Case Study on National Testing Centers

Ukraine

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Main abbreviations:
EIA -External Independent Assessment
HEI – higher educational institution
IRF – International Renaissance Foundation
MoES - Ministry of Education and Science
RCEQA – Regional Centre for Educational Quality Assessment
TTC – Testing Technologies Center
UCEQA - Ukrainian Centre for Educational Quality Assessment (National Testing Center in Ukraine)
USETI – Ukrainian Standardized External Testing Initiative.

1. The Policy Rationale for establishing the NTC

At the end of the 20th century, one of the most critical issues in obtaining education in Ukraine became the university admission issue, particularly due to certain bias and lack of objectivity in the assessment of candidate's academic achievements, outdated methods of entrance examinations in the form of oral and written subject-specific exams, and the existence of corruption schemes during the university enrollment process.

There were many interdependent problems linked to the absence of external assessment. For instance, it made it difficult to assess the educational attainments of students objectively, and this, in turn, made it difficult to compare results at local, regional and national levels. Compensatory programmes could therefore not be developed for leveling the 'life chances' of students from different regions and social groups in order to provide them with equal access to high quality education. Moreover, it was impossible to compare results at international level and to evaluate the quality of the national education. As a matter of fact, no internal examination system is fully transparent or provides objective assessment of student knowledge.

Cheating in various forms can take place at schools during the examination. Teachers often feel obliged to 'help' students. Furthermore, universities conduct entry examinations that differ significantly from one another in terms of content, structure, requirements and procedures, and there is no examination coordination between universities.

There is therefore a pressing need to create equal opportunities for all school graduates to enter higher education institutions. These factors were however necessary for the development of a coherent and comprehensive policy towards the improvement of educational quality, in particular as regards the assessment of the educational achievements of students.

These factors gave rise to public indignation and opposition against acts of corruption during admission campaigns, which eventually led to the attempts by individual universities to implement anti-corruption measures in relation to university admission: transfer to written examinations, making examination sessions open to the public, broadcasting of examination process taking place in examination rooms, implementing testing technologies in entrance examinations, etc.

The sociological survey to study young people's attitudes to secondary leaving and entrance examinations carried out shortly before the implementation of standardized external

assessment (Center for Social Monitoring, 2002) revealed that two thirds of interviewees perceived these exams as non-transparent and biased and the practice of administering such exams as such that required significant reforms. The majority of high school and university students favored the practice of using secondary leaving exam results as admission criteria. Moreover, more than half of respondents believed that external assessment would contribute to the transparency of the university admission system and enhance fair and unbiased assessment of candidates' academic achievements.

In 1999, the International Renaissance Foundation initiated a pre-project research on external testing which involved studying new entrance examination methods as anti-corruption measures. The principal aim of the research was to study the worldwide expertise and testing practices for university admission purpose, as well as to summarize the existing national practice of using tests by the leading universities in Ukraine (the National University of "Kyiv-Mohyla Academy", Ivan Franko National University of Lviv, Mechnikov Pedagogical University of Odessa, Skovoroda National Pedagogical University of Kharkiv). Later on, this critically important initiative led to the establishment of the Centre for Testing Technologies which set out systemic work to study conditions and possibilities for implementing standardized external assessment of candidates during university admission processes.

In 2002, an association agreement in relation to these matters was concluded between the International Renaissance Foundation, the Ministry of Education and Science and the Ukraine's Academy of Pedagogy. This actually launched a wide-scale educational experiment in implementation of external independent assessment based on testing technologies (further in the text – EIA). At the initial stage, various assessment models were studied, the legislative platform for carrying out EIA was prepared, and pilot-testing was conducted for various testing procedures and the tests in Ukrainian Language, Mathematics and History. The core of the experimental work was chiefly conducted at the Testing Technologies Center (TTC) and the four universities (the National University of "Kyiv-Mohyla Academy", Ivan Franko National University of Lviv, Mechnikov Pedagogical University of Odessa, Skovoroda National Pedagogical University of Kharkiv) which initiated the project.

Positive results obtained in the exploratory experiment, the support of the pedagogical community and the public response to the implementation of the standardized external assessment facilitated the introduction of this advanced technology into educational practices in Ukraine. In 2004 and 2005, the Cabinet of Ministers of Ukraine issued two regulations (Regulation #1095 "Some Issues of Implementing Standardized External Assessment and Education Quality Monitoring" of August 25, 2004, and Regulation #1312 "On Urgent Measures for Implementing Standardized External Assessment and Education Quality Monitoring" of December 31, 2005) legislating the deployment of the all-inclusive implementation of standardized external assessment in Ukraine.

A normative base for the conduct of external testing has been developed by the TTC project. The technological cycle for external testing has also been developed and piloted. This includes test preparation, the conduct of examinations and the processing of results. The physical TTC has also been created, together with four regional testing centers, based in pilot universities: in Kyiv, Lviv, Odessa and Kharkiv.

The establishment of the national system of external assessment began with the experiment on the external testing of the several training sessions were organized for groups working on the development of test items and their standardization, as well as for those carrying out the test analysis. This harnessed the expertise of external specialists from Lithuania and local experts

from the Ministry of Health Testing Centre (who had already developed a successful testing programme for fifth-year students). As a result of a series of seminars and conferences, the capacity of TTC members and regional centres increased significantly. In addition, study visits to other countries with similar testing experiences helped to build expertise.

The experiment was conducted from 2002 to 2005, with the financial and expert support of the TTC project of the International Renaissance Foundation.

TTC external testing was conducted on the principle of the voluntary participation of students, schools and universities. The confidentiality of results was guaranteed. The results of external testing could be considered by every school as a state attestation and as an entrance examination to a particular faculty by the universities that participated in the pilot. Students who did not get the chance to take a test or were not satisfied with their results could re-take the test in July, at the time of entrance to universities. In 2003, for the first time in Ukraine, two sessions of external testing of the educational achievements of school graduates were held on the basis of voluntary participation. On 22 March 2003, again for the first time in Ukraine, a technology of external testing was piloted on 1,800 students and 300 educators. Later, on 10 May 2003, external certified testing in mathematics and history was conducted in Kyiv, Lviv, Odessa and Kharkiv. A total of 3,121 students from 670 schools across Ukraine participated. The results of each student were, upon their approval, considered by their school as the final attestation of the state and, at the same time, as support for their university entrance application, if the university they wished to enter was participating in the experiment.

