of monitoring and analysis.* This principle implies that a cloud-based platform must possess analytical tools that allow for the analysis of students' activity in geography, the level of assignment completion, and academic performance results.

***Organizational and communicative principles:***

*The principle of mass learning.* In extracurricular activities, students master subjects based on their individual abilities. The pace of learning is established based on the student's wishes and personal circumstances [1, 2, 6]. Therefore, the study of geography should be conducted in a free and flexible manner, ensuring that the student completes the assigned tasks in a manner convenient for them. In this case, the student independently determines the duration of the lesson.

*The principle of free access to information and educational materials*. It is necessary to develop open education that provides users with the opportunity to read, download, copy, distribute, and print the cloud environment created for the subject of Geography.

*The principle of social equality.* Extracurricular educational activities organized in geography based on cloud-based learning environments must be uniform regardless of the student's place of residence, family circumstances, health status, nationality, or social status.

*In conclusion, it is necessary to follow the principles proposed within the framework of the study to use cloud-based environments in organizing extracurricular educational activities for students in geography.*

**References**

1. Хахонова Н.Н., Плахотя Т.В. Принципы построения системы внутреннего контроля в образовательных учреждениях // Вестник. –Адыгейского государственного университета. Серия 5: Экономика. – 2010. – № 2. – С. 130-138.
2. Серженко И.В. Дидактические принципы ДО // Инновации в образовании. 2006. – №2. – С.69-77.
3. Lutfillaev M.H. Theory and practice of integrating information technologies in improving the educational process of higher education (on the example of computer science and natural sciences) // Dissertation for the degree of Doctor of Pedagogical Sciences. - Tashkent, 2007. – 246 p.
4. Обрубова А. В. Формирование структурно-функциональной модели электронно-образовательного ресурса по искусствознанию в условиях вузовской подготовки педагога-художника // Дисс... на соиск. учен. степ, канд. пед. наук. – Санкт-Петербург, 2015. – 239 с.
5. Карбозова Ж.Ж. Подготовка будущих учителей к проектированию электронных образовательных ресурсов // Дисс... на соиск. учен. степ, канд. пед. наук. – Душанбе, 2017. – 175-б.
6. Abdukodirov A., Pardaev A. Theory and Practice of Distance Learning // Monograph. - Tashkent, 2009. –146 p.
7. Khamdamov R., Begimkulov U., Taylakov N. Electronic educational and methodological complexes // Manual. - Tashkent, 2010. –144 p.
8. Красильникова В.А. Использование информационных и коммуникационных технологий в образовании // Учебное пособие. –Оренбург, 2012. – 291 с.
9. Миэринь Л.А., Быкова Н.Н., Зарукина Е. В. Современные образовательные технологии в вузе // учеб .- метод. пособие. – СПб . : Изд-во СПбГЭУ , 2015. – 169 с.