

Common National Testing in the Republic of Kazakhstan

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Abstract

This paper focuses on the important component of the national system for educational assessment in the Republic of Kazakhstan -, known as Common National Testing (CNT), which combines two exams: final certification examination of students in the general secondary educational institutions and entrance examinations in institutions of higher education.

The significant characteristics of the CNT are the use of common methods for assessing the quality of work performed throughout the whole territory of Kazakhstan, and the issuing of test results on the day of testing.

Common National Testing process for the period from 2004 to 2012 helped to solve the tasks, and provided the following: external independent, objective assessment of knowledge by single measurers and technology; admission to institutions of higher education without needing to leave one's place of residence, thereby reducing the cost of long-distance travel a matter of particular importance for low-income students; the attainment of objective data used for analyzing the quality of education and governing decision-making; social justice in the distribution of educational grants.

As part of the national program for education development of the Republic of Kazakhstan for the years 2011-2020, plans are being made to modify the existing general secondary school final certification examination and the entrance exams for admission to institutions of higher education.

Key words

Common national testing, educational assessment, the quality of education

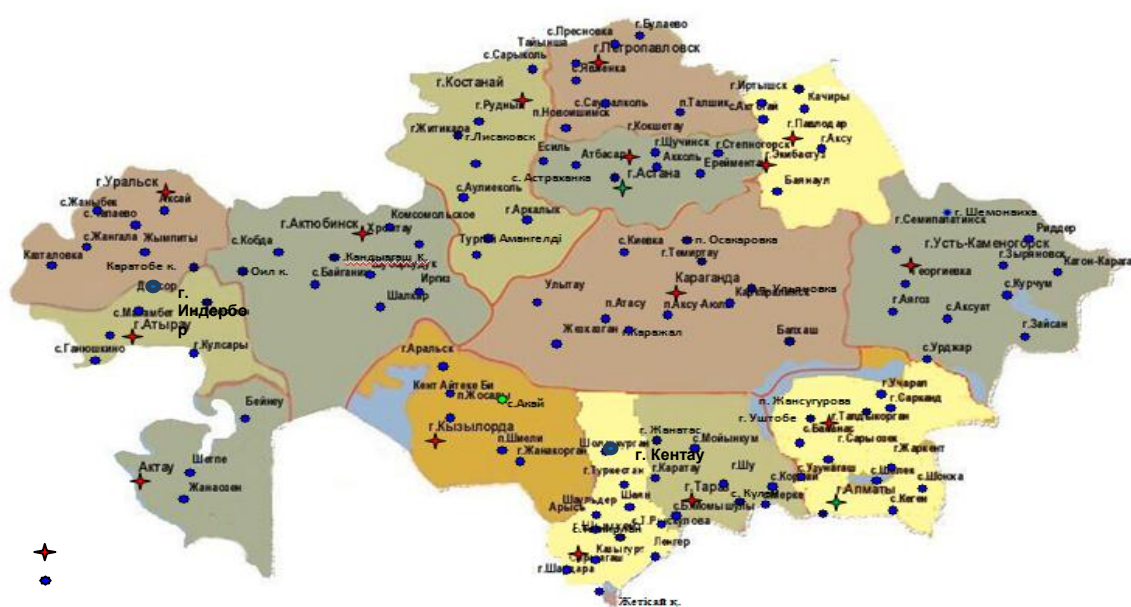
Common national testing (CNT) is one of the important components of the National System of Education Quality Assessment in the Republic of Kazakhstan. At the same time it is carried out as the final assessment of students in the institutions of general secondary education and as the entrance examinations into the institutions of education giving post-secondary or higher education. Over the whole territory of Kazakhstan the same type of tasks and common methods for assessing the quality of the work performed are used during carrying out the examination.

CNT carrying out is regulated by the following regulatory framework:

- The Law of the Republic of Kazakhstan “On Education”;
- The rules of the common national testing;
- Technology of the common national testing;
- Instruction on the organization and carrying out of the common national testing.

CNT is carried out based on the specially created points of common national testing (PCNT) affiliated to the National Testing Center (NTC) which are located at the base of institutions of secondary education and higher education institutions (Figure 1).

Points of CNT



PCNT town – 47
 PCNT region – 107

Fig. 1

When planning the creation of PCNTs, the developers of CNT were guided by the principles of creating maximum comfort and identical conditions for all students passing the test. At the same time, the remoteness of schools from PCNTs should not exceed 200 km. In an orderly way, the children living within a radius of 50 km are delivered to the point on the date of test, other living at a distance of more than 50 km are delivered in settlement of PCNT location on the day before and provided with free meals and living.

