

Торайғыров университетінің
ҒЫЛЫМИ ЖУРНАЛЫ

НАУЧНЫЙ ЖУРНАЛ
Торайғыров университета

**ТОРАЙҒЫРОВ
УНИВЕРСИТЕТІНІҢ
ХАБАРШЫСЫ**

Педагогикалық сериясы
1997 жылдан бастап шығады



**ВЕСТНИК
ТОРАЙҒЫРОВ
УНИВЕРСИТЕТА**

Педагогическая серия
Издается с 1997 года

ISSN 2710-2661

№ 4 (2020)

Павлодар

НАУЧНЫЙ ЖУРНАЛ
Торайгыров университета

Педагогическая серия
выходит 4 раза в год

СВИДЕТЕЛЬСТВО

о постановке на переучет периодического печатного издания,
информационного агентства и сетевого издания

№ KZ03VPYU00029269

выдано

Министерством информации и коммуникаций
Республики Казахстан

Тематическая направленность

публикация материалов в области педагогики,
психологии и методики преподавания

Подписной индекс – 76137

Бас редакторы – главный редактор

Бегентаев М. М.

д.э.н., профессор

Заместитель главного редактора

Ответственный секретарь

Пфейфер Н. Э., *д.п.н., профессор*

Нургалиева М. Е., *PhD доктор*

Редакция алқасы – Редакционная коллегия

Абибуллаева А.,

д.п.н., профессор

Бурдина Е. И.,

д.п.н., профессор

Жумагаева Е.,

д.п.н., профессор

Фоминых Н. Ю.,

д.п.н., профессор (Россия)

Снопкова Е. И.,

к.п.н., профессор (Белоруссия)

Мирза Н. В.,

д.п.н., профессор

Донцов А. С.,

доктор PhD

Шокубаева З. Ж.,

технический редактор

За достоверность материалов и рекламы ответственность несут авторы и рекламодатели

Редакция оставляет за собой право на отклонение материалов

При использовании материалов журнала ссылка на «Вестник Торайгыров университета» обязательна

<https://doi.org/10.48081/RQGE6423>

Z. Aimaganbetova, A. Abdrakhmanov, A. Kalibaeva

K. Zhubanov University,
Republic of Kazakhstan, Aktobe

INTRODUCTION OF RENEWED PROGRAM IDEA TO THE PHYSICS TEACHING PRACTICE

Informational support of educational process is based on increase of effectiveness and quality of all levels of educational process achieving the goals of developing training with the use of new information technologies and directing training of individual. In the Law of the Republic of Kazakhstan «About Education»: «The main task of educational system – to create the conditions of education directed to the formation of individual and professional development on the basis of national and civil values and practice achievements, to set new educational technologies, informational support of the educational process, to go out into the world international communicative network», – were written. Thereby there are some tasks in front of teachers, not only give the knowledge to the students, but also to develop a many-sided, free, creative and competitive individual.

One of our main goals is the development of new innovative technologies in the development of education and science. In this regard, the introduction of more information technology, new teaching methods is becoming one of the most pressing issues.

Many modern technologies used in educational process are directed to the development of an individual and effective education. One of them, the use of information and communication technologies is an effective way of knowledge quality increase.

Key words: Plickers, Easy Quizzy, technology, QR-code, renewed maintenance of education, ICT, Internet, interactive test.

Introduction

For preparation and education of many-sided and competitive personality able to bring in the contribution to the development of Kazakhstan, innovators, constantly perfecting knowledge, searching the ways of quality education with the aim «learn for education», are needed.

In Message of Head of the state were talked: «The quality of education is first of all determined by the qualitatively prepared teachers that give these knowledge to the students by different methods». On this basis, it is very important to explain the teachers to their students to estimate their profession and understand the necessity of it.

