

## APPLICATION OF PEDAGOGICAL TECHNOLOGIES IN TEACHING GEODESY

**Abdujabborova Mukhlisa**

*Graduate student of Fergana Polytechnic Institute.*

**Abstract:** *Geodesy is a fundamental subject in civil engineering, which requires a significant amount of mathematical and theoretical concepts to be thoroughly understood. This article aims to explore the application of pedagogical technologies in teaching geodesy. The main focus of the study is to analyze the effectiveness of pedagogical tools in enhancing students' understanding of geodesy concepts. The article also discusses the advantages and limitations of using pedagogical technologies in teaching geodesy. The study was carried out by conducting a survey of geodesy students and analyzing their feedback on the utilization of pedagogical technologies in their learning process. The results of the study suggest that incorporating pedagogical technologies in geodesy classes can significantly improve students' comprehension and academic performance.*

**Keywords:** *Geodesy, Pedagogical Technologies, Teaching, Learning, Civil Engineering.*

### **Introduction:**

Geodesy is a critical subject in civil engineering, which involves the measurement and representation of the earth's surface. It is an essential part of the design and construction of infrastructure projects, such as highways, bridges, and buildings. Geodesy is a complex subject that requires a deep understanding of mathematical and theoretical concepts. Therefore, it is crucial to use effective teaching strategies to enhance students' comprehension of the subject. Pedagogical technologies are one of the most efficient ways to promote active learning and engage students in the learning process. This article aims to explore the effectiveness of pedagogical technologies in teaching geodesy.

### **Methods:**

The study was carried out by conducting a survey of geodesy students. The survey included questions about the utilization of pedagogical technologies in their learning process. The students were asked about the effectiveness of pedagogical tools such as videos, simulations, and interactive software in enhancing their understanding of geodesy concepts. The survey was conducted over a period of 6 months, and the data was analyzed using statistical software.

### **Results:**

The results of the study suggest that incorporating pedagogical technologies in geodesy classes can significantly improve students' comprehension and

academic performance. The majority of students reported that the use of pedagogical tools such as videos, simulations, and interactive software had a positive impact on their learning experience. The students found these tools to be engaging, interactive, and helpful in understanding complex geodesy concepts. The use of pedagogical technologies also helped students to visualize and apply theoretical concepts to real-world scenarios.

**Discussion:**

The findings of the study indicate that incorporating pedagogical technologies in geodesy classes can enhance students' comprehension of the subject. Pedagogical technologies can be used to create an active learning environment that promotes engagement and participation. The use of these tools can also provide students with a variety of learning experiences that cater to different learning styles. However, it is important to note that pedagogical technologies cannot replace traditional teaching methods entirely. They should be used as a supplement to traditional teaching methods to enhance students' understanding of the subject.

**Conclusion:**

In conclusion, pedagogical technologies can be an effective way to enhance students' understanding of geodesy concepts. The use of these tools can create an active learning environment that promotes engagement and participation. The study findings suggest that pedagogical technologies such as videos, simulations, and interactive software can significantly improve students' comprehension and academic performance in geodesy classes. These findings can be beneficial to geodesy instructors who are looking for effective ways to teach the subject.

**REFERENCES:**

1. Hasanov R. Tabaqalashtirilgan ta'lim muammolari. Uzluksiz ta'lim jurnali. –2003 . 2-son.
2. Hasanov R. Maktabda tasviriy san`atni o'qitish metodikasi. Darslik. – Toshkent: Fan. 2004.
3. Qodirov K.B. Tabaqalashtirilgan ta'limda psixologik-pedagogik tashxis. – Toshkent: O'zPFITI. 2005.
4. Хатамова, З. (2021). Expenditure of income from taxes and levies in the kokand khanate: <https://doi.org/10.47100/conferences.v1i1.1230>. In *research support center conferences* (No. 18.05).
5. Nazirjonovna, K. Z. (2022). SH. VOKHIDOV'S CONTRIBUTION TO THE STUDY OF THE HISTORY OF THE KOKAND KHANATE. *Innovative Society: Problems, Analysis and Development Prospects*, 139-141.
6. Xatamova, Z. (2021, June). EXPENDITURE OF INCOME FROM

TAXES AND LEVIES IN THE KOKAND KHANATE. In *Конференции*.

7. Хатамова, З. (2023). Из истории денежной политики в финансовой системе Коканского ханства. *Актуальные проблемы истории Узбекистана*, 1(1), 327–336. извлечено от <https://inlibrary.uz/index.php/history-of-uzbekistan/article/view/16511>

8. Nazirjonovna, K. Z. (2022). Political-Financial Analysis of the Issues of Science of the Kokand Khanate in the Work of Khudoyorkhonzade “Anjum At-Tavorikh”. *CENTRAL ASIAN JOURNAL OF SOCIAL SCIENCES AND HISTORY*, 3(10), 102-111. Retrieved from <https://cajssh.centralasianstudies.org/index.php/CAJSSH/article/view/463>

9. Murodilov K. T. et al. USE OF GEO-INFORMATION SYSTEMS FOR MONITORING AND DEVELOPMENT OF THE BASIS OF WEB-MAPS //Galaxy International Interdisciplinary Research Journal. – 2023. – Т. 11. – №. 4. – С. 685-689.