134 PCNTs were opened in 2004, and then another 23 points - in 2005. In the following years in order to optimize the work there was closing of some PCNTs and opening of others. Currently, the republic has 154 PCNTs, 107 of them are in regional centers and 47 - on the basis of higher educational institutions.

Each PCNT has two full-time staff members of NTC: branch manager and engineer who provided with the necessary equipment and materials for the organization and carrying out of testing.

CNT was first held in 2004, on the basis of the Resolution of the Government of the Republic of Kazakhstan on March 13, 2004, No 317. The main purpose of the introduction of the CNT was the improvement of education quality and efficiency of state control over the educational activities of the institutions of education.

The technology for carrying out of CNT was based on the proven technology for carrying out of the complex testing of graduates. Feature of this technology is the fact that the test results are known to graduates on the date of testing.

Testing is conducted in two languages: state (Kazakh) or Russian depending on the language of tuition. Test subjects are shown in Figure 2.

Subjects for Common National Testing

Compulsory	Elective
<ul style="list-style-type: none"> •Kazakh or Russian (language of tuition) • Mathematics • Kazakhstan History •Kazakh for schools with Russian language of tuition or Russian for schools with Kazakh language of tuition 	<ul style="list-style-type: none"> •Physics •Chemistry •Biology •Geography •World History •Literature (Kazakh, Russian) •Foreign language (English, German, French)

Fig. 2

The graduates of schools in current year take part in CNT on a voluntary basis. However, passing of CNT is required for the graduates who wish in current school year to enter in educational institutions that provide post-secondary and higher education, and for the applicants for the Certificate of General Secondary Education "Altyn Belgi", Certificate of General Secondary Education with honors, winners of national science competitions among school children and Olympiads in general education subjects of current year. Over 9 years of carrying out of CNT 1,237,861 people took part in it.

Since 2008, by making appropriate changes in the regulatory documentation for CNT, the graduates of secondary schools with the Tajik, Uzbek and Uighur languages of tuition who were tested in the state and Russian languages on request, had also been admitted.

Since the introduction till the present time CNT is held in the same format on a single technology. During analysis of test carrying out we annually make modifications in testing technology to improve testing and minimize the violations of the testing technology.

The year 2008 was a turning point in the testing procedure, amendments were made to the number of subjects, to the time devoted to testing, to the process technology for filing of application to appeal, to the procedure for determining the version of the book-questionnaire, the data cracking codes of correct answers are related to state secrets (see Table 1).

Table 1

CNT technology modifications

Technology modifications	Years	
	2004-2007	2008-2012
Number of subjects	4 subjects: Kazakh or Russian, Mathematics, Kazakhstan History and elective subject	5 subjects: Kazakh or Russian (language of tuition), Mathematics, Kazakhstan History, Kazakh for schools with Russian language of tuition or Russian for schools with Kazakh language of tuition
Number of test tasks	For each subject – 30, total - 120	For each subject – 25, total - 125
Testing time	3 hours (180 minutes)	3,5 hours (210 minutes)
Process for filing of application to appeal	The applications were filed on a special form for reading by scanner till 13:00 next day after the announcement of the results of testing	2008 - the applications are filed in the prescribed form, the applications for an appeal on the content of the test task are taken together with the examination materials after the end of the testing time. 2009-2011 - the applications are filed in the prescribed form; the applications for an appeal on the content of the test task and on technical grounds are taken till 13:00 next day after the announcement of the results of testing. 2012 – the extension of time for receipt of applications to appeal for one hour till 14:00.
Procedure for determining the version of the book-questionnaire	A version of the book-questionnaire was designated completely and has been known since the distribution of examination materials.	On the book-questionnaire it is indicated only three version digits of four, and the fourth digit is reported for 20 minutes before testing end by the telecommunications network in each PCNT.
Codes of correct answers		Since 2008 data revealing the content of tests and codes of correct answers to them used in making the CNT, are <i>state secrets</i> . The NTC has the Sector for Protection of State Secrets; all activities are carried out in accordance with the rules on the protection of state secrets.

