USING ARTIFICIAL INTELLIGENCE AND DIGITAL PLATFORMS IN SCIENCE TEACHING METHODOLOGICAL POSSIBILITIES OF USE

Shokhdorova Kamola Anvarovna
Email:shagdarovakamola@gmail.com
Phone: +998999482144

Abstract. This in the article natural sciences in education artificial intellect and digital from platforms use opportunities In particular, EduBaza and Plickers from platforms use methodology, their students activity, quick assessment and again communication in the process importance analysis Digital tools pedagogical to the goal appropriate application according to practical recommendations given.

Key words: natural sciences, artificial intelligence, digital education, EduBaza, Plickers, digital platform, fast assessment, interactive education, pedagogical technology.

Today on the day education in the system face giving digital transformation educationprocess organization to reach new It requires approaches. Especially naturalsciences in education to students ready information to deliver with limited without leaving them observation, question to give, to guess to do, to experience transfer, results analysis to do and independent conclusion to release redirect important importance profession is doing. Digital literacy modern education in the process teacher's digital technologies and innovative from tools effective use opportunities determinant important from competencies is one [1,12].

Natural sciences to the composition biology, physics, chemistry, geography and nature with related other directions enter, their in most of them to students eye with directly observation difficult was process and events to explain right comes. That's why visual materials, interactive assignments, digital modeling, quizzes and fast assessment from the means use lesson efficiency to increase service to do possible.

Digital from platforms of use again one important aspect — teacher 's time saving and the lesson in advance systematic planning For example, EduBazato the students short time inside interactive lesson presentations, quizzes, games and handout materials preparation opportunity This gives teacher 's the lesson only lecture in the form of not, maybe various activities in harmony organization to reach help gives.

In turn, Plickers platform in class every one student's answer fast determination opportunity giver tool as application This is possible. approach to oneself originality is that the students separately telephone or No tablet required. Studentsspecial pressing issued from cards they use, teacher and one mobile device through the answers determines. This point naturally sciences in their classes digital platforms applicationthe issue not only technological, maybe methodical in terms of study current is considered.

Methodology

Modern pedagogue educationand assessment in the process artificial from the intellect reasonable use knowledge necessary. Studentsknowledge level analysis to do, their mastery pace assessment, strong and weak sides determination for artificial intellect and education analytics from the means use today's day on demand is spinning. In general when receiving, digital in the world pedagogue to be for only technician to knowledge has to be enough It is not modern. in the environment from the teacher wide comprehensive digital literacy, innovation approach, variable to the conditions fast adaptation, critical and creative thinking, information safety to provide, to a person directed education done increase and permanent oneself develop skills are required. In the study pedagogical observation, scientific-methodical literature analysis to do, comparative analysis, practical methodical modeling and digital education of tools didactic opportunities studyfrom the methods used. Natural sciences educationin the process students knowledge and skills fast determine, results analysis to do and own

on time again communication to give education efficiency increase important from the conditions is one.[2]