In 2003, the certificates of external testing were recognized by four universities. The following year, 27 higher educational institutions joined the experiment and accepted testing certificates as support documents for applications to certain departments. In 2004, 4,480 school graduates sat external examinations. In 2005, the number of graduates taking the test increased to 8,700.

In the year 2006, about 42,000 school graduates from all over Ukraine had a chance to take the external tests in Ukrainian language, mathematics or history, depending on their choice.

The testing was administered by the **Ukrainian Centre for Educational Quality Assessment** (UCEQA), established in15 March 2006 by the Cabinet of Ministers of Ukraine (Decree No. 1312, 31 December 2005) with the financial and expert support of the TTC and the International Renaissance Foundation. This Centre has nine regional subdivisions: in Vinnitsa, Dniproperovsk, Ivano-Frankivsk, Kyiv, Lviv, Odessa, Simferopol and Kharkiv. They are known as Regional centres for educational quality assessment.

According to the Decree of the Cabinet of Ministers, "the external assessment of the educational achievements of secondary school graduates serves as a final attestation of the state and as an entrance examination result for higher educational institutions". All higher educational institutions, according to the MoES Order on the 'Conditions for Enrolment to Higher Educational Institutions in Ukraine', are obliged to accept the test certificates from the external tests.

In 2006 state budget funds were first allocated on the functioning of UCEQA, partially on the loan of World Bank. The World Bank's project "Equal access to quality education" also included purchase of equipment for UCEQA and its regional centres.

Within the framework of the above-mentioned Order, an obligatory annual external assessment of educational achievements was introduced in 2007/2008 for all school graduates applying to higher education institutions. University entrants are tested in the Ukrainian language, mathematics and history, as in the previous years. Tests in science subjects, such as

physics, chemistry and biology, were also introduced in 2007. The Ukrainian experience shows that in order for external assessment to fulfill its mission of ensuring equal access to quality education, it is necessary to involve all the schools in the process. In 2007,the government thus conducted external assessment of all the school graduates in the country (around 500,000), in the Ukrainian language, mathematics and history.

Apart from development and approbation of testing technology of external assessment its implementation also required political will, since apart from the positive acceptance of EIA by major part of the society there were and still are unsatisfied, those, who had direct influence on the possibility of enlistment into universities through bribes or connections. Among such people there are university rectors and professors, other influential people who got used to solving their problems through abuse of their official position.

It should be noted, that implementation of EIA was then favored by political will of the former president Viktor Yushchenko. Political will plus prepared society and developed and approbated technological cycle during the TTC project were an impetus to the creation of UCEQA.

2. Legal & Institutional arrangements (position and relation to other EDU authorities)

The following **normative legal base has been approved as to the implementation of external assessment and for the establishment of the assessment centre**:

- The Order of the President of Ukraine No. 1013, 4 July 2005, On urgent measures to ensure the proper functioning and development of education in Ukraine, presupposed a transition period from 2006 to 2008 for entrance examinations for admission to higher educational institutions to be replaced by an external independent assessment of the educational achievements of students graduating from general secondary education. The Order stressed the need for this system to be funded and for premises to be allocated to the Ukrainian Centre for Educational Quality Assessment and its nine regional subdivisions.

- The Commission of the President of Ukraine No. 1-1/1199, 1 November 2005, defined the stages of the implementation of the external assessment: a stage of pilot implementation and system infrastructure building in 2006 and a stage of implementation at national level from 2007 to 2008.

- The Commission of the President of Ukraine No. 244, 20 March 2008 "On additional events to improve the quality of education in Ukraine."

- The Decree of the Cabinet of Ministers No. 1095, 25 August 2004 "specific issues of implementing the External Independent Assessment and monitoring of the quality of education".

- The Decree of the Cabinet of Ministers of Ukraine No. 1312, 31 December 2005, On urgent measures for the implementation of external independent assessment and for the monitoring of education quality, stated that the results from external independent assessment of the educational achievements of secondary school graduates must be considered as a final state attestation of their secondary school achievements, and as marks to be considered for university entrance, in the same way as those of a university examination. This Decree also approved the regulation on the Ukrainian Centre for Educational Quality Assessment (UCEQA), namely the statement on the Ukrainian Centre for Educational Quality Assessment.

The Center's work is regulated directly by the Decrees of the Ministry of Education and

Science of Ukraine (MoES). The abovementioned Decrees are usually changed annually, taking into account the changes, occurring in organizing procedures, security, providing results etc. For instance:

- Rules for registering persons, desiring to undergo External Independent Assessment in 2010 (Decree No. 102, 27 October 2009);
- Testing offices work regulations in 2010 (Decree No. 16, 27 January 2010)
- The regulations of determining the External Independent Assessment results of secondary school graduates (Decree No. 48, 22 April 2010).

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In the year 2006, about 44,000 school graduates from all over Ukraine had a chance to take the external tests in Ukrainian language, mathematics or history, depending on their choice. According to the Decree of the Cabinet of Ministers, "the external assessment of the educational achievements of secondary school graduates serves as a final attestation of the state and as an entrance examination result for higher educational institutions". All higher educational institutions, according to the MoES Order on the 'Conditions for Enrolment to Higher Educational Institutions in Ukraine', are obliged to accept the test certificates from the external tests. Within the framework of the above-mentioned Order, an obligatory annual external assessment of educational achievements was introduced in 2007/2008 for all school graduates applying to higher education institutions. University entrants are tested in the Ukrainian language, mathematics and history, as in the previous years. Tests in science subjects, such as physics, chemistry and biology, were also introduced in 2007. Furthermore, external tests are conducted in the form of a paper-based written test, with unified procedures and the same requirements for all students taking the test.

Since 2008 **External Independent Assessment (EIA**) is conducted on the national level and is compulsory for any graduate, entering any higher educational institution. In 2010 the results of the External Independent Assessment are valid only while entering a higher educational institution.

The Centre also conducts training tests on the costs of the testees. Training tests are voluntary. Their aim is to demonstrate the EIA procedure, adapt the students to it, and determine the level of their knowledge.