The feature of the renewed educational program is a serve by spiral principle. It means community of theme between subjects and transition from lightness to complication. The evaluation system passes to the system of criterion evaluation, that resulted in considerable changes in the system of evaluation. At a criterion evaluation progress of students is estimated on the certain points of the pre-set criteria. Progress of students on an subject is estimated by two methods: formative evaluation and total evaluation. This approach of estimation, the feed-back directed to form the necessary skills to be successful in the dynamically developing intellectual and technical environment of the XXI century. They prepare and encourage students to the independent mastering and study of many skills of higher level, such as a critical thinking, joint work, information processing and decision of problems. Mastering these skills at high level supposes the decision of problems in the educational program on physics [2].

In the renewed maintenance of education one of the forms of independent work of schoolchildren is the system of tasks. Aim – development of the confidence at every learner, ability to answer themselves, qualities of honor and self-appraisal.

During the lessons students search for additional information (from printed matters, Internet) on the conducted themes, make and summarize independent works, texts, lectures, presentations, do the test tasks for the estimation of gained knowledge.

Doing the tasks, they understand in what program and how they were done and use them in the future. Nowadays there are a lot of programs for preparing tests. Among them we will consider the programs «Pliskers» and «Easy Quizzy» for verification of gained knowledge.

In accordance with modern requirements application of new technologies in the field of education plays an important role. Presently one of the basic requirements of education are continuous perfection of education and intensification of educational process.

To systemize the knowledge of students it is necessary to organize the different types of lessons.

It means during the lesson students not only must listen to the teacher but also they must be active. Within the active training they get merry education. From

the point of view of renewal and introduction of criterion system of evaluation teachers demonstrate their mastery.

To the appendixes of the interactive educating it is possible to take the next programs: Plickers, learning.apps, kahoot.it, that is on the basis of such programs, teachers can involve the interest of all students to educational process in minimization of time of teacher and student. Among these programs I chose the program «Plickers», where it is possible to test knowledge of students.

Plickers- it is a beneficial program for the estimation of students' knowledge. You can get a questionnaire from all students during one minute. Possibilities of «Plickers» service are considered, that enable the group (audiences of listeners), mobile voting, preliminary questionnaire and instantly to take into account the attendance of the lesson [9].

Efficiency of work with mobile application is high, implementation of these operations takes a few minutes. Advantage of this program is that participants do not need smartphones and computers, and it is possible at once to get research results without long tests.

«Plickers» is an appendix that facilitates the process of statistical work and instantly estimates the answers of students, and also groups. «Plickers» uses a mobile phone or plane-table of teachers for reading of QR-codes on the cards of students.

Every student has the personal card. Four walls of card designate four variants of answer, turning them, a student chooses a correct variant. The list of group is first entered in the program, in accordance with that the cards of every student are determined, also it shows how each student answered the question. «Plickers» is also practical to know the presence of students.

I think it is more efficiently to scan the students' raising cards than verification of all group on a list. Efficiency of «Plickers» - it does not change the educating process. For the use of this application students do not need smartphones and computers, no techniques, only tablet of teacher or mobile phone.

Subject of research

Technology of the interactive testing of «Plickers» is very simple and beneficial. The use of this application saves time, because does not require long-term verifications. The answers of students are scanned in the mode of certain time and results are kept in a database. After the scan teacher immediately gets statistics of right and wrong answers and their authors on an interactive board. The program «Plickers» creates the diagrams of answers and allows to know which part of group can be investigated and needs an additional help.

On a card a rectangle consisting of four walls is represented. On four walls (A, B, C, D) the variants of answers are presented. When the teacher reads the test

question, students hold up their individual card to share their response. Teacher's phone then scans their cards giving her instant feedback. This is great for teachers who want a quick response. Within a minute, teacher can have all students answers and the ability to keep their data for later. Students do not need to write, are not able to read their peers responses, and these responses can immediately inform teachers on where to go next.



Picture 1 – Cards

We download cards from a web-site <https://www.plickers.com> [5]. There are a few types of cards, we choose accordingly, that necessary. After registration on a web-site the page will be opened, where upon you can open a document for a group and subject.

Next step, we fill data about a group, in order not to be confused with the name of group and discipline can be chosen color of document. Next step, we enter the list of students, here the cards of individual code of every student will be prepared automatically.

