

**METHODOLOGY OF TEACHING PROGRAMMING LANGUAGES USING
DIFFERENTIATED EDUCATIONAL TECHNOLOGIES IN SECONDARY SCHOOLS**

Jumanquziyev Uktamjon Utkirjon ugli

Teacher of the Kokand State Pedagogical Institute

E-mail: jumanqoziyev@mail.ru

Annotation. The article analyzes new methods and principles for the use of differentiated educational technologies in general secondary schools.

Key words: *Learning areas, differentiated, content, processes, assignments.*

Differentiated (differentiated) learning is an effective teaching strategy that adapts the content and processes of learning in each class to different learning styles.

In the organization of a differentiated educational process, the following elements are used:

content – tools used in giving theoretical knowledge and practical skills to teachers;

processes – exercises and practices to be performed so that students can better understand the content of the topic;

assignments – materials such as test, project etc. so that students can demonstrate their knowledge.

Each teacher must regularly analyze the differentiated learning strategies that he or she uses. For example:

– Do you use different materials and methods of teaching in the lesson? (according to the content)

– Do you have a single, small group and large group training session that allows students of different levels to master the content? (by process)

– Do you help students to understand the content in a variety of ways, such as testing, project, assignment? (on assignments)

In this way, teachers adapt their approach to the minds of students of different levels. The differentiated learning strategy helps students to master the lessons on account of the diversity of the content, to demonstrate their understanding of the subject.

Teachers spend extra time drawing up differentiated lesson plans suitable for their abilities for students whose level of knowledge is different, or most of them do not always find this time. To eliminate such problems, the following technologies can be used in the course processes.

Creation of training areas.

In the organization of training areas, the class is divided into 4-5 areas. For each field, different content is developed by the teacher (for example, a video is shown in one field in the classroom, a crossword puzzle or a puzzle assignment in the other, text materials in the other, etc.). Students choose their favorite from these areas. In each area, a specific style of teaching is used when presenting content.

Stages of implementation of the method

01 O'qituvchi tomonidan quyidagi kontentlarni o'z ichiga olgan maydonlar tashkil etiladi: • videoni tomosha qilish; ijodiy asar yaratish; mavzu materialini o'qish; jumboqlarni yechish; o'qituvchini tinglash.

02 O'quvchilar maydonlardan birini tanlaydi.

03 O'quvchilar kontentli maydon orqali materialni o'zlashtirgandan so'ng, bilimlarni mustahkamlash uchun sinfda bahs-munozara yoki savol-javoblar o'tkazish mumkin.

Use of task cards.

Assignment cards allow students to use a variety of content. The answer to the task cards can be done individually, in pairs or in large groups.

Stages of carrying out the method:

01 o'qituvchi tomonidan darslik va turli qo'llanmalar asosida savol va topshiriqlar tuziladi;

02 har birida bittadan savol yoki topshiriq bo'lgan kartochkani qog'ozga chiqarib, laminatsiya qildiriladi;

03 o'quvchilar kichik guruh yoki juftliklarga bo'linadi va kartochkalar tarqatiladi;

04 juftliklarni kuzatib boorish jarayonida o'quvchilarning topshiriqni bajarishdagi kamchiliklarini bartaraf etish uchun individual ko'rsatmalar beriladi.

Conversation with students.

By asking questions on teaching styles, it is possible to determine what content is suitable for the learners. In the process of training by a small or large group, each student is pulled aside for a few minutes and asked a question:

- What are your favorite lesson types?
- What are your hobbies?
- Which projects are most suitable for you?
- Which exercises will help you remember the main points of the lesson?

The results are tracked. This method will help to determine which teaching methods are suitable for students in teaching the topics.

Appointment of open projects.

It is necessary to make a list of projects that will allow them to effectively demonstrate their knowledge, just as the evaluation of the indicators of students' mastering.

For each type of project, it is necessary to include topics that clearly define the results, or to choose the topics together with the readers. This will ensure that students will be able to independently execute the project as well as know in advance which criteria they will be assessed. Also, such an

approach not only attracts students, but also motivates them to do the following by meeting certain criteria:

- work and study at your own discretion;
- actively engage in content that needs to be mastered;
- demonstrate their knowledge as much as possible.

This method, along with being useful to students, clearly shows the working and learning styles.

Motivate students to offer ideas for their projects.

In addition to giving a variety of topics as a project topic, it is possible to motivate students to lead them to the end of the concession by offering their ideas. Bunda should show the reader how the product of his project meets the criteria laid down and should be open to teacher criticism.

If the presentation does not meet the requirements laid down, it is possible to recommend the reader to improve their idea and offer another date.