The position of the UCEQA in the national educations system. UCEQA, Ukrainian Centre for Educational Quality Assessment (further — Centre), founded by the Cabinet of Ministers of Ukraine is a state institution and is managed by the Ministry of Education and Science of Ukraine. The centre director is appointed by the Decree of the Cabinet of Ministers. UCEQA is a separate legal unit, having a status of a state-run institution. The Centre has nine regional offices (regional centers for educational quality assessment), each of which is a separate legal unit.

Responsibilities of the UCEQA. Ukrainian Centre for Educational Quality Assessment activity is aimed at development and field testing of the models of External Independent

Assessment of educational achievements of secondary school graduates having a goal to create conditions of equal access to higher education. Ukrainian Centre for Educational Quality Assessment works primarily on improving technological aspects of External Independent Assessment, filling the test items bank, spreading information on the EIA among both students and teachers.

Primary tasks of UCEQA:

- EIA preparation and conduct;
- monitoring the quality of education;
- conducting social-psychological research and attestation of teaching staff;
- registering people who pass EIA;
- preparing and granting certificates to the people who passed EIA;
- supplying information on the EIA results on request of secondary schools and higher educational institutions.

According to the regulations on the Ukrainian Centre for Educational Quality Assessment: Organizational-technological prerequisites to conducting External Independent Assessment and monitoring the quality of education include:

- developing EIA technological process;
- developing general program requirements;
- organizing, developing and standardizing of test assignments, creating the test assignment database;
- developing database and result processing software; preparing informational, methodological and instructive materials;
- specialist training for conducting testing and monitoring of the quality of education;
- developing the EIA layout.

Regional centres of educational quality assessment conduct in their regions:

- Registration of EIA test takers;
- Testing site work organization;
- Staff selection and training in their region (testing site administrators – those, who organize the work of a testing site, instructors – those, who ensure following the procedures in the testing site auditoriums, examiners – those, who check open tasks and essays);
- Trainings and seminars with teachers;
- Informational campaign for spreading information on the EIA;
- Development and approbation of test items on certain subjects.

Relationships with other educational authorities and institutions.

Regulations on the Centre state that "while performing its primary functions the centre interacts with the central and local executive organs, organs of local governance, enterprises, institutions and organizations, as well as individuals..."

The Ministry of Education and Science is an organ that governs UCEQA. It also adapts the normative basis for annual conduct of the EIA.

Regional State Administrations departments of education help in organizing local EIA conduct, namely favor the preparation of testing sites, instructor and testing site administrators selection, issue own commissions on involvement and work regulations of educational workers during the EIA.

Regional institutes of postgraduate teacher education coordinate the work of those, responsible for the EIA, control formation of testing site network in the regions, train teachers together with regional assessment centers. Each institute has a deputy director for educational quality monitoring, a department of educational quality monitoring.

Schools may request from UCEQA materials analyzing the results of their students. UCEQA also prepares annual reports on the EIA, that thoroughly highlight the peculiarities of EIA conduct, test characteristics and indicators, as well as assessment results analysis.

In the years when assessment results were counted as graduation marks in schools, the schools were responsible for delivering of students to the testing sites. In 2010 this norm was cancelled, empowering EIA results only as entrance scores to the higher educational institutions.

Regional assessment centers conduct methodological seminars for regional educational offices methodologists, prepare presentations and post them on web pages; conduct seminars for teachers on invitations of some educational institutions; participate in teacher training courses. UCEQA works on involving university professors and tutors in conducting testing in order to show the fairness and transparency of the procedures, thus improving the level of trust to the EIA of higher educational institutions.

Conducting EIA also presupposes **civil observation**, to which the Centre invites civil organizations (namely the largest of which is OPORA http://www.opora.org.ua), journalists and other caring citizens. Such observers have to register in advance to attend the testing and follow appropriate rules in the auditorium.

Conducting EIA also features civil overseeing, for which UCEQA invites civil organizations (with Opora as the biggest of them), journalists and other interested parties. These overseers are obliged to register in advance and follow certain rules in the auditorium in order to observe the testing process.

While preparing for the EIA, UCEQA has to cooperate with **other ministries and services**, namely: in delivering testing materials to the testing sites (carrier service); in keeping order at the testing sites (security service), in providing medical help at the testing sites (Ministry of Healthcare), in maintaining informational security and confidentiality (Security Service of Ukraine).

All these interactions are formalized and regulated by the respective decrees of the Ministry of Education and Science of Ukraine, commissions of the Cabinet of Ministers, agreements, and internal orders of UCEQA.

Despite having a substantial legislative basis, there is still no Law on the External Independent Assessment adopted by the Verkhovna Rada (Parliament). The changes to the Law on higher education have not also been made, stating that entry to higher educational institutions is based on the result of the external assessment. These projects were considered in the parliament, but the deputies were unable to reach a decision on them. This allows any new government to implement their own vision of EIA conduct and speculate on this issue during the election campaigns.

Secondary school leaving examination before actual implementation EIA were conducted on the school level by the teachers, thus being internal, both oral and written, so it was conducted quite subjectively. There were numerous cases when teachers helped their students so that they would show better results.

Since 2006 it was planned that EIA results would be accepted as secondary school leaving examination results and at the same time entrance exam results to higher educational institutions. This forced additional responsibilities upon schools since they had to spend more

time on preparation for the testing, as well as take responsibility for their graduates' registration for the EIA and guaranteeing their presence at the testing sites. Schools had to deliver their graduates to the testing sites, which required extra costs. Meanwhile UCEQA had to prepare maximum amount of testing sites, so that graduates did not have to travel long distances. But in some small towns were everyone was familiar with each other procedure violations were detected, as the test takers made agreements with testing site employees.

In 2010 the Ministry of Education and Science made a decision to accept EIA results only as entrance examinations to higher educational institutions, at the same time thinning the testing site network so that unacquainted people would arrive there, also forcing the responsibility of the test takers attendance on the test takers themselves and their parents.

Secondary school leaving examination is once again conducted on the school level. It is traditionally conducted in the form of an oral or written exam, but most frequently schools resort to testing in order to prepare their students for the upcoming EIA.

The relationship between internal, school based and external assessment. Internal and school based assessment has a criteria mark scale ranging from 1 to 12. Bases on the marks, received during the school year (2 semesters) and the results of the graduation exams (usually in five subjects) Certificate of secondary education marks are formed.

External Independent Assessment has a score scale from 100 to 200.