Richard Byrne defined the new methods of the use of the program «Plickers», managing the blog of new technologies.

1st method – this program is great for teachers who want a quick response from the auditory to the question «Do you understand?» Students answer with cards «yes» or «no». These responses can immediately inform teachers on where to go next. It allows to define who didn't understand the question.

2nd method – with the help of «Plickers» teacher can take mini quizzes at the end of the lesson. For that it is necessary to add the list of additional group and questions. Students hold up their cards to share their response, and teacher immediately gets statistics how the students worked. The difference of this type quiz from the oral type of quiz, it allows to involve the hole group not only a few students.

3rd method – «Plickers» is beneficial to check the attendance of students. With the help of this application we can define students' knowledge easy and quickly, because it takes only a few seconds to scan the cards and it saves the time. To work with this device at first you must register to the web-site <https://www.plickers.com> and download it to the smartphones [6].

Research methods and results

«Plickers» is the program that allows at once to estimate the answers of all group and facilitate statistical collections. Actuality of the theme is the use of interactive forms of educating in questioning the students of group. The mobile program «Plickers», set on a tablet or mobile phone of teacher, reads QR-codes from the paper cards of students. A computer or notebook and projector with an open website «Plickers» in the mode of Live of viewing allow to the students to look over questions. At the end of research the results are represented on the screen, because the program shows statistics of answers and creates the diagram based on her analysis.

A developer Netcrate Software developed the program Easy Quizzzy for satisfaction of very simple requirements in tests and quizzes. An interface is simple and clear, creation of tests also takes not plenty of time. Authors of project – Andrey Shkuropii and Ilya Polsakov. It was done in Ukraine. The program Easy Quizzzy is one of the most comfortable programs at short time verification of students' knowledge in daily lessons, at preparation to examinations, at verification of final students' knowledge in higher schools and etc [8].

It is easy and rapid to make tests and quizzes with this program, and it may be opened in any Windows platforms. There are no limits to the volume of tests and each question may contain a few answers. It isn't necessary to install additional programs to open tests made on Easy Quizzzy program. These kinds of tests can be copied from the USB flash or compact disks and sent by e-mail or copied to all computers. To open a test, it is enough to start a file. The editor of tests EasyQuizzzy allows to create a test in Russian, Ukrainian, Belarussian, Kazakh, Uzbek, Tadjik, Tatar, Armenian, Georgian and and other 21 languages. In test the next types of questions are used: alternative choice, choice of one right answer, denotation of a few right answers, establishment of correct accordance and free answer. It is possible to put an image, formula (with the editor of formulas Microsoft Equation and Design Science MathType) and special symbols to the questions and answers.

It is possible to make tests on next languages: English, Bulgarian, French, German, Kazakh, Latvian, Polish, Portuguese, Russian and Ukrainian. After opening of file we choose a necessary language.

How is testing conducted? At testing of test interface it is enough to choose and confirm a right variant to answer a question only, without thinking how to use the program. A recommendable mark is proposed in the end of testing, and also protocol is appeared and showed on a sheet with pointing of right and wrong answer. It is a rapid and formative method of assessment on 40-minute lesson. Also you can save a final answer pressing on it and send by e-mail.

Interactive methodology embraces the wide spectrum of mutual relations. Nevertheless, in spite of methodological approach, students' vital practice is the

basic source of education. The following communications consist in the educational process:

- With teacher (when the students answer the teacher's questions);
- With another students (in group works)
- With small groups (with 3-5 students);
- With big groups (mostly debate, when the class discuss any problems);
- With groups of students and people (the group conducts a social quiz);
- With some techniques (for example, computers);

Conclusions

The main condition of students' successful mastering of disciplines begins with that how teacher can cause their interest to the lesson. ICT is a device that strengthens possibilities of teacher, but it cannot replace a teacher. Aim of the use of ICT is conducting the lesson with computer accompaniment, that is:

- Assistance to upgrading of educating through Computer;
- With expansion of educating zone the accordance of level of student's knowledge to the social necessities of society;
- Introduction of computer technologies into early traditional disciplines, increase of possibilities of its mastering.

