

ISSN 1991-346X

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ
ҰЛТТЫҚ ҒЫЛЫМ АКАДЕМИЯСЫНЫҢ

Х А Б А Р Л А Р Ы

ИЗВЕСТИЯ

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК
РЕСПУБЛИКИ КАЗАХСТАН

NEWS

OF THE NATIONAL ACADEMY OF SCIENCES
OF THE REPUBLIC OF KAZAKHSTAN

**ФИЗИКА-МАТЕМАТИКА
СЕРИЯСЫ**



СЕРИЯ

ФИЗИКО-МАТЕМАТИЧЕСКАЯ



**PHYSICO-MATHEMATICAL
SERIES**

6 (304)

**ҚАРАША – ЖЕЛТОҚСАН 2015 ж.
НОЯБРЬ – ДЕКАБРЬ 2015 г.
NOVEMBER – DECEMBER 2015**

1963 ЖЫЛДЫҢ ҚАҢТАР АЙЫНАН ШЫҒА БАСТАҒАН
ИЗДАЕТСЯ С ЯНВАРЯ 1963 ГОДА
PUBLISHED SINCE JANUARY 1963

ЖЫЛЫНА 6 РЕТ ШЫҒАДЫ
ВЫХОДИТ 6 РАЗ В ГОД
PUBLISHED 6 TIMES A YEAR

АЛМАТЫ, ҚР ҰҒА
АЛМАТЫ, НАН РК
ALMATY, NAS RK

Б а с р е д а к т о р

ҚР ҰҒА академигі,

Мұтанов Г. М.

Р е д а к ц и я а л қ а с ы:

физ.-мат. ғ. докторы, проф., ҚР ҰҒА академигі **Әшімов А.А.**; техн. ғ. докторы, проф., ҚР ҰҒА академигі **Байгүнчеков Ж.Ж.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА академигі **Жұмаділдаев А.С.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА академигі **Қалменов Т.Ш.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА академигі **Мұқашев Б.Н.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА академигі **Өтелбаев М.О.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА академигі **Тәкібаев Н.Ж.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА академигі **Харин С.Н.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА корр. мүшесі **Әбішев М.Е.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА корр. мүшесі **Жантаев Ж.Ш.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА корр. мүшесі **Қалимолдаев М.Н.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА корр. мүшесі **Косов В.Н.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА корр. мүшесі **Мұсабаев Т.А.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА корр. мүшесі **Ойнаров Р.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА корр. мүшесі **Рамазанов Т.С.** (бас редактордың орынбасары); физ.-мат. ғ. докторы, проф., ҚР ҰҒА корр. мүшесі **Темірбеков Н.М.**; физ.-мат. ғ. докторы, проф., ҚР ҰҒА корр. мүшесі **Өмірбаев У.У.**

Р е д а к ц и я к е ñ е с і:

Украинаның ҰҒА академигі **И.Н. Вишневский** (Украина); Украинаның ҰҒА академигі **А.М. Ковалев** (Украина); Беларусь Республикасының ҰҒА академигі **А.А. Михалевич** (Беларусь); Әзірбайжан ҰҒА академигі **А. Пашаев** (Әзірбайжан); Молдова Республикасының ҰҒА академигі **И. Тигиняну** (Молдова); мед. ғ. докторы, проф. **Иозеф Банас** (Польша)

Главный редактор

академик НАН РК

Г. М. Мутанов

Редакционная коллегия:

доктор физ.-мат. наук, проф., академик НАН РК **А.А. Ашимов**; доктор техн. наук, проф., академик НАН РК **Ж.Ж. Байгунчеков**; доктор физ.-мат. наук, проф., академик НАН РК **А.С. Джумадильдаев**; доктор физ.-мат. наук, проф., академик НАН РК **Т.Ш. Кальменов**; доктор физ.-мат. наук, проф., академик НАН РК **Б.Н. Мукашев**; доктор физ.-мат. наук, проф., академик НАН РК **М.О. Отелбаев**; доктор физ.-мат. наук, проф., академик НАН РК **Н.Ж. Такибаев**; доктор физ.-мат. наук, проф., академик НАН РК **С.Н. Харин**; доктор физ.-мат. наук, проф., чл.-корр. НАН РК **М.Е. Абишев**; доктор физ.-мат. наук, проф., чл.-корр. НАН РК **Ж.Ш. Жантаев**; доктор физ.-мат. наук, проф., чл.-корр. НАН РК **М.Н. Калимолдаев**; доктор физ.-мат. наук, проф., чл.-корр. НАН РК **В.Н. Косов**; доктор физ.-мат. наук, проф., чл.-корр. НАН РК **Т.А. Мусабаев**; доктор физ.-мат. наук, проф., чл.-корр. НАН РК **Р. Ойнаров**; доктор физ.-мат. наук, проф., чл.-корр. НАН РК **Т.С. Рамазанов** (заместитель главного редактора); доктор физ.-мат. наук, проф., чл.-корр. НАН РК **Н.М. Темирбеков**; доктор физ.-мат. наук, проф., чл.-корр. НАН РК **У.У. Умирбаев**