Some project results may also be surprising. Because the students themselves will be at the center of a differentiated education, that is, they will have a good knowledge of their learning styles as well as their abilities.

REFERENCES

1. Fayziyeva M.R., Sayfurov D.M., Xaytullayeva N.S., Jumanqo‘ziyev O‘.O‘./Informatika va axborot texnologiyalari. O‘qituvchi kitobi: umumiy o‘rta ta‘lim maktablarining 6-sinfi uchun o‘quv metodik qo‘llanma – Toshkent: 2021. – 188 b.
2. Information and communications technology in the Primary School Curriculum. Guidelines for teachers. NCCA. – 190 p.
3. Chris Roffey. Python basics. Coding club. Level 1, 2. – USA:Cambridge university press. 2012. – 85 p.
4. Ravshanbek, J. (2022). CREDIT-MODULE SYSTEM, ITS BASIC PRINCIPLES AND FEATURES. *Yosh Tadqiqotchi Jurnal*, 1(4), 304-309.
5. O‘G‘Li, J. R. M. (2022). METHODS OF ORGANIZING INDEPENDENT STUDY OF STUDENTS IN THE CREDIT-MODULE SYSTEM. *Ta‘lim fidoyilari*, 25(5), 93-97.
6. Султонова, Н. А., & Ўлмасова, К. (2020). Кичик мактаб ёшидаги ўқувчиларнинг ижодий қобилиятларини ривожлантириш. *Интернаука*, (3-2), 84-86.
7. Anvaronva, S. N., & Kizi, M. K. K. (2022). Developing the Intellectual Power of Preschool Children Through Developing Technologies. *Eurasian Research Bulletin*, 7, 30-33.
8. СУЛТОНОВА, Н. А., ЮЛДАШЕВА, М. Э., & УРИНБАЕВ, Н. Н. У. (2015). СОВРЕМЕННЫЙ УРОК В СИСТЕМЕ ТРАДИЦИОННОГО ОБУЧЕНИЯ И ИХ РАЗВИВАЮЩИЕ ВОЗМОЖНОСТИ. In *Молодежь и XXI век-2015* (pp. 359-362).
9. Xalkuzieva, D. B., & Muxammadjonova, X. (2021). Maktabgacha yoshdagi bolalarni maktabga axloqiy-irodaviy tayyorligining psixologik jihatlari. *Scientific progress*, 1(6), 704-707.
10. Bahodirovna, K. D. (2022). STUDY OF PEDAGOGICAL AND PSYCHOLOGICAL ASPECTS OF PRESCHOOL EDUCATIONAL PREPARATION OF PRESCHOOL CHILDREN. *INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH* ISSN: 2277-3630 Impact factor: 7.429, 11(05), 57-60.

11. Bahodirovna, K. D. (2021). DEVELOPMENT OF HUMANITY AND SOCIAL QUALITY AND ABILITIES OF THE INDIVIDUAL IN EDUCATION. *Innovative Technologica: Methodical Research Journal*, 2(05), 151-155.
12. Xalkuziyeva, D. B. (2021). МАКТАБГАЧА ТАЛИМ ТАШКИЛОТЛАРИДА БОЛАЛАРНИ ТАБИАТ БИЛАН ТАНИСHTIRISH ОРҚАЛИ ТАРБИЯЛАШ. *Scientific progress*, 2(1), 510-512.
13. Mirzamaxmudovna, X. J. N. (2022). THE IMPORTANCE OF VISUAL ACTIVITY IN THE SOCIALIZATION OF PRESCHOOL CHILDREN. *INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH* ISSN: 2277-3630 Impact factor: 7.429, 11(05), 94-98.
14. Mirzamaxmudovna, K. N. (2021). Spiritual And Ethical And Socialization Of Pupils Of Preschool Educational Institutions Psychological-volitional Aspects. *JournalNX*, 7(06), 165-168.
15. Isaxanova, M. E., Xujanazarova, N. M., & Irmatova, M. I. MODERNIZATION OF PRESCHOOL EDUCATION.
16. Isaxanova, M. E., Xujanazarova, N. M., & Irmatova, M. I. MODERNIZATION OF PRESCHOOL EDUCATION. (2020). *European Journal of Research and Reflection in Educational Sciences*, 8(3), 120-124.
17. Achilova, S. K. (2021). Pedagogical possibility of physical qualities education in preschool children. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(3), 2422-2428.
18. Nadzhatbekovna, K. D., & Khamidovna, A. S. (2019). The use of play as an educational tool in the learning process. *Asian Journal of Multidimensional Research (AJMR)*, 8(12), 62-65.
19. Khamidovna, A. S. (2022). PEDAGOGICAL OPPORTUNITIES FOR THE UPBRINGING OF PHYSICAL QUALITIES BY PURPOSEFUL DEVELOPMENT OF ACTION POTENTIAL IN PRESCHOOL CHILDREN. *INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH* ISSN: 2277-3630 Impact factor: 7.429, 11(04), 134-143.
20. Khamidovna, A. S. (2022). PEDAGOGICAL OPPORTUNITIES FOR THE EDUCATION OF PHYSICAL QUALITIES IN PRESCHOOL CHILDREN. *INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH* ISSN: 2277-3630 Impact factor: 7.429, 11(04), 124-133.
21. Akbarovna, A. S. (2022). TECHNIQUE OF FORMATION OF PEDAGOGICAL TECHNIQUES. *INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH* ISSN: 2277-3630 Impact factor: 7.429, 11(04), 118-123.
22. Akbarovna, A. S. (2022). INCLUSIVE EDUCATION AND ITS ESSENCE. *INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH* ISSN: 2277-3630 Impact factor: 7.429, 11(01), 248-254.
23. Akbarovna, A. S. (2021). Education Of Harmoniously Developed Generation In The Pedagogical Views Of Eastern Thinkers. *JournalNX*, 7(03), 9-11.
24. Устаджалилова, Х., Хайдарова, М., & Олимова, Д. (2020). РОЛЬ ИСТОРИЧЕСКОГО И КУЛЬТУРНОГО НАСЛЕДИЯ В ФОРМИРОВАНИИ МОТИВАЦИИ ИЗУЧЕНИЯ МАТЕМАТИКИ. In *Фундаментальные и прикладные научные исследования: актуальные вопросы, достижения и инновации* (pp. 17-19).