In 2010 MoES decided, that university entrance marks will be based on the EIA scores in 3 subjects, and also the average certificate of secondary education score. Furthermore scores from 1 to 12 will be converted into 100-200 scale. In our opinion the importance of EIA results has been significantly decreased this way.

Current MoES also promises that starting with the following year entrance exams at universities will also be implemented. Unfortunately, this may lead to the corruption on entering universities.

Despite still being dependant on political decisions, **the impact of the establishment of UCEQA is significant both in education and in the society in general.** Namely on:

Transparency and fairness of assessment

UCEQA is an independent institution that has nine regional offices. It operates on a state budget funds. The Centre cultivates values of transparent and fair access to higher education, and was the first to provide graduate results that could be compared in order to assess the state of education in the country. Reports on external assessment are regularly published and posted in the internet.

Assessment is conducted according to the same procedures informed in advance. Every test taker is put in the same conditions at the test sites. Each auditorium hosts 15 persons (one person at each table), 2 instructors; each test lasts the same amount of time and does not allow the use of additional materials and cellular phone. EIA takers poll results show that students consider testing procedures more fair than school or university exams.

Each test work is checked independently by two examiners. Personal student results are shown only to the students and persons with whom the students decide to share them. Appeals are also allowed. If a student appeals, he can see his scripts. The Centre publishes and distributes to the test takers all the required materials before the testing (namely syllabi, describing the rules for the test takers, EIA program, test specification, test item samples and the rules of test evaluation).

UCEQA has a very strict employment policy. Since there is no legislation on the responsibility for test content disclosure, information security depends mainly on the morality of the staff and severe following the procedures. During the whole period of the center's existence since 2006 there were no information leaks.

The centre is forced to select a great number of people to work as instructors and examiners.

Still the centre is vulnerable to political influence due to the absence of the appropriate legislation. And although the Regulations on the Centre presuppose creation of the civil council as independent board with consultative functions, this civil council has not been formed so far.

Improvement of teaching (and learning)

Annually on conducting EIA UCEQA publishes an analytical report on the testing conducted, making comparative analysis of the results according to the regions, school types, territorial features etc. Upon request of administrative organs the Centre may present profile information about the schools in certain regions. This gives an opportunity to compare one's results with the rest.

External testing is a new type of assessment in Ukraine, which is why courses were opened for the teachers based in the postgraduate teacher education institutes. Every school teacher, involved into EIA conduct as an instructor or examiner are trained accordingly in the regional centres of educational quality assessment. A lot of test compilations are being printed, but they often lack quality, which is why the centre needs to publish more (maybe in cooperation with publishing houses and authors) quality books containing tests.

The mechanism of teachers and university professors' involvement in development of assessment instruments is not yet well developed. Furthermore apart from testing other assessment types should be developed in order to avoid pure test-type education.

Since the Centre conducts only external assessment of school graduates, other forms of evaluation as well as monitoring of the quality of education of different grade students develop slowly.

Equity

Regardless of the place of residence, everyone willing can register for the external testing (that is the reason of registration sites' existence, opened throughout the country). Materials on the EIA procedures and requirements are given to any registered participant free of charge. Participation in the EIA is also free. It is planned to implement a charge for those, passing EIA for the second time. Every testing procedure is strictly regulated. There is a system of procedure control. That is why all the test takers are on equal terms during the testing. Civil control over the procedures is also planned. None of the test takers has access to assessment materials; they are highly confidential and are printed in the Center behind closed doors. Every participant's work is encoded, and the checking results are stored in the information system in NTC.

Every participant receives his own EIA results, which can be found in the informational base on entering their personal code. Every participant's work is encoded, and the checking results are stored in the information system in the Centre. Everyone willing to enter a university has the right to participate in the external assessment, regardless of the institution type they studied in or the graduation time. External assessment for the people with special needs (namely blind, deaf, physically disabled) is not yet conducted. An experiment is planned on this issue and the search for fund donors is still in progress.

3. Organizational Structure of testing Centers & Governance

Ukrainian Centre for Educational Quality Assessment governs regional offices – regional centres of educational quality assessment in Vinnytsya, Dnipropetrovsk, Donetsk, Ivano-Frankivsk, Kyiv, Lviv, Odesa, Simferopil and Kharkiv. Regional centres conduct assessment directly in their regions (there are 27 territorial-administrative units in Ukraine: 24 oblasts (regions), autonomous republic of Crimea, cities of Kyiv and Sebastopil).

Organizational Structure of UCEQA

Currently UCEQA employs 85 full-time workers. But at the beginning in 2006 only 30 persons were employed, their numbers grew with the increase in the numbers of subjects and testing participants (see table).

Administration: 8 people - director + 1st deputy + 3 deputies + 3 assistants

Accounting: - 6 persons

Departments:
- A. Nature-Mathematics subjects content department
- B. Social-Humanities subject content department
- C. Test item bank department
- D. Informational security department
- E. Data gathering and processing department
- F. Software department
- G. Organizational-Human Resources department
- H. Speed Print department
- I. Technology department
- J. Logistics department

Every department in the Centre is functionally important. Each department employs 3-6 persons. This is the current UCEQA structure, formed gradually, based on its main functions and task scales. Let us trace its formation.

At the beginning of the year 2003 the structure of the Centre of testing technologies that was the foundation of UCEQA had three main departments (apart from administration, accounting, human resources and a PR-manager):

1. Assessment materials development department.

Its functions: test item database formation, development of syllabi on different subjects, assessment program, test specifications, test development, approbation and analysis, assessment model formation, result analysis, preparation of analytical reports on each subject.

Based on this department three new were created in the UCEQA, which serve the abovementioned functions:
- A. Nature-Mathematics subjects content department
- B. Social-Humanities subject content department
- C. Test item bank department

Content departments (A+B) are responsible for test item and test paper content, accordance with the program and specification, adopted by the MoES. Test item bank department conducts procedure of test item selection and approbation, coordinates expert test item examination, conducts test item analysis.

2. IT department.

Its functions: software development (for registration, testing site seating, answer sheet processing, result processing, scaling, certificate print, etc.); database formation, storage, protection and providing sanctioned access (test item database, testing participant registration database, EIA results and certificates database, etc.; answer sheet processing, EIA results processing, EIA results statistical and psychometrical analysis; format development and testing material imposition.