Редакционный совет:

академик НАН Украины **И.Н. Вишневский** (Украина); академик НАН Украины **А.М. Ковалев** (Украина); академик НАН Республики Беларусь **А.А. Михалевич** (Беларусь); академик НАН Азербайджанской Республики **А. Пашаев** (Азербайджан); академик НАН Республики Молдова **И. Тигиняну** (Молдова); д. мед. н., проф. **Иозеф Банас** (Польша)

«Известия НАН РК. Серия физико-математическая». ISSN 1991-346X

Собственник: РОО «Национальная академия наук Республики Казахстан» (г. Алматы)

Свидетельство о постановке на учет периодического печатного издания в Комитете информации и архивов Министерства культуры и информации Республики Казахстан №5543-Ж, выданное 01.06.2006 г.

Периодичность: 6 раз в год.

Тираж: 300 экземпляров.

Адрес редакции: 050010, г. Алматы, ул. Шевченко, 28, ком. 219, 220, тел.: 272-13-19, 272-13-18,

www.nauka-nanrk.kz / physics-mathematics.kz

© Национальная академия наук Республики Казахстан, 2015

Адрес типографии: ИП «Аруна», г. Алматы, ул. Муратбаева, 75.

Editor in chief

G. M. Mutanov,
academician of NAS RK

Editorial board:

A.A. Ashimov, dr. phys-math. sc., prof., academician of NAS RK; **Zh.Zh. Baigunchekov**, dr. eng. sc., prof., academician of NAS RK; **A.S. Dzhumadildayev**, dr. phys-math. sc., prof., academician of NAS RK; **T.S. Kalmenov**, dr. phys-math. sc., prof., academician of NAS RK; **B.N. Mukhashev**, dr. phys-math. sc., prof., academician of NAS RK; **M.O. Otelbayev**, dr. phys-math. sc., prof., academician of NAS RK; **N.Zh. Takibayev**, dr. phys-math. sc., prof., academician of NAS RK; **S.N. Kharin**, dr. phys-math. sc., prof., academician of NAS RK; **M.Ye. Abishev**, dr. phys-math. sc., prof., corr. member of NAS RK; **Zh.Sh. Zhantayev**, dr. phys-math. sc., prof., corr. member of NAS RK; **M.N. Kalimoldayev**, dr. phys-math. sc., prof., corr. member of NAS RK; **V.N. Kosov**, dr. phys-math. sc., prof., corr. member of NAS RK; **T.A. Mussabayev**, dr. phys-math. sc., prof., corr. member of NAS RK; **R. Oinarov**, dr. phys-math. sc., prof., corr. member of NAS RK; **T.S. Ramazanov**, dr. phys-math. sc., prof., corr. member of NAS RK (deputy editor); **N.M. Temirbekov**, dr. phys-math. sc., prof., corr. member of NAS RK; **U.U. Umirbayev**, dr. phys-math. sc., prof., corr. member of NAS RK

Editorial staff:

I.N. Vishnievski, NAS Ukraine academician (Ukraine); **A.M. Kovalev**, NAS Ukraine academician (Ukraine); **A.A. Mikhalevich**, NAS Belarus academician (Belarus); **A. Pashayev**, NAS Azerbaijan academician (Azerbaijan); **I. Tighineanu**, NAS Moldova academician (Moldova); **Joseph Banas**, prof. (Poland).

News of the National Academy of Sciences of the Republic of Kazakhstan. Physical-mathematical series.
ISSN 1991-346X

Owner: RPA "National Academy of Sciences of the Republic of Kazakhstan" (Almaty)

The certificate of registration of a periodic printed publication in the Committee of information and archives of the Ministry of culture and information of the Republic of Kazakhstan N 5543-Ж, issued 01.06.2006

Periodicity: 6 times a year

Circulation: 300 copies

Editorial address: 28, Shevchenko str., of. 219, 220, Almaty, 050010, tel. 272-13-19, 272-13-18,

www.nauka-nanrk.kz / physics-mathematics.kz

© National Academy of Sciences of the Republic of Kazakhstan, 2015

Address of printing house: ST "Aruna", 75, Muratbayev str, Almaty

NEWS

OF THE NATIONAL ACADEMY OF SCIENCES OF THE REPUBLIC OF KAZAKHSTAN

PHYSICO-MATHEMATICAL SERIES

ISSN 1991-346X

Volume 6, Number 304 (2015), 127 – 133

ASSESSING STUDENT LEARNING IN GENERAL EDUCATION**G.B. Issayeva, N. Kylyshpaeva**Guka_issayeva@mail.ru

Kazakh State Women's Teacher Training University, Almaty

Key words: Assessing, promoting, bloom's taxonomy, feedback.