25. Султанов, Д., & Устаджалилова, Х. А. (2014). Особенности развития геометрических умений и навыков учащихся при решении задач методом геометрических преобразований. In Теория и практика современных гуманитарных и естественных наук (pp. 253-259).
26. Alisherovich, A. G. O. (2022). REGIONAL ANALYSIS OF THE USE OF RECREATIONAL RESOURCES OF FERGANA REGION. Web of Scientist: International Scientific Research Journal, 3(5), 1021-1025.
27. Содикович, К. Қ. (2020). МУҲАММАД АЗИЗ МАРҒИЛОНИЙНИНГ “ТАРИХИ АЗИЗИЙ” АСАРИДА ҚОЗИЛАР ФАОЛИЯТИНИНГ ТАЛҚИНИ. Современное образование (Узбекистан), (11 (96)), 52-59.
28. Содикович, К. Қ., & Иброхимов, С. М. Ў. (2020). ТУРКИСТОН ЎЛКАСИДА ТАЪЛИМ ТИЗИМИ: МАДРАСАЛАР ФАОЛИЯТИ (XIX XX АСР). Современное образование (Узбекистан), (10 (95)), 54-59.
29. Содикович, К. Қ., & Мелибоев, А. Н. (2019). Ешларда ахлоқии сифатлар шаклланишида тарихий маълумотлардан фойдаланиш. Современное образование (Узбекистан), (6 (79)), 78-84.
30. Содикович, К. Қ. (2018). Тарих дарсларида Абу Али ибн Сино ёзган фалсафий қиссалардан фойдаланишнинг тарбиявий аҳамияти. Современное образование (Узбекистан), (1).
31. Mamyayusupova, I. K. (2020). ON THE PSYCHOLOGICAL CRITERIA AND FACTORS OF ORIGIN OF CONFLICTS THAT ARISE BETWEEN YOUNG PEOPLE. Theoretical & Applied Science, (2), 630-633.
32. Khamidovna, M. I. (2021). Different ways of Resolving and Managing Conflicts. Middle European Scientific Bulletin, 17, 204-207.
33. Khamidovna, M. I., & Khudayberganov, O. (2022). The Psychology of Adolescent Conflicts in Society. Yosh Tadqiqotchi Jurnal, 1(1), 29-33.
34. Khamidovna, M. I. (2021). Organizational and socio-psychological mechanisms for making managerial decisions in conflict situations between adolescents.
35. Muminova, G. B. Senior scientific researcher, TSEU Social Media as a tool of Innovative Marketing: The case of Uzbekistan.
36. Muqimovna, G. A. D., & Baxodirovna, M. G. (2022). TECHNOLOGY FOR THE FORMATION OF SOCIAL CONSCIOUSNESS IN PRESCHOOL ADULTS. INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429, 11(05), 221-227.