In the current UCEQA the mentioned functions are served by the following departments:
A. Informational security department
B. Data gathering and processing department
C. Software department

Activity of the Informational security department is vital, since there is no legislation so far, that would determine responsibility for information disclosure from the Centre, it is important to make this leak impossible technologically.

3.   Logistics and procedures department.

Main functions of this department: development of EIA preparation and conduct processes logistics, making agreements with other structures (e.g. on testing material delivery to the testing sites and back, on producing security packs and boxes etc.), establishing technological lines for printing or processing of the testing materials. In today's UCEQA these functions are served by:
A. Speed Print department
B. Technology department
C. Logistics department

At the beginning of its functioning the Centre was unable to secretly print the test papers and ordered the print from the special state enterprise, that prints securities.

At this moment UCEQA has a technological line for printing and does it independently. The Speed Print department was created for this sole purpose.

On the management's approval departments should cooperate with each other on certain issues. Without understanding the test specifications (department 1) it is impossible to develop answer sheets (department 2), without understanding the blank sheet or registration protocol structure (department 2) it is impossible to develop auditorium procedures.

Since UCEQA exclusively conducts external university entrant assessment, it lacks other departments for different assessments, e.g. primary education. If the Ministry of Education and Science issues a resolution on conducting other research, or the Centre is issued the conduct of international comparative research, it will form appropriate departments.

Organizational Structure of regional center (RCEQA)

As mentioned before, considering that the territory of Ukraine is fairly large and the amount of test takers is great (nearly 500,000 persons a year, testing in 11 subjects), UCEQA has RCEQA that ensure EIA conduct in the regions of their operation. As a rule a Regional centre for educational quality assessment is responsible for 2-3 regions (oblasts).

Each regional centre employs 19 to 25 persons.
Administration – 4 persons: director, 1 deputy, 2 assistants;
Accounting – 2-3 persons;
Methodological department – 4-7 persons;
IT department - 4-5 persons;
Logistics/ organizational work department - 3 -4 persons;

Economic department – 2 persons.

In order to better understand the tasks, put in front of regional centres let us take a closer look at the functions of their departments.

Methodological department:

- Creating and reviewing test items ordered by UCEQA and regional boards of education;
- Conducting approbation of test items according to UCEQA decrees;
- Leading informational campaigns (public statements in schools, during parent meetings, teacher training courses);
- Preparing methodological materials for training of all categories of employees;
- Employee training;
- Holding topical seminars for regional methodological services (2 compulsory seminars: in Autumn – analyzing the previous EIA; in winter, spring – preparing for the coming EIA);
- Conducting public hearings in every regional centre, participating in the EIA;
- Teaching and certifying examiners of the Ukrainian language and literature, English (in Kyiv also German, French and Spanish);
- Preparing press-releases for journalists and publications for the media;
- Forming supplementary packages for the EIA
- Developing questionnaires

IT department

- Working with databases: of educational institutions, EIA participants, engaged educational workers;
- Maintaining EIA registration procedure (registrar training, advise services, participants database formation);
- Scanning registration cards (in 2010, there were analogues in the previous years.)
- Informational support of those responsible for EIA in administrative regions/ cities;
- Maintaining website operation, including computer practice testing;
- Developing printing materials on EIA (posters, brochures etc.);
- Printing required informational-methodological materials;
- Maintaining computer program work with the engaged employees;
- Processing questionnaire data.

Logistics/ organizational work department

- Database updating;
- Public hearings participation;
- Testing site network formation;
- Participant pegging;
- Engaged employees pegging;
- Regional responsible for EIA work coordination;
- Work coordination of structures, engaged in conducting EIA in regions (carrier service, state security service, etc.).

During the testing period, a major part of engaged workers is involved on the contract basis, namely these are software developers and people, operating at testing sites and checking sites while processing answer sheets (technological line) and financial documents.

The number of people, involved in the testing site work is determined by the testing site regulations, approved by UCEQA annually.

Thus the UCEQA decree "on approving the documents, regulating a testing site work in 2010" No. 16, 27 January 2010 presupposes approval of:

- Testing site work regulations;
- Technological cards for every category of people at the testing sites;
- Document samples, effective at testing sites – audit protocols, etc.;
- Unusual situation register;
- Typical instructor speech text;
- Commission on the UCEQA authorized person.

In most employees of UCEQA, as well as regional centres' employment contracts the it is sated that they are responsible for not disclosing or abusing the information on the content of the coming EIA, personal test taker data, any process of testing material creation, delivery and processing.

UCEQA and RCEQA employees are selected usually on competitive terms. Just as five years ago today, unfortunately there are certain staff problems in the assessment system. At the beginning of the system's formation employees were mostly selected from the system of education. Programmers are a separate category. They worked mostly in the financial system. That is why an effective advanced training of all employees was required.

Here Ukraine was helped by the Open Society Institute, International foundation "Renaissance", financing technology development and staff training. Part of the UCEQA employees took part in the program "Testing in Education" in the framework of International visits of leaders with support of US State Department; in training course "Creation and development of Assessment systems" on the basis of Educational Testing Service in Prinstone, USA. Currently UCEQA staff training is conducted in the framework of the program USID: Ukrainian Standardized External Testing Initiative (USETI).

But the problem of the absence of professional psychometrics specialists still exists. Such specialists are not trained in universities in Ukraine, as there is no one available to teach them.

That is why it is vital for the Centre to find ways of training of such specialists in order to improve analytical work.

4. Operations (exams and tests)

Types of assessment. UCEQA conducts External Independent Assessment of entrants to higher educational institutions' educational achievements. Till 2009 EIA results were also valid as school graduation exams.