Abstract. This article will address issues monitoring and evaluation of students' knowledge in higher education. Assessment is a central element in the overall quality of teaching and learning in higher education. Well designed assessment sets clear expectations, establishes a reasonable workload and provides opportunities for students to self-monitor, rehearse, practice and receive feedback. Classroom assessment and grading practices have the potential not only to measure and report learning but also to promote it. Indeed, recent research has documented the benefits of regular use of diagnostic and formative assessments as feedback for learning (Black, Harrison, Lee, Marshall, & Wiliam, 2004). Like successful athletic coaches, the best teachers recognize the importance of ongoing assessments and continual adjustments on the part of both teacher and student as the means to achieve maximum performance. Unlike the external standardized tests that feature so prominently on the school landscape these days, well-designed classroom assessment and grading practices can provide the kind of specific, personalized, and timely information needed to guide both learning and teaching.

**КРИТЕРИЙ ОЦЕНИВАНИЯ ЗНАНИЙ СТУДЕНТОВ
ВЫСШЕГО УЧЕБНОГО ЗАВЕДЕНИЯ****Исаева Г.Б., к.п.н., доцент, Н. Кылышбаева, магистр**Guka_issayeva@mail.ru

Казахский Государственный Женский Педагогический Университет, г.Алматы

Ключевые слова: оценивание, контроль, таксономия Блума, обратная связь.

Аннотация. В этой статье были рассмотрены вопросы контроля и оценивания знаний студентов высшего учебного заведения. Даны определения таких понятий как, оценивания, контроль и критерий оценивания. Приведены примеры Bloom's Таксономии. А так же рассмотрены пути эффективного оценивания знаний студентов. Хорошо разработанная оценка устанавливает ясные ожидания, устанавливает разумную рабочую нагрузку и предоставляет возможности студентам самоконтролировать, репетировать, практиковать и получить обратную связь. У оценки класса и методов аттестации есть потенциал не только, чтобы измерить и сообщить, что учение лишь также продвигает его. Действительно, недавнее исследование зарегистрировало выгоду регулярного использования диагностических и формирующих оценок как обратная связь для изучения (Black, Harrison, Lee, Marshall, & Wiliam, 2004). Как успешные тренеры, лучшие учителя признают важность продолжающихся оценок и непрерывных регуляторов и со стороны учителя и со стороны студента как средства достигнуть максимальной производительности. В отличие от внешних стандартизированных тестов, которые показывают так заметно на школьном пейзаже в эти дни, могут обеспечить хорошо разработанная оценка класса и методы аттестации, отчасти определенная, персонализированная, и своевременная информация должна вести и изучение и обучение.

Assessing is the ongoing and frequent process of collecting, analyzing and recording of information about student progress towards the achievement of unit of study learning outcomes. It is the process of identifying, gathering and interpreting information about students' learning. An important process of assessment is to determine what students *know* and *can do* in order to assist in designing, modifying and extending appropriate learning and teaching programmes for all students, and adapting teaching methods

via reflection and evaluation. The central purpose of assessment is to provide information on student achievement and progress and set the direction for ongoing learning and teaching. (adapted from NSW Board of Studies, 1999) [1].

The ideas and strategies in the *Assessing Student Learning* resources three interrelated objectives for quality in student assessment in higher education.

Three object for higher education assessment	1. Assessment that guides and encourages effective approaches to learning;
	2. Assessment that validly and reliably measures expected learning outcomes, in particular the higher-order learning that characterizes higher education;
	3. Assessment and grading that defines and protects academic standards.

The relationship between assessment practices and the overall quality of teaching and learning is often underestimated, yet assessment requirements and the clarity of assessment criteria and standards significantly influence the effectiveness of student learning. Carefully designed assessment contributes directly to the way student approach their study and therefore contributes indirectly, but powerfully, to the quality of their learning[2].

For most students, assessment requirements literally define the curriculum. Assessment is therefore a potent strategic tool for educators with which to spell out the learning that will be rewarded and to guide student into effective approaches to study[18]. Equally, however, poorly designed assessment has the potential to hinder learning or stifle curriculum innovation.

Why assess?

- Formative Assessment
- Progression
- Classification
- Warranty

The purpose of assessment – summary

- To select
- To certify
- To describe
- To assist learning
- To improve teaching
- To satisfy stakeholders

What do we want to assess?

- Skills?
- Knowledge?
- Attitudes?[3]

Classroom assessment falls into three categories that serve different purposes.

Summative assessments summarize what students have learned at the end of a period of time. These include tests, final exams, culminating projects, and portfolios. These scores appear on report cards and transcripts, but are not really useful as learning tools. They come at the end of the teaching/learning experience.