The organization and carrying out of CNT involves a large number of organizers and performers who perform a number of specific functions (Figure 3):

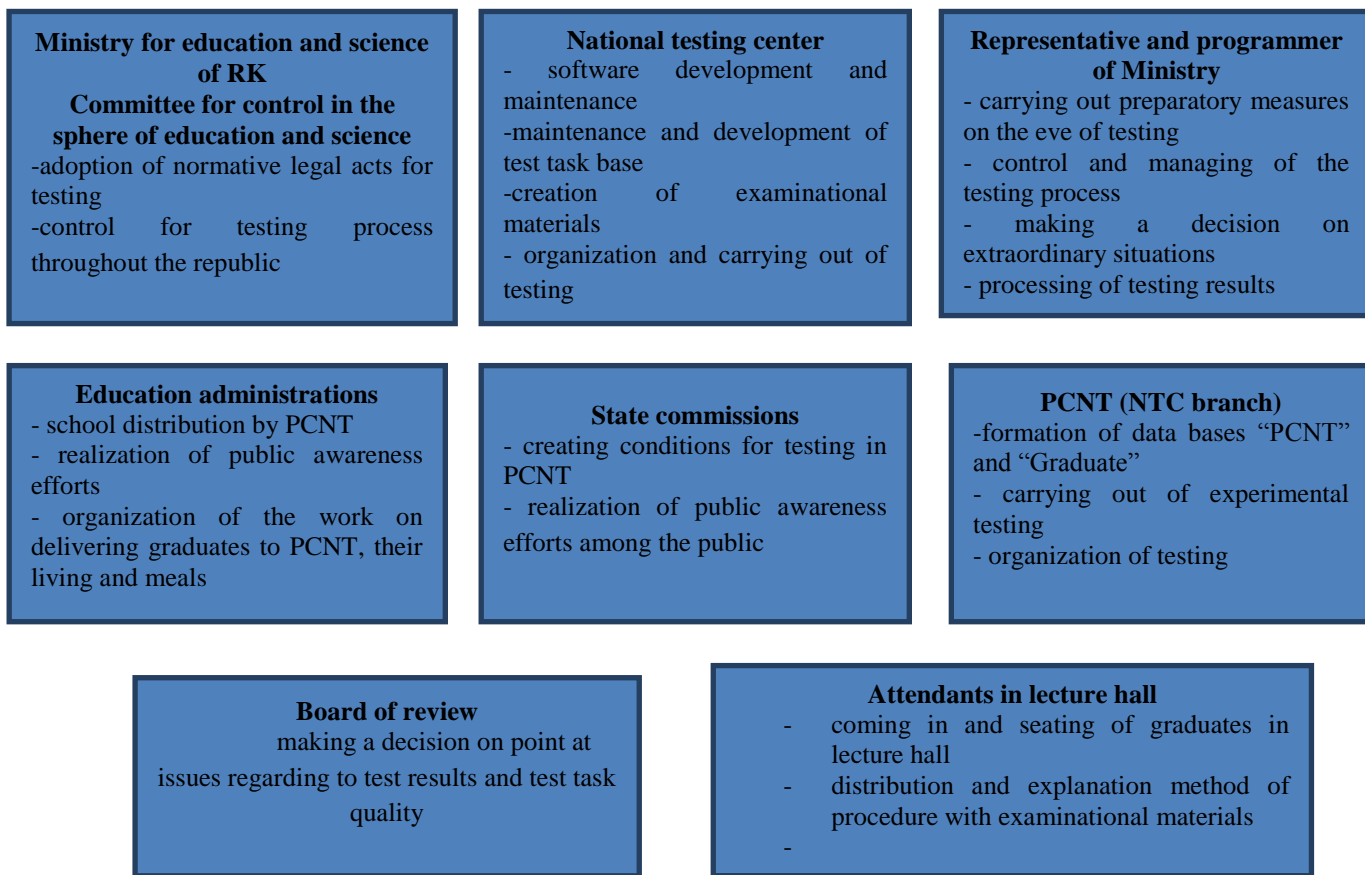


Fig. 3

The main representatives of the Ministry of Education and Science of RK and the National Testing Center in situ are the representatives of the Ministry, who include the university staff and employees of the regional (city) departments of education.

Every year about 600 representatives of the Ministry are directed to PCNT, in 2012, their number was increased by almost half. This measure was taken to reduce the level of offenses arising in the course of testing.