Table 1. Amount of External Independent Assessment participants in 2008-2010.
(Percentage shows part of the participants, undergone EIA from the amount of registered participants)

No. з/п	Subject	2008	2009	2010

1	The Ukrainian Language and Literature	461211 (90%)	434944 (94%)	381958 (88,11 %)
2	Mathematics	226084 (85,5%)	235 305 (90,8%)	224850 (85,04%)
3	Ukrainian History	83464 (85%)	178945 (91,7%)	282698 (85,8%)
4	Biology	70581 (84%)	102072 (91,8 %)	118087 (85,85%)
5	Chemistry	24382 (81%)	28650 (83%)	25790 (78,34%)
6	Geography	24225 (78%)	50550 (84,7%)	98777 (84.61%)
7	Physics	32592 (71%)	32142 (84,1 %)	46520 (80,90%)
8	English	-	56701 (87,3%)	– 86837 (88,01%)
9	German	-	2256 (80%)	– 3194 (83,39%)
10	French	-	865 (81%)	1130 (84,20%)
11	Spanish	-	165 (74,3%)	199 (78,04%)
12	Fundaments of Law	55248 (80%)	-	-
13	Fundaments of Economics	12111 (59,6%)	-	-
14	Global History	5469 (70%)	-	-
15	Foreign Literature	2530 (53%)	-	-

And although Regulations on the Centre state that QCEQA also should conduct evaluation on different stages of school education (namely after finishing elementary school – 4th grade, after finishing primary school- 9th grade), as we;; as monitor the quality of education (on national level and international comparative research), currently it doesn't conduct any of the mentioned assessment. It is caused by the fact that there is no political decision and no state budget funds are allocated for such assessment.

Thus EIA favors fair and equal access to higher education, giving also comparative information on the graduate knowledge level nationwide. But due to the absence of other types of assessment we cannot compare the work of schools on other levels, trace the reasons of educational successes and failures, point out educational progress, evaluate the work of schools, give more information on it to the teachers.

Transparency, accessibility, fairness, justice, objectivity of the EIA is achieved by the appropriate logistics and procedures on every level of assessment preparation and conduct, result processing and informing the test takers of their achievements.

Test creation.

EIA requirements, its program are based on the program of secondary schools and the requirements of higher educational institutions to entrants. Test specification should meet the

requirements of the EIA programs, adopted by the MoES of Ukraine. The test includes items of various difficulty levels – from less to more difficult. Three types of test items were used at the external testing: multiple-choice type (closed form tasks with one correct answer, items on correspondence, tasks on sequence), short answer type of questions and open-ended type of questions.

Test items and fragments are first approbated and standardized. During the years of operation UCEQA staff and hired workers fill the bank of UCEQA test items.

The main methodological principles of test creation are:

- Test accordance to the EIA program;
- Test item validity, objectivity, reliability, accuracy.

Tests are developed by experienced school teachers, scientific staff of National Academy of pedagogical science, university professors, that undergone special training. Each test on each subject is developed by three developer groups. Each group develops two variants of the test on each subject. For instance in 2009 33 test variants and 495 pseudo variants of tests were developed. One test variant on each subject was developed by UCEQA methodologists. Instructive materials on test creation were prepared for the test developers. Every specialist involved in test creation signs the contract of confidential information non-disclosure.

Test content validity is achieved by the procedure of its creation, scientific-methodological reviewing, international expert conclusions, and approbation. On reviewing and modifying of the tests they undergo literary edition. All tests are compiled in Ukrainian (state language). For graduates of educational institutions where teaching is conducted in the language of national minorities, UCEQA provides test translation into Russian, Hungarian, Romanian and Moldavian.

During test creation process much attention is paid to the preparation of inseparable part of any test – answer sheets – a special form of test result registering. Constructive answer sheet design ensures comfort and speed of a test taker's work, shortens non-productive wastes of time on the sheet's filling.

Test papers print is done in UCEQA with all the necessary conditions that make test content disclosure impossible. Thanks to the usage of modern printing and packing equipment the process of test paper print and formation of test material auditorium packs (15 items) is automated to the maximum. In 2009 for EIA conduct 1484470 test papers were printed, 83948 test material auditorium packages were prepared (test papers, answer sheets, bar-codes and packages for the return of answer sheets to the processing centres).

Works on test material multiplication were done during 95 working days in two shifts (178 shifts from 6 am to 10 pm). Due to the effective organization of the technological process of modern technical means of control implementation no fact of information leak during test paper production and packing took place.

Preparing employees, engaged in EIA.

Teaching test site administrators, their assistants, senior instructors and examiners was conducted by specialists from regional centres of educational quality assessment together with scientific-educational staff of regional (city) institutes of continuous teacher education with the aid of district boards of education and science.

E.G. to organize and conduct EIA in 2010 257.2 thousand educational workers were engaged. 14523 persons who were engaged in the EIA for the first time underwent various forms of training.

Educational workers from secondary schools, technical schools and universities were engaged as examiners in the Ukrainian language and literature and also English, who checked open form tasks. UCEQA conducted instructive meetings for senior examiners. Special attention was paid to their acquiring practical skills of open form task assessment criteria. In 2010 598 examiners of Ukrainian and 254 of English were trained.

After training engaged employees acquire corresponding certificates on UCEQA qualification. Educational workers that acquired UCEQA certificates in the previous years attend instructional briefings. In 2010 briefings were attended by 71303 persons.

Forming testing site network. EIA testing sites are formed based on secondary schools, technical schools or universities. Requirements for testing site formation are stated in the MoES Decree. Territory of each region is divided into districts that include areas, and also cities of regional significance, where more than 720 university entrants live. In each district a base town is selected, where most testing sites are formed. One testing site accepts graduates from two or more areas or cities of regional significance. Each testing site hosted no more than 60% of students from single region. It is important to make sure that students from same schools are seated in different auditoriums of a site. The testing site, where each specific student attends is defined with the help of a computer program as close to the place of his residence, noted during registration as possible.

E.g. in 2010 testing sites for 98,5% students were located no further than 50 kilometers away from the place of their residence. Overall 5685 testing sites were formed, which operated based in 1179 educational institutions.

Testing material delivery is done by the state enterprise of special connection. In 2010 UCEQA sent 8058 containers with testing materials and 5963 administrative packages weighing in total over 90 tons. RCEQA sent 1179 packages with supplementary materials. All UCEQA and RCEQA materials reached their destinations on time and in full amount. No confidentiality violations during the transporting stage were detected.

EIA conduct in the testing sites. EIA participants' personal division is conducted automatically through the specialized UCEQA software by means of alternate determination of a testing session, testing site, testing auditorium and workplace in it. Division is conducted according to the personal data, provided by the test taker during registration taking into account that in every session correlation of the number of test takers by age, place of residence, educational institution type and graduation date, sex must be the same. This gives the opportunity to form representative groups of students for each session, minimize the cases of tests being taken by classmates, relatives, etc. During a single session, prevent other facts that have negative impact on the equality of test taking conditions.