Diagnostic assessments precede instruction. Teachers can “check students’ prior knowledge and skill levels, identify student misconceptions, profile learners’ interests, and reveal learning style preferences. Diagnostic assessments provide information to assist teacher planning and guide differentiated instruction.”* (McTighe and O’Connor) These assessments are not graded, they guide the teaching process.

Formative assessments are ongoing and give feedback to students and teachers to guide teaching to improve learning. Included are oral questioning, observations, draft work, think-alouds, learning logs and portfolio previews.

Assessment and grading can measure and report learning, it can also promote learning and teaching [4.] Here are some assessment strategies toward that end.

- Present the performance assessment tasks to the students at the beginning of a unit of study. They will know what to anticipate and will be able to focus on what the teachers expects them to learn and what they will have to do with the knowledge.
- Show models of work that illustrate the levels of quality expected. A four point rubric communicates to the student the elements of quality and the standard used for evaluation. This gives the student a goal for their work.
- Offer a few good choices that match the goal of the content standard – assessment gains meaning for the learner when there are options for demonstrating knowledge, understanding and skills.
- Provide feedback that is timely and specific regarding the student’s strengths and weaknesses. Note areas of improvement and what the students need to work on in the future. Consider allowing the student to revise and refine their work based on the feedback, within a reasonable time period.
- Encourage self-evaluation and the students will become capable of knowing how they are doing and what they need to improve[5].

These assessment strategies address factors that motivate students to learn. Students put effort into their work when they know the learning goal and how they will be evaluated; when they think the goals and assessments are meaningful and relevant; when they believe they can successfully learn and meet the evaluation expectations[6].

The most effective learners set personal learning goals, employ proven strategies, and self-assess their work. Teachers help cultivate such habits of mind by modeling self-assessment and goal setting and by expecting students to apply these habits regularly[7].

Rubrics can help students become more effective at honest self-appraisal and productive self-improvement. In the rubric in Figure 1, students verify that they have met a specific criterion—for a title, for example—by placing a check in the lower left-hand square of the applicable box[8]. The teacher then uses the square on the right side for his or her evaluation. Ideally, the two judgments should match. If not, the discrepancy raises an opportunity to discuss the criteria, expectations, and performance standards. Over time, teacher and student judgments tend to align. In fact, it is not unusual for students to be harder on themselves than the teacher is[9].

	Title	Labels	Accuracy	Neatness
3	The graph contains a title that clearly tells what the data show.	All parts of graph (units of measurement, rows, etc.) are correctly labeled.	All data are accurately represented on the graph.	The graph is very neat and easy to read.
2	The graph contains a title that suggests what the data show	Some parts of the graph are inaccurately labeled.	Data representation contains minor errors.	The graph is generally neat and readable.
1	The title does not reflect what the data show OR the title missing.	The graph is incorrectly labeled OR labels are missing.	The data are inaccurately represented, contain major errors, OR are missing.	The graph is sloppy and difficult to read.

The rubric also includes space for feedback comments and student goals and action steps. Consequently, the rubric moves from being simply an evaluation tool for “pinning a number” on students to a practical and robust vehicle for feedback, self-assessment, and goal setting[10].

Initially, the teacher models how to self-assess, set goals, and plan improvements by asking such prompting questions as,

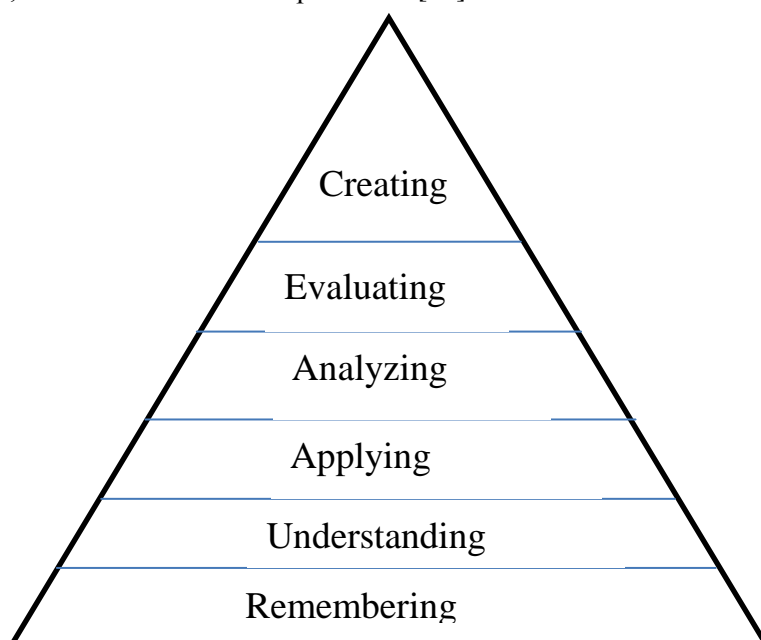
- What aspect of your work was most effective?
- What aspect of your work was least effective?
- What specific action or actions will improve your performance?
- What will you do differently next time?