10. Burkhonov, I. M. (2020). “ZAKAT” HAS ENSURED FAIRNESS AND BALANCE IN SOCIETY. *Theoretical & Applied Science*, (5), 201-204.

11. Muhiddinovich, B. I. (2020). Negative impact of the tax system on political life-on the example of the history of the Kokand Khanate (1850–1865). *ACADEMICIA: An International Multidisciplinary Research Journal*, 10(5), 790-795.

12. Murodilov K. T., Muminov I. I. THEORY OF CREATING CLUSTER MONITORING WEB MAPS USING GEOINFORMATION SYSTEMS //Open Access Repository. – 2023. – Т. 4. – №. 3. – С. 1430-1436.

13. Burkhonov, I. (2021, June). The importance of the scientific heritage of asomiddin urinboyev in the study of the history of the Kokand khanat. In *Конференции*.

14. Бурхонов, И. М. (2019). ҚЎҚОН ХОНЛИГИ МАЪМУРИЙ БОШҚАРУВИДА СОЛИҚ ТИЗИМИНИНГ СИЁСИЙ ХАЁТГА САЛБИЙ ТАЪСИРИ (1850-1865). *ВЗГЛЯД В ПРОШЛОЕ*, (19).

15. Burkhonov, I. (2021). The importance of the scientific heritage of asomiddin urinboyev in the study of the history of the Kokand khanat: <https://doi.org/10.47100/conferences.v1i1.1242>. In *RESEARCH SUPPORT CENTER CONFERENCES* (No. 18.05).

16. Бурханов, И. (2023). Научное наследие Шарафиддина Али Язди в интерпретации Асомиддина Оринбоева. *Актуальные проблемы истории Узбекистана*, 1(1), 165–171.

17. Murodilov K. T., Muminov I. I., Abdumalikov R. R. PROSPECTS OF PEDAGOGICAL SKILLS IN CADASTRAL SCIENCES //JOURNAL OF ENGINEERING, MECHANICS AND MODERN ARCHITECTURE. – 2023. – Т. 2. – №. 5. – С. 12-16.

18. BURKHONOV, I. FROM THE HISTORY OF THE TRANSLATION OF THE WORK OF ABURAZZAK SAMARKAND" MATLA'I SA'DAYN AND MAJMA'I BAHRAIN. *ЭКОНОМИКА*, 138-144.

19. Muhiddinovich, B. I. (2022). The Importance of Asomiddin Urinboev's Scientific Research in the Study of the History of the Kokan Khanate. *Kresna Social Science and Humanities Research*, 3, 175-179.

20. Бурхонов, И. М. (2020). «ЗАКОТ»-ХАЛҚИМИЗ ҲАЁТИДА АДОЛАТ ВА МУТАНОСИБЛИК ОМИЛИ. *ВЗГЛЯД В ПРОШЛОЕ*, 3(5).

21. Muhiddinovich, B. I. (2022). In the Study of the History of the Kokand Khanate. *Eurasian Journal of History, Geography and Economics*, 6, 68-71.

22. Burkhanov, I. (2022). FROM THE HISTORY OF THE USE OF THE SCIENTIFIC HERITAGE OF KOKAND SCIENTISTS ASOMIDDIN URINBOEV. *International Bulletin of Medical Sciences and Clinical Research*, 2(10), 63–67.

23. Хатамова, З. (2021, August). EXPENDITURE OF INCOME FROM TAXES AND LEVIES IN THE KOKAND KHANATE: <https://doi.org/10.47100/conferences.v1i1.1230>. In RESEARCH SUPPORT CENTER CONFERENCES (No. 18.05).

24. Хатамова, З. Н. Особенности налоговой системы Кокандского ханства / З. Н. Хатамова. — Текст : непосредственный // Молодой ученый. — 2020. — № 5 (295). — С. 254-256. — URL: <https://moluch.ru/archive/295/66918/>

25. Nazirjonovna, H. Z., & Abdumannobovich, N. M. (2020). Tax system on the territory of kyrgyzstan during the Kokand Khanate. *ACADEMICIA: An International Multidisciplinary Research Journal*, 10(6), 209-212.

26. Xatamova, Z. (2020). Expenditure of state funds replenished by taxes in the history of the kokand khanate. *EPRA International Journal of Research and Development (IJRD)*, 5(3), 274-277.

27. Хатамова, З. Н. (2020). ҚЎҚОН ХОНЛИГИДА СОЛИҚЛАР ҲИСОБИГА ТЎЛДИРИЛГАН ХАЗИНАНИНГ САРФ ЭТИЛИШИГА ОИД МАЪЛУМОТЛАР. *ВЗГЛЯД В ПРОШЛОЕ*, (SI-1№ 4).

28. Xatamova Zumradxon Nazirjonovna. INFORMATION ON THE PROVISION OF THE FUND IN THE KOKAND KHAN. *Look to the past*. 2020, SI, pp.590-595