Information on the EIA time and location on a specific subject is located on the test taker personal web page, created on UCEQA site, and also in invitations-passes, where short recommendations on the importance of timed route to the testing site selection and travel time can be found. These invitations are sent to the students by mail on the addresses, stated during registration. Information on the testing site location and most convenient travel routes is also located on the web sites of regional centres for educational quality assessment.

The main structural unit of a testing site work organization is a testing auditorium. Maximum auditorium capacity is 15 persons. Furthermore, whenever possible, combined

auditoriums were created in the testing sites, hosting up to 45 persons. Large auditoriums had two or three sectors, each hosting 15 persons. For every 15 test takers two trained teachers-instructors were present, who weren't teaching any of the present students, as well as were no relatives to any of the test takers.

Civil observation campaign on EIA conduct was organized by the Committee of Voters of Ukraine, civil network "Opora" with the aid of International Renaissance foundation and USETI. Representatives from these organizations observed every stage of EIA conduct. According to UCEQA and RCEQA data in 2010 over 5,000 civil observers were present in testing, checking and result processing sites, on the meetings of regulation and appeals committees.

Accreditation of media representatives, who highlighted the process of EIA conduct, took place in Ukrainian and regional centres of educational quality assessment. Over 200 media representatives of central and regional media observed the procedure of EIA conduct in testing sites. Following civil observation press-conferences were held and generalized materials were prepared.

Result processing and presenting. Answer sheets, filled by test takers were coded. Coding was done by sticking type EAN13 bar codes on the answer sheets. Each bar code represented the last name of an EIA participant.

The aim of the coding – provide confidentiality of the testing results, that creates equal conditions for all students. It is done to prevent answer frauds on every stage of testing: during answer sheet processing, result determining and presenting. That is exactly why the system of three sided control was implemented. Its essence lies in the fact that all test taker answers were scanned before and after it. Thus the original answers are located in the processing site, its copies before and after checking are in the database.

Answer sheet copies are given on request to the test takers in paper or electronic forms.

The process of a test taker's work identification sequence is the following: filled answer sheets are sent to nine processing centres. Processing centre location is unknown to the test takers, their parents, relatives or acquaintances. This provides the opportunity to prevent the attempts of finding influence schemes on people, who were involved in answer sheet processing. In the processing centres answer sheets are scanned and verified.

After processing original answer sheets are sent for checking. Blank A sheets (multiple choice) is checked in the centres with "Abbyy Form Reader" software, and blank B sheets (with open answers) – in checking sites by examiners. No less than two examiners check every work. Examiners and checking site technological line workers do not know the names of the persons, whose works they check, as well as the names and locations of testing sites, where these works were written.

After checking blank sheets B were scanned for the second time and were entered into the database. Afterwards with the help of the program "SPRUT", developed in UCEQA, results are determined and test takers, who wrote specific works, are identified.

Test result disclosure. Test items type A and B answers as well as mechanisms of open task assessment are disclosed at UCEQA website three days after EIA conduct. Type C (essay) correct answer examples and criteria of their assessment are also disclosed several days after the EIA.

EIA certificate information cards that students hand out at admissions contain information on the EIA results in a rating scale [100-200 points] and the amount of points achieved in each subject.

Rating scale formation is done taking into account that it approximates the reference scale with the average result value in every subject; is standardized; rated. Students who got more points on a certain subject will receive higher marks that those, who got less points according to this scale. Students, who got the same amount of points in the same subject, receive the same marks according to this scale.

Conversion tables of test points into marks with rating scale [100-200 points] in every subject are located on the official website.

Results, acquired by the students are disclosed in individual and comparative forms.

Individual results are presented on students' personal pages, located on UCEQA website. Only students, who acquire PIN-codes on EIA registration day, can visit those pages. Testing results on each subject appear on personal pages right after checking. .

Each student can print the information card from his personal page using standard software. The card is then handed out at the admission at universities. Validity of the information, presented in the card is checked by admission employees through the system "Konkurs" (Competition) that interacts with UCEQA certificate database. Information cards are double checked by UCEQA employees in the process of checking decrees on student enlistment to universities.

Comparative EIA results are presented in tables with statistics data. These tables are created through statistical characteristics analysis and comparison sorted by administrative-territorial units. A separate section describes test psychometric data.

EIA result disclosure (except for personal results) is done in the form of a "Report on the EIA of educational achievements results of secondary school graduates who desire to become university students", presented in the internet (USEQA website), "Testing and Monitoring in Education" magazine special edition, and an editorial, that is sent to major libraries in Ukraine, Administration of the President of Ukraine, the Cabinet of Ministers of Ukraine, the Ministry of Education and Science of Ukraine, Regional State Administrations.

Special role in preventing corruption belongs to **securing information confidentiality.** UCEQA information list, that is considered confidential is defined by the MoES Decree. Such To such information belong: test content and test paper production procedure; test item developers and compilers personal data; test taker personal data.

In order to provide confidentiality of test taker personal information an electronic database of persons, willing to enter universities, has been created in the informational-communicative system of UCEQA. This base was compiled through internet during student registration. Personal data is processed only by the UCEQA specialists through forms that identify the person as a EIA test taker and view personalized testing results.

Access to personal UCEQA web page, where information on a test taker is located is granted to the owner of personal data or, with their permission to the third parties.

Personal data confidentiality of test item developers and experts is stated in the outsourcing work contracts that are compiled in accordance with the normative informational protection requirements.

A freelance informational protection service was created in UCEQA with one of its primary tasks to provide complex protection of confidential information in automated systems.

To prevent non-sanctioned access to test contents automated systems are equipped with licensed software tool that acquired expert opinion of the State Service for Special Communications and Information Protection of Ukraine.

Test items are considered service information that shouldn't be disclosed (Art. 37 of the Law of Ukraine "On Information"). In case of need test items are sent only through secure or valuable mailings.

In accordance with the Regulations on subject tests development procedure, test items that acquired three or more approving expert opinions are sent to the closed section of the test item bank, i.e. acquire the status of confidential information.

A great number of developed test variants, strict control over confidential information transition – all this contributes to securing the secrecy of contents of test variants, selected for printing.

High level of test paper replication and packaging automation, constant control over these processes by the secured units, including the use of video observation, exclude the possibility of non-sanctioned access to test contents. Accounting of prepared produce and technological wastes is conducted with printing equipment counters. Termination of the flawed sheets is done in the printing room.