Questions like these help focus student reflection and planning. Over time, students assume greater responsibility for enacting these processes independently[11].

Educators who provide regular opportunities for learners to self-assess and set goals often report a change in the classroom culture[12].

Teachers can use a variety of practical pre-assessment strategies, including pre-tests of content knowledge, skills checks, concept maps, drawings, and K-W-L (Know-Want to learn-Learn) charts. Powerful pre-assessment has the potential to address a worrisome phenomenon reported in a growing body of literature (Bransford, Brown, & Cocking, 1999; Gardner, 1991): A sizeable number of students come into school with misconceptions about subject matter (thinking that a heavier object will drop faster than a lighter one, for example) and about themselves as learners (assuming that they can't and never will be able to draw, for example). If teachers don't identify and confront these misconceptions, they will persist even in the face of good teaching[13]. To uncover existing misconceptions, teachers can use a short, nongraded true-false diagnostic quiz that includes several potential misconceptions related to the targeted learning. Student responses will signal any prevailing misconceptions, which the teacher can then address through instruction. In the future, the growing availability of portable, electronic student-response systems will enable educators to obtain this information instantaneously[14].

Responsiveness in assessment is as important as it is in teaching. Students differ not only in how they prefer to take in and process information but also in how they best demonstrate their learning. Some students need to “do”; others thrive on oral explanations[15].



Bloom's Taxonomy (Revised)

- Remembering: recall or remember
- Applying: use the information in a new way
- Analyzing: interpret, find meaning, distinguish
- Evaluating: make judgments, assess
- Creating: create new product or point of view

Example: Goldilocks and Bloom's Taxonomy

- Remember: How many bears are in the story?
- Understand: Use your knowledge of motivation to explain why Goldilocks and what does this tell house.
- Analyze: How did the bears respond when they found Goldilocks and what does this tell you about their personalities?
- Evaluate: Many cultures have a version of the Goldilocks story – assess the reason for this.
- Create: Compose a song, skit, poem, or rap to convey Goldilocks story in a new form[16].

Modes of assessment

1. Function

Diagnostic – To determine the starting level of knowledge / ability

Formative – Feedback, to help the learner to improve next time.

Summative – For grades / marks, to give level of attainment.

2. Type

Product – e.g. An essay, a report a design drawing, a poster.

Process – e.g. group working, Communication skills, problem solving.

3. Process

Criterion referenced-

- E.g. the driving test

- Given standards against which each student is individually judged.

Norm referenced-

- E.g. accountancy exams,

- Students judged against their peers[17].

Assessment Criteria

- Describe the extent to which a learning outcome has been achieved.

- They provide grounds for judging quality and therefore marking.

- They help make assessment decisions more transparent and this helps co-markers and students[18].

The ways we assess our students can really make a difference to how students learn. There are multiple and complex problems to resolve and solutions are not easy to find (or the brightest minds in the world would have done so already), permanent (as we have to deal with an ever – changing), (or universal (assessment is an area where context is of paramount importance; what works well in a medical environment probably doesn't work equally well in a poetry workshop, although there might be some interesting cross-overs). So we are left with the need for professional higher education practitioners to take the lead in ensuring that we do not allow the process to slip out of our hands. We cannot let bureaucratic regulations (whether from within our institutions or nationally) to skew our effective assessment processes[19]. If we find our systems do not allow us to implement a really valuable assessment innovation, for example, then we must find ways to change the system. We need to ensure that decisions about assessment strategies are based on the best available evidence - based research on assessment, rather than on custom and practice or what is easy to do. So we need to keep abreast of new developments, evaluate tried and tested ones and experiment with our own initiatives, preferably within a supportive learning community of fellow practitioners[20].

ЛИТЕРАТУРА

[1] Аванесов В.С. Композиция тестовых заданий: Учебная книга. 3-е изд., доп. – М.: Центр тестирования, 2002 - 240 с.

[2] Аканов А., Мирзабеков О., Ахметов В. и др. Болонский процесс – путь КазНМУ в общеевропейское образовательное пространство. – Алматы: КазНМУ им. С.Д. Асфендиярова, 2010.

[3] Аканов А.А., Хамзина Н.К., Ахметов В.И. и др. Казахский национальный медицинский университет имени С.Д. Асфендиярова: на пути инновационных преобразований. – Алматы: КазНМУ им. С.Д. Асфендиярова, 2010.