By means of introduction of the computer testing a feed-back about efficiency and maintenance of teacher's work is provided. In case of computer general control all students will be given questions or tasks of identical maintenance. During their implementation there arises sense of solidarity and partnership between students, they put questions to each other, complement answers and mutually check the executed works.

It is known that computer based teaching has its own goal, maintenance, form and specific method of realization. Among them tests are conducted to determine the knowledge of students, with the purpose of realization of these tests we offer the programs «Pliskers» and «Easy Quizzy». It is possible to save time by means of these programs, determining the level of knowledge of every student, and also to make sure in that the student have a reliable estimation of the answers got by them. It is possible to specify at the end of the test, what questions were answered correctly and wrong. It is also possible to save the sheet of answers with passed date.

Mastering of new educational technologies is a requirement of modern society. Information technology is one of the *new educational technologies*. If we use such programs in an educational process as «Pliskers» and «Easy Quizzy» we hope that there will be formed competitive personality to modern requirements.

References

1 Growth of welfare of Kazakhstan: improvement of income and living standards. The Message of the President of the Republic of Kazakhstan. October 5, 2018. – URL: http://www.akorda.kz/kz/addresses/addresses_of_president/memleket-basshysy-nanazarbaevtyyn-kazakistan-halkyna-zholdauy-2018-zhylygy-5-kazan (Date of Access 04.02.2019)

2 **Zhaletova, D. Zh.** Concepts and terms used within the framework of the renewed maintenance of education. – Uralsk, 2016. – P. 19.

3 **Ayaganova, L.** «New technologies – at the lesson». – 2003. – P. 63.

4 **Istemirov, N.** «Modern pedagogical technologies and training aids», 2007.

5 **Ostanniy, D. O., Mikhailov, E. I.** Interactive Testing Technology Plickers// Young scientist. – 2018. – No 1. – Pp. 33–41. – URL: <http://yun.moluch.ru/archive/15/1095/> (Date of Access 01.12.2018)

6 **Boribayev, B., Balapanov, E.** «New information technologies». – Almaty, 2003.

7 Instruction on work with social service Plickers [Electronic resource]. – 2017. – URL: <https://ikt.ipk74.ru/upload/iblock/38c/38c327a8a55fbdacf70d473b8ff39c29.pdf> (date of address: 21.01.2019)

8 Creation of tests on Easy Quizzy program [Electronic resource]. – 2017. – URL: <http://mugalimder.kz/new/724-easy-quizzy-badarlamasynda-test-zhasatau.html> (date of address: 29.01.2019)

9 **Akhmetkaliyeva, S.** New teaching approaches on the renewed maintenance of education. [Electronic resource]. – 2017. – URL: <http://tarym.kz/zhangartyilgan-bilim-beru-mazmunyi-boyyinsha-okyitudagyi-zhanga-adis-tasilder.html> (date of address: 04.02.2019)

10 <https://newtonew.com/overview/plickers-uchitelja-smogut-sekonomit-svoe-vremja-s-pomoshchju-qr-kodov> [Electronic resource].

Material received on 15.12.20.

З. К. Аймаганбетова, Е. А. Эбрахманов, А. М. Қалыбаева

Физиканы оқыту тәжірибесіне жаңартылған бағдарлама идеясын енгізу

Қ. Жұбанов университеті,

Қазақстан Республикасы, Ақтөбе қ.

Материал 15.12.20 баспаға түсті.

З. К. Аймаганбетова, Е. А. Әбдрахманов, А. М. Қалыбаева

Внедрение обновленной программной идеи в практику преподавания физики

К. Жубанов университет,
Республика Казахстан, г. Актобе.
Материал поступил в редакцию 15.12.20.