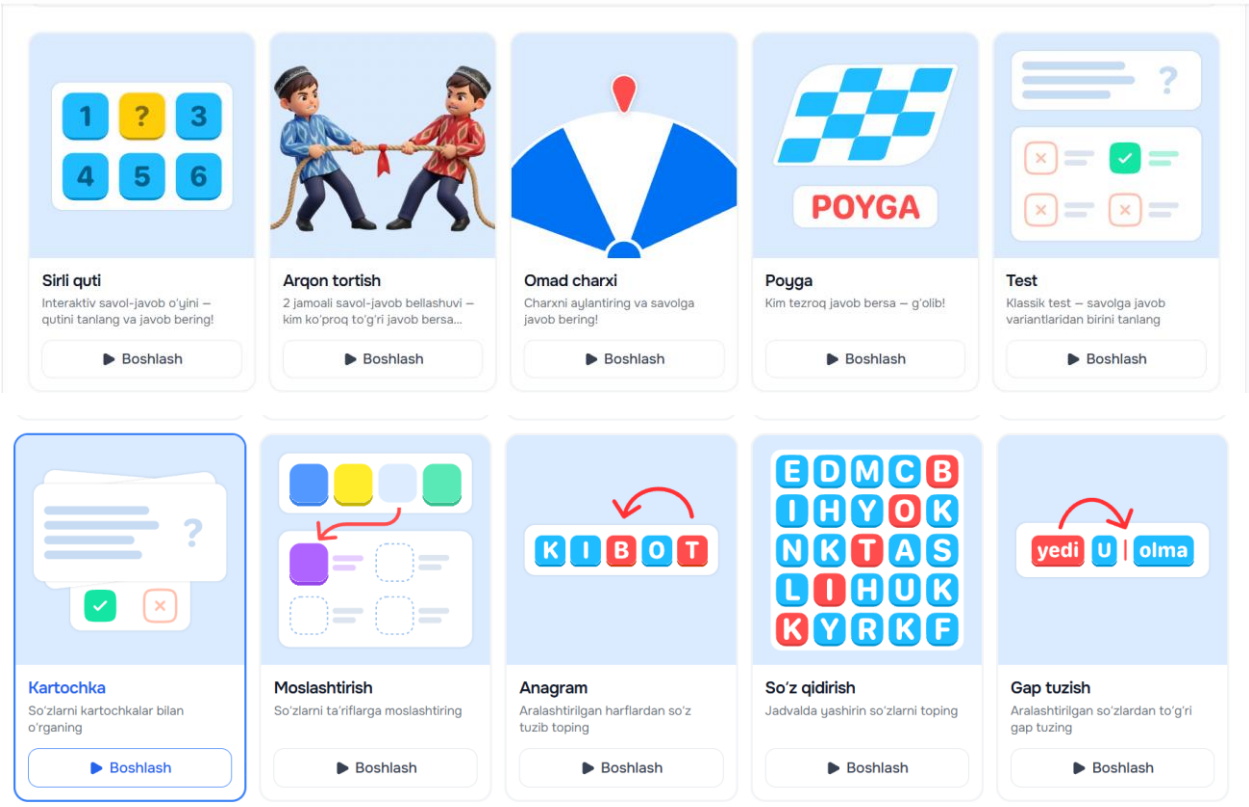
The research practical in part natural sciences lesson organization to grow for two kind of digital tool selected:

EduBase	Lesson content preparation and interactive activities organization to grow tool
Plickers	Studentsknowledge fast determination and assessment tool.

This from tools use following “ Preparation – Activation – Verification – Analysis "to do" methodically model based on organization was done.

Stage 1. Lesson digital preparation

Initially teachernatural science subject defines and lesson from the purpose come out training materials prepares. EduBaza using to the topic suitable interactive presentation, quiz, game and handout materials is formed.



In this EduBase from the platform use through lesson content interactive presentations, quizzes, didactics gamesand handout materials with enrichment opportunity is created. For example, the initial in education " Plants" nutrition " topic in learning of plants to the structure related visual materials, photosynthesis process to understand directed questions, topic to strengthen service quiz and didactic games and short training materials formation possible. Such digital of resources lesson to the content integration of the students to the topic was interest increase, their attention training to the activity redirect and lesson initial from the stage active participation to provide service does. The research second in the phase prepared digital materials based on of the students to know activity to activate directed pedagogical process organization The teacher topic from the content come out problematic questions previously pushes and students their their answers independent search, analysis to do and to justify For example, “ Why plants without light far time develop normally throughout " Can't you ? " problematic question in students there is knowledge activation and new knowledge search need to the surface brings. Studentsinitially this question on the surface own assumptions previously they drive, so after interactive presentation, visual materials and other digital resources using of the event scientific content explained.

Natural sciences education in the process students the topic where at the level that he/she has mastered determination and training activity results based on fast again communication to give important methodical from tasks is one of them. Plickers platform to the teacher special cards using students their answers fast determination and the results digital in the environment record to grow opportunity gives.**[**3]

This point by the way, Plickers platform students knowledge fast assessment and their their answers one of time in itself determination opportunity giver digital tool as application possible. Plickers from the platform use The process is primarily the teacher 's in the system account create and relevant the class from the formation begins.