[4] Амиров Н. Медицинская газета, 19.11.2010. 5. Бадмаев Б.Ц. Методика преподавания психологии: Учеб.-метод. пособие для преподават. и аспирантов вузов. – М.: Гуманит. изд. центр ВЛАДОС, 1999. – 304 с. – С. 74

[5] Барбара Миллер. Воспитание граждан: переосмысление подхода к оценке учеников) по материалам сайта - <http://charko.narod.ru>

[6] Беспалько В.П. Слагаемые педагогической технологии. - М.: Педагогика, 1989. - 190 с. 8. Вербицкий А.А. Новая образовательная парадигма и контекстное обучение. М. ИЦ, 1999.

[7] Гуляева С.П. Портфолио: рекомендации по созданию и использованию в предпрофильной подготовке / С.П.Гуляева.- Новокузнецк: изд-во МОУ ДПО ИПК, 2005. – 73 с.

[8] Два десятилетия реформ в высшем образовании Европы: 1980 и далее, Euridyce Studies, Euridyce European Unit, Brussels, 2000. <http://www.euridyce.org>

[9] Джонсон Д., Джонсон Р., Джонсон-Холубек Э. Методы обучения. Обучение в сотрудничестве.

[10] Загашаев И.О., Заир-Бек С.И. Критическое мышление: технология развития. Перспективы для высшего образования. – М., 2002. - С. 265.

- [11] Загвоздкин В.К. Роль портфолио в учебном процессе. Некоторые психолого-педагогические аспекты // Психологическая наука и образование. - № 4, 2004.
- [12] Заир-Бек Е.С. Основы педагогического проектирования СПб. 1995. 15. Калмыкова И.Р. Портфолио как средство самоорганизации и саморазвития личности // Образование в современной школе.
- [13] Кейс С.М., Свэнсон Д.Б. Создание письменных тестовых вопросов по базисным и клиническим дисциплинам. - Национальный Совет Медицинских Экзаменаторов, - Филадельфия, Пенсильвания 1996.
- [14] Кодекс Республики Казахстан о здоровье народа и системе здравоохранения (с изменениями и дополнениями по состоянию на 30.06.2010 г.) 18. Михайлычев Е.А. Дидактическая тестология. – М., 2001. – 432 с.
- [15] Муминов Т.А., Даулетбакова М.И. Инновационные технологии в образовательном процессе медицинских вузов. – Алматы: КазНМУ им. С.Д. Асфендиярова, 2003. – 144 с.
- [16] Наумов Л.Б. Оптимизация обучения в медицинском институте. Программированное руководство для преподавателей Медицинских Институтов. – Новосибирск, 1978. – 419 с.
- [17] Новаторов Э.В. Организация подготовки маркетологов в США / Маркетинг в России и за рубежом / №2 / 2003.
- [18] Новикова Т.Г. Анализ разработки портфолио на основе зарубежного опыта / Т.Г.Новикова // Развитие образовательных систем в контексте модернизации образования. – М.: Academia; АПКИПРО, 2003.
- [19] Пинский А.А. Рекомендации по построению различных моделей «портфолио» учащихся основной школы // Образование в современной школе.
- [20] Профессиональная компетентность и мобильность педагогических кадров. Социальнопедагогические и психологические аспекты (материалы конференции). - СПб., ИОВ РАО, 1994. - 193 с.
- [21] Слуща десять лет и глядя вперед: обзор преобразований в высшем образовании Центральной и Восточной Европы. Труды по высшему образованию, СЕРЕС/ЮНЕСКО, Бухарест, 2000.
- [22] Формирование общества, основанного на знаниях: Новые задачи высшей школы Доклад Всемирного Банка. Издательство «Весь Мир», 2003.
- [23] Смыковская Е.П. Возможности использования кредитно-зачетных систем в осуществлении контроля и оценки качества высшего образования// Доклад на Международной научно-практической конференции «Многоступенчатое университетское образование: от эффективного преподавания к эффективному учению» (Минск, 15-16 мая 2003г.).
- [24] Т.П. Каратаева Опыт использования рейтинговой оценки знаний на химическом факультете// Доклад на Международной научно-практической конференции «Многоступенчатое университетское образование: от эффективного преподавания к эффективному учению» (Минск, 15-16 мая 2003г.).
- [25] Кредитная система обучения в вузе: структура, процедуры и организация. – Алматы: МАБ, 2004.
- [26] Кулекеев Ж.А. Пивень Г.Г., Нургужин М.Р. Система менеджмента качества организаций высшего профессионального образования. Теория и практика. - Караганда, 2004.
- [27] Мухамбетова С.К., Жарменова Г.С., Дарибаева С.К. Методика обучения психологии. –Алматы, 2007.
- [28] Оразбаева Ф.Ш. Теория и методика языкового общения. –Алматы, 2000. –190-191с.
- [29] Кузекова З. Казахский язык. Теория и практика тестирования. –Алматы, 2009. –156 с.
- [30] Формирование общества, основанного на знаниях: Новые задачи высшей школы Доклад Всемирного Банка. Издательство «Весь Мир», 2003.