Білім беру үрдісін ақпараттандыру – жаңа ақпараттық технологияларды пайдалану арқылы дамыта оқыту, дара тұлғаны бағыттап оқыту мақсаттарын жүзеге асыра отырып, оқу-тәрбие үрдісінің барлық деңгейлерінің тиімділігі мен сапасын арттыруды негіздейді. Қазақстан Республикасының «Білім туралы» заңында: «Білім беру жүйесінің басты міндеті – ұлттық және азаматтық құндылықтар мен практика жетістіктері негізінде, жеке адамды қалыптастыруға және кәсіби шыңдауға бағытталған білім алу үшін қажетті жағдайлар жасау, оқытудың жаңа технологияларын енгізу, білім беруді ақпараттандыру, халықаралық ғаламдық коммуникациялық желіге шығу», – делінген.

Осыған орай бүгінгі оқытушылардың алдында студентке білім, білік дағдыларын игертіп қана қоймай, қабылдауын, ойлауын, қиялын, сезімдерін, яғни жан-жақты, азат, шығармашыл, өз бетімен, бәсекеге қабілетті жеке тұлғаны дамыту міндеттері тұр.

Білім мен ғылымның даму бағытында жаңа инновациялық технологияларды дамыту үлкен мақсатымыздың бірі болып табылады. Осыған орай мейлінше ақпараттық технологияларды, жаңа оқыту әдістерін қолданысқа енгізу өзекті мәселелердің біріне айналып отыр.

Қазіргі оқыту барысында қолданылып жүрген көптеген технологиялар жеке тұлғаның жетілуіне, оқытудың тиімділігінің негізін құруға бағытталған. Соның бірі – ақпараттық-коммуникациялық технологияларды пайдалану білім сапасын арттырудың тиімді жолы болып отыр.

Кілтті сөздер: Plickers, Easy Quizzy, технология, QR-код, жаңартылған білім беру мазмұны, АКТ, Интернет, интерактивті тестілеу.

Информационное обеспечение образовательного процесса базируется на повышении эффективности и качества всех уровней образовательного процесса, достижениях целей развивающего обучения с использованием новых информационных технологий и направленности

обучения личности. В Законе Республики Казахстан «Об образовании»: «Основная задача системы образования – создать условия образования, направленные на формирование личности и профессиональное развитие на основе национальных и гражданских ценностей и достижений практики, установить новые образовательные технологии, информационное обеспечение образовательного процесса, выйти в мировую международную коммуникативную сеть», – было написано. Тем самым перед преподавателями стоят определенные задачи, не только дать знания учащимся, но и развить многогранную, свободную, творческую и конкурентоспособную личность.

Одна из наших основных целей – разработка новых инновационных технологий в развитии образования и науки. В связи с этим внедрение новых информационных технологий, новых методов обучения становится одной из самых актуальных проблем.

Многие современные технологии, используемые в образовательном процессе, направлены на развитие личности и эффективное обучение. Один из них – использование информационно-коммуникационных технологий – является эффективным способом повышения качества знаний.

Ключевые слова: Plickers, Easy Quizzy, технология, QR-код, обновленное содержание образования, ИКТ, интернет, интерактивный тест.

Теруге 29.12.2020 ж. жіберілді. Басуға 11.01.2021 ж. қол қойылды.

Электронды баспа

2,93 Мб RAM

Шартты баспа табағы 38,0.

Таралымы 300 дана. Бағасы келісім бойынша.

Компьютерде беттеген З. С. Исакова

Корректорлар: А. Р. Омарова

Тапсырыс № 3720

Сдано в набор 29.12.2020 г. Подписано в печать 11.01.2021 г.

Электронное издание

2,93 Мб RAM

Усл.п.л. 38,0. Тираж 300 экз. Цена договорная.

Компьютерная верстка З. С. Исакова

Корректор: А. Р. Омарова

Заказ № 3720

«Toraighyrov University» баспасынан басылып шығарылған

Торайғыров университеті

140008, Павлодар қ., Ломов к., 64, 137 каб.

«Toraighyrov University» баспасы

Торайғыров университеті

140008, Павлодар қ., Ломов к., 64, 137 каб.

8 (7182) 67-36-69

e-mail: kereku@tou.edu.kz

www.vestnik.tou.edu.kz