Teacher Plickers website or mobile application through register Go to the “Classes” section new class creates. This to the department class name, related lesson and students list Students are introduced. to the system at hand input or there is import data in CSV format opportunity available. This stage individual student responseslater determination and analysis to do for necessary was initial organizational process The platform is main tool as special Plickers from cards is used. Each to the student separately to the identifier has card attached and this card in the system relevant student profile with The cards are printed. then, they to students distributed.

This of cards every one towards answer options customized to be a student own answer card relevant direction change through represents. Lesson in the process teacher mobile on the device Plickers application to work download and install the class chooses and on the subject of natural science related the question presented For example, " Photosynthesis " in the process plants mainly which from gas " uses ?" question When given, students are asked to A) oxygen, B) nitrogen, C) carbonate anhydride, D) hydrogen answer options offer Students themselves considered correct answer to the option suitable accordingly cards relevant in the direction hold They stand. Teacher and mobile telephone or tablet camera using cards scans and students their answers system through determines. This process to the teacher every one student's answer fast determine, correct and wrong the answers separation and students for which questions complicated what happened determination opportunity gives. Obtained results based on teacherof the subject enough undeveloped parts again explanation, additional assignments to give or next lesson activity students to the needs suitable accordingly planning possible.





RESULTS AND DISCUSSION

Research within working issued methodological model digital from platforms use natural sciences lesson various stages each other tie opportunity showed. EduBaza lesson substantive and interactive part organization in the making, Plickers and of the students their answers fast determination and again communication in giving application possible.This methodology important aspect is that the student lesson during one how many times actively moves : question reads or listens → thinks → answers option chooses → card through answer gives → the result sees → error on works.

Such organization done in class assessment only lesson at the end done increaseable process to be On the contrary, he will study. process structural to the part turns.EduBase through interactive presentation, quiz, game and handout of materials one lesson within harmonization to the teacher lesson various stages for suitable activities planning opportunity gives.

Plickers and especially all from students one of time in itself answer to take necessary was in situations methodical in terms of comfortable tool become service to do possible.This with together, digital from platforms of use himself/herself lesson efficiency automatic accordingly The main issue is the platform. lesson to the purpose suitable choose. If EduBaza only beautiful presentation create for, Plickers and only of the students their answers show for if used, their pedagogical opportunities complete manifestation It won't be possible.

CONCLUSION

Conclusion as so to speak, natural sciences in education artificial intellect and digital from platforms use education process interactive, flexible and student to the activity directed without organization to grow for important opportunities creates. Natural sciences in education students independent thinking, observation, analysis to do and conclusion release skills develop important methodical from tasks is

considered.[4] Especially, EduBaza through interactive lesson materials, quizzes, games and handout materials preparation and Plickers using students their answers fast determination “Explanation – active” of the lesson participate – check – repeat "communication" sequence effective organization to reach help gives. Offer done in methodology digital platforms teacher's instead clicker tool as not, maybe his/her pedagogical activity amplifier digital assistant as is considered. In this teacher lesson purpose defines, fits the platform selects, tasks working it turns out, the students their answers analysis does and next pedagogical decisions acceptance Technology value his/her in its newness not, maybe student's better to study how much service It's in the making.

Used literature:

Digital literacy : in education innovative technologies : preschool, general middle education, higher education and other education organizations pedagogue personnel for educational-methodical manual. — Tashkent, 2026. — 130 pages.

Kadirova FU, Kobilova Sh.Kh., Khusnuddinova ZX *Natural sciences educationmethodology*. – Tashkent: ZEBO PRINTS, 2026. – 168 p.

Plickers. *What is Plickers ?* Plickers Help Center. - 2026.

Bekchanova NB *Natural sciences theory and methodology*. Studymanual. – Tashkent: Makon Trade Print, 2025. – 295 p.