REFERENCES

- [1] Avanesov of V. S. Kompozition of test tasks: Educational book. 3rd prod., additional – М.: Center of testing, 2002 - 240 pages.
- [2] Akanov A., Mirzabekov O., Akhmetov V., etc. Bologna Process – a way KAZNMU in the all-European educational space. – Алматы: КазНМУ of S. D. Asfendiyarov, 2010.
- [3] Akanov A.A., Hamzina N. K., Akhmetov V. I., etc. The Kazakh national medical university of S. D. Asfendiyarov: on the way of innovative transformations. – Алматы: КазНМУ of S. D. Asfendiyarov, 2010.
- [4] Amirov N. Meditsinskaya newspaper, 19.11.2010. 5. Badmayev of B. Ts. Metodik of teaching psychology: Studies. - a method. for to teach a grant. and graduate students of higher education institutions. – М.: Gumanit. prod. VLADOS center, 1999. – 304 pages – Page 74
- [5] Barbara Miller. Education of citizens: reconsideration of approach to an assessment of pupils) on site materials - <http://charko.narod.ru>
- [6] Bepalko V.P. Composed pedagogical technology. - М.: Pedagogics, 1989. - 190th page 8. Verbitsky A.A. New educational paradigm and contextual training. ITs m, 1999.
- [7] Gulyaeva S. P. Portfolio: recommendations about creation and use in preprofile preparation / S.P.Gulyaeva. - Novokuznetsk: publishing house of DPO IPK Municipal Educational Institution, 2005. – 73 pages.
- [8] Two decades of reforms in the higher education of Europe: 1980 and further, Euridyce Studies, Euridyce European Unit, Brussels, 2000. <http://www.euridyce.org>
- [9] Johnson D., Johnson R., Johnson-Holubek E. Training methods. Training in cooperation.
- [10] Zagashayev I.O., Zaire Beck S. I. Critical thinking: technology of development. Prospects for the higher education. – М, 2002. - Page 265.
- [11] Zagvozdkin V. K. Rol of a portfolio in educational process. Some psychology and pedagogical aspects//Psychological science and education. - No. 4, 2004.

- [12] Zaire Beck E.S. Bases of pedagogical design of SPb. 1995. 15. Kalmykova I.R. A portfolio as means of self-organization and self-development of the personality//Education at modern school.
- [13] Case S.M., Svensson D.B. Creation of written test questions on basic and clinical disciplines. - National council of Medical Examiners, - Philadelphia, Pennsylvania 1996.
- [14] The code of the Republic of Kazakhstan about health of the people and health system (with changes and additions as of 30.06.2010) 18. Mikhaylychev E.A. Didakticheskaya testologiya. – M., 2001. – 432 pages.
- [15] Muminov T.A., Dauletbakova M. I. Innovative technologies in educational process of medical schools. – Almaty: КазНМУ of S. D. Asfendiyarov, 2003. – 144 pages.
- [16] Naumov L.B. Optimization of training at medical institute. The programmed management for teachers of Medical Institutes. – Novosibirsk, 1978. – 419 pages.
- [17] E.V. Organization's innovators of training of marketing specialists in USA / Marketing in Russia and abroad / No. 2/2003.
- [18] Novikova T.G. The analysis of development of a portfolio on the basis of foreign experience / T.G. Novikova//Development of educational systems in the context of modernization of education. – M.: Academia; АПКИПРО, 2003.
- [19] Pinsky A.A. Recommendations about construction various models
- [20] Professional competence and mobility of pedagogical shots. Sotsialnopedagogichesky and psychological aspects (conference materials). - SPb., JOB RAO, 1994. - 193 pages.
- [21] Ten years later and looking forward: the review of transformations in the higher education of the Central and Eastern Europe. Works on the higher education, CEPES/UNESCO, Bucharest, 2000.
- [22] Formation of the society founded on knowledge: New tasks of the higher school Report of the World Bank. Whole world publishing house, 2003.
- [23] Smykovskaya E.P. Possibilities of use of credit and test systems in control and estimates of quality of the higher education//the Report at the International scientific and practical conference "Multistage university education: from effective teaching to the effective doctrine" (Minsk, on May 15-16, 2003).
- [24] T.P. Karatayeva Opyt of use of a rating assessment of knowledge at chemical faculty//the Report at the International scientific and practical conference "Multistage university education: from effective teaching to the effective doctrine" (Minsk, on May 15-16, 2003).
- [25] Credit system of training in higher education institution: structure, procedures and organization. – Almaty: MAB, 2004.
- [26] Kulekeev Zh.A. Piven G.G., Nurguzhin M.R. Quality management system of the organizations of higher education. Theory and practice. - Karaganda, 2004.
- [27] Mukhambetova S. K., Zharmenova G. S., Daribayev of S. K. Metodik of training of psychology. – Almaty, 2007.
- [28] Orazbayeva F.Sh. Theory and technique of language communication. – Almaty, 2000. – 190-191s.
- [29] Kuzekova Z. Kazakhsky language. Theory and practice of testing. – Almaty, 2009. –156 pages.
- [30] Formation of the society founded on knowledge: New tasks of the higher school Report of the World Bank. Whole world publishing house, 2003.