For quality training of representatives of the Ministry, 2 seminars are annually held: one - held in the region in the workplace, the second - in the National Testing Center before sending the representatives of the Ministry to the regions for testing. The seminars are conducted by leading members of the Centre and the Ministry of Education and Science. At the seminars they consider in detail the technology of testing and regulatory framework, the main points of each stage of preparation and testing, public awareness efforts among graduates and parents, the main functions of all organizers of the test in situ.

Common National Testing throughout the country is carried out after a single scheme (Figure 4):

Receipt of examinational materials from representative of DNSC	Coming in and seating of graduates in lecture hall (checking with metal detector)	Distribution of examinational materials (book-questionnaire, answer sheet, answer sheet copy)
Test result processing (scanning, identification, data processing). Work assessment (reception of file with right answer codes, activation)	Collection of examinational materials by attendants and transferring to the representatives of the Ministry for processing	Explanation of the rules of conduct in the lecture hall and the rules of work with examinational materials to graduates. Start of testing (9:00 on

by entering 3 passwords)		local time). Clear testing time is 3,5 hours.
Display of the test results for public view (right answer codes, exam records)	Appeal (acceptance of applications, making a decision, display of results – exam record taking into account the appeal)	Filling out and issuing of certificates of test results

Fig. 4

Due to the fact that the Common National Testing carries a double burden, combining the final assessment of students of secondary education and entrance examinations to higher educational institutions, educational institutions of technical and vocational education, every year there is increasing in the number of people interested in achieving high test results by trying different kinds of violations of the technology of testing.

These violations lead to negative attitudes of the public to the testing procedure, reduce the level of objectivity of test results.

Annually the Ministry of Education and Science of RK and the National Testing Centre conduct a set of measures to minimize the level of violations in the course of testing. In 2012, such measures were:

- increasing the number of representatives of the Ministry for the implementation of control in situ (based on 1 representative for 1 lecture hall in the regional PCNT and at least 5 - in PCNT located on university-based);
- the widespread use of metal detectors when coming in of graduates to testing;
- the use of mobile phone signal suppression devices and video surveillance cameras during the testing;
- to reduce the tension among the parents many PCNTs are provided with webcasting of testing on monitors installed in educational organizations.

Analysis of the 9-year period of CNT operation gives evidence that the introduction of CNT as a system of external evaluation of the quality of education showed a positive effect on increasing the level of secondary education, has established itself as a strategic phenomenon that provides further comprehensive improvement of education.

The results of a survey conducted by the Association of Sociologists and political scientists in April 2012 showed the following public attitudes to the Common National Testing (1,750 respondents, including 750 - high school graduates and students of 1st year, 500 - parents, 500 – educators, were polled)

- acceptable, but requiring some modification form of student assessment – 47,9%;
- unacceptable form of student assessment, which must be changed – 26,6%;
- unique and successful form of final inspection of student achievement, practiced all over the world – 21,1%;
- undecided – 3,5%.

Based on the survey data, it is possible to conclude that a public's trust in the CNT is well-established.

The procedure of Common National Testing for the period from 2004 to 2012 helped to solve the tasks, and provided:

- external independent, objective assessment of knowledge by the single meters and technology;
- admission to higher educational institutions without departure from the place of

residence, thereby reducing the cost of long-distance travel what is particularly important for the poor people;

- obtaining objective data to analyze the quality of education and make the management decisions;

- social justice in the distribution of educational grants.

The main indicators of CNT carrying out from 2004 to 2012 are presented in Annex.

In the future, with a view to implementation of the National Programme for the Development of Education of the Republic of Kazakhstan for 2011-2020, it is assumed to modify the existing test system into testing for the course of general secondary school (final examination) and entrance exams for admission to higher education institutions.

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The main indicators of CNT results for the years 2004-2012

Indicator \ Year	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of test participants, persons	179216	182383	159483	142707	116280	106805	107545	126109	117333
G.P.A. of testing results	52,32	60,36	63,29	71,12	54,92	60,77	68,76	70,42	56,05
Number of graduates who did not get over the minimum threshold level, persons	87419	24536	39478	43618	29756	15458	11593	12134	43144
Percentage ratio of those who did not get over the threshold level to the total number of test participants, %	48,78	13,45	24,75	30,56	25,59	14,47	10,78	9,62	36,77

Note: minimum threshold level by years is: 2004-2005 – 40 points, 2006 – 50 points, 2007 – 60 points, 2008-2009 – 45 points, 2010-2012 – 50 points.