Жоғары оқу орны студенттерінің білімін бағалау критерийлері

Исаева.Г.Б., п.ғ.к., доцент, Н. Кылышбекова, магистр

Guka_issaeva@mail.ru

Қазақ Мемлекеттік Қыздар Педагогикалық Университеті, Алматы қ.

Тірек сөздер: бағалау, бақылау, Блум таксономиясы, кері байланыс.

Аннотация. Бұл мақалада жоғары оқу орнының студенттерінің білімін бақылау және бағалау мәселелері қарастырылған. Бағалау, бақылау критерийлері, бақылау түсініктеріне анықтама берілді. Блум таксономиясы туралы ақпарат беріліп, мысалдар келтірілді. Сонымен қатар, студенттердің білімін тиімді бағалаудың кейбір жолдары көрсетілді. Кері байланысты алу мүмкіндігін ұсынады және жұмыс жүктемесі анық белгілейді, жаттықтыру, студенттерге самоконтролировать қолдану жақсы әзірленген күту бағалау орынды белгілейді. Бағалау әдістерін де арта түседі деп хабарлау үшін ғана емес сондай-ақ ілім бері ғана әлеуеті бар және аттестаттау сыныбы мен оның. Шынында да кері байланыс ретінде тіркеді, жақында пайда бағалауды зерделеу үшін диагностикалық және тұрақты пайдалану зерттеу (Black & Wiliam Marshall Harrison Lee, 2004) қалыптастыратын. Жаттықтырушылар ретінде, ең үздік мұғалімдер тарапынан үздіксіз жалғасып жатқан студенттің тарапынан ең жоғары өнімділігін бағалау мен реттеуіштер мен мұғалімдер мен жету құралы ретінде маңыздылығын мойындайды. Бұл күндері, айтарлықтай айырмашылығы жоқ, олар да мектеп арналған стандартталған тест сыртқы көрсетеді, бір жағынан, аттестаттау және уақтылы ақпарат беру және зерттеу әдістері айқындалған персонализированная керек еді, жақсы әзірленген қамтамасыз ете алады сыныбы мен бағалау жүргізуге және оқыту.

G.B. Issayeva, cand.ped.sc., assistant professor, N. Kylyshpaeva, master

**Publication Ethics and Publication Malpractice
in the journals of the National Academy of Sciences of the Republic of Kazakhstan**

For information on Ethics in publishing and Ethical guidelines for journal publication see <http://www.elsevier.com/publishingethics> and <http://www.elsevier.com/journal-authors/ethics>.

Submission of an article to the National Academy of Sciences of the Republic of Kazakhstan implies that the described work has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see <http://www.elsevier.com/postingpolicy>), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. In particular, translations into English of papers already published in another language are not accepted.

No other forms of scientific misconduct are allowed, such as plagiarism, falsification, fraudulent data, incorrect interpretation of other works, incorrect citations, etc. The National Academy of Sciences of the Republic of Kazakhstan follows the Code of Conduct of the Committee on Publication Ethics (COPE), and follows the COPE Flowcharts for Resolving Cases of Suspected Misconduct (http://publicationethics.org/files/u2/New_Code.pdf). To verify originality, your article may be checked by the Cross Check originality detection service <http://www.elsevier.com/editors/plagdetect>.

The authors are obliged to participate in peer review process and be ready to provide corrections, clarifications, retractions and apologies when needed. All authors of a paper should have significantly contributed to the research.

The reviewers should provide objective judgments and should point out relevant published works which are not yet cited. Reviewed articles should be treated confidentially. The reviewers will be chosen in such a way that there is no conflict of interests with respect to the research, the authors and/or the research funders.

The editors have complete responsibility and authority to reject or accept a paper, and they will only accept a paper when reasonably certain. They will preserve anonymity of reviewers and promote publication of corrections, clarifications, retractions and apologies when needed. The acceptance of a paper automatically implies the copyright transfer to the National Academy of Sciences of the Republic of Kazakhstan.

The Editorial Board of the National Academy of Sciences of the Republic of Kazakhstan will monitor and safeguard publishing ethics.

Правила оформления статьи для публикации в журнале смотреть на сайте:

[www:nauka-nanrk.kz](http://www.nauka-nanrk.kz)

<http://www.physics-mathematics.kz>

Редактор *М. С. Ахметова*
Верстка на компьютере *Д. Н. Калкабековой*

Подписано в печать 10.11.2015.
Формат 60x881/8. Бумага офсетная. Печать – ризограф.
10,2 п.л. Тираж 300. Заказ 6.