Sites of informational activity, where confidential information is processed have restricted access, security alarm systems, and video observation. Physical protection is provided by squads of State Security Service of the Ministry of Internal Affairs of Ukraine.

Appeals consideration on violations of EIA conduct procedure, EIA results is done by regulation commissions of RCEQA and UCEQA meeting the requirements, set by the Regulations on the EIA conduct, Regulations on the regulation commission of RCEQA, Regulations on the appeals commission of UCEQA, all approved by the MoES Decree.

For instance in 2010 RCEQA regulation commissions considered 24 appeals on violations of EIA conduct procedure during the main sessions and 7010 appeals on the EIA results, which constitute 0,55 % of general number of test takings.

In order to prepare materials for appeals commission consideration the work of the following units was organized: group of UCEQA specialists who double checked the EIA results during automated answer sheet processing and personalizing (technical expert assessment); five specialist groups of educational and scientific workers who double checked open test items in Ukrainian language and literature, English, German, French and Spanish (specialist expert assessment).

Information on the appeals consideration consequences is located on the test takers' personal web pages. Each of the appealers was also sent an excerpt from the appeals commission decision, test taker's EIA card and primary copies of answer sheets.

EIA material and information accessibility. As mentioned above every EIA participant receives printed informational materials during registration. Moreover, information concerning EIA can be found on the UCEQA webpage www.testportal.gov.ua . Namely: informational materials, program requirements, test samples, normative basis, instructions, analytical reports on EIA conduct as well as various social and scientific research, answers to the frequently asked questions, etc. With support of the International Renaissance Foundation a specialized magazine "Testing and Monitoring in Education" was established, that also publishes all the required EIA materials (www.timo.com.ua). Annual analytical reports on EIA are also published in a separate

editorial and are sent to the main libraries of the country, to state managerial organs and also to the regional state administrations.

A broad informational campaign is conducted annually to inform all citizens on the peculiarities of EIA organization and conduct in the following year. Informational- explanatory work is done by employees of MoES, UCEQA and RCEQA, Education Boards of Regional, Kyiv and Sebastopol State Administrations, Regional (City) Institutes of continuous teacher education and also Ukrainian Standardized External Testing Initiative (USETI).

Everyone willing to take part in the testing receives an informational bulletin during registration, where he may find information on the coming EIA, namely: list of subjects, testing schedule, external assessment participant rights and responsibilities, information on testing result determination, etc.

In order to inform the general public UCEQA and RCEQA organize public meetings with students of 11th grade, their parents, secondary schools graduates of the previous years, technical schools and university students of I-II accreditation levels, education community and media representatives in every region of Ukraine (e.g. in 2010 they were attended by 169800 persons).

To provide informational-advise aid for the public telephone hotlines have been established in UCEQA and 9 RCEQAs. "Q&A" and "Forum" pages operate on the UCEQA and RCEQA official websites, where employees of these institutions answer the questions online regarding EIA organizing and conduct. During 2010 campaign UCEQA website was visited by 2.5 million users.

To timely inform the public of the EIA conduct preparation process there is a section on UCEQA website called "Event Chronicles", where one can daily find new announcements on main events that happen in the process of preparation for EIA. Press and web conferences are held with participation of UCEQA and RCEQA directors (140 such conferences were held in 2010).

Articles of topical issues of EIA preparation are published in the media (over 1.5 thousand published in 2010).

With the aid of USETI program 2 video and audio commercials were launched on national TV and radio stations featuring "EIA participants' registration". To inform testing participants on their actions in case of procedure violations a commercial "If you are indifferent you may lose your chance", that was on air on national TV channels.

EIA influence on school teaching. EIA takes place in May-June, which is why, as teachers note, starting with April most graduates pay major attention to studying the subjects they are to pass at EIA. According to the teachers' observation it is difficult to prepare for the testing during studies due to the lack of time. That is why most test takers study additionally by themselves or with a tutor. We can assume that the scale of tutoring has increased with the implementation of EIA, although we lack statistics data to be certain. Parents understand that they no longer can secure their child's entry through bribes that is why they force their children to study, especially with a private tutor.

The number of various materials with test samples that teachers use at their lessons grows each year. Also concerns grow, that students put most efforts into remembering, not understanding. That is why other forms of assessment, more oral questioning and student portfolio development are planned to be introduced in schools.

Analytical EIA reports mention the parts of educational programs where students showed poor results. Thus teachers may see which sections of the program should be paid more attention to.

Usage of EIA data for research. On special request to UCEQA research institutions may acquire permission to analyze EIA data. An example of such research is a recent «Study of the quality of the assessment-based university admission system in Ukraine based on the standardized external assessment of secondary school graduates».

The research was aimed at:

▪ Develop methodology and techniques for assessing and monitoring quantitative indices expressing quality of the university admission system based on standardized external assessment using the analysis of worldwide practice and Ukraine's own educational and cultural traditions.

▪ Examine quantitative indices indicating quality of the university admission system based on standardized external assessment.

The research was carried out by the International Public Organization "The Center for Testing Technologies and Education Quality Monitoring" supported by the International Renaissance Foundation grant in the period from October 2009 to March 2010. To complete different stages and parts of the project, experts were engaged from the following organizations and agencies:

1. National Academy of Pedagogy of Ukraine (NAP)
2. Ukrainian Center for Educational Quality Assessment (UCEQA)
3. Editorial Board of *Testing and Monitoring in Education* Newsletter (TIMO)
4. The Institute for Sociology at Karazin National University of Kharkiv
5. Ukrainian Standardized External Testing Initiative (USETI)
6. OPORA Public Organization

The completed research on the quality of the assessment-based university admission system in Ukraine gives the opportunity to draw general conclusions about the perception of this innovative university enrollment procedure by interested parties and to evaluate the effectiveness of its implementation with regard to its objectivity, fairness and ensuring equal access to higher education. Some of the research conclusions:

1. The society gradually establishes positive perception of the standardized external assessment, builds trust to assessment results and forms the belief that the assessment-based selection of students has become more transparent and unbiased. The survey findings show that more than half of secondary school and university students, together with secondary school educators trust the standardized external assessment system. This proportion for university educators is somewhat lower (35%), though 42% of university professors have trust to some elements of the assessment while distrusting others; only 7% of interviewed in this subgroup expressed distrust to the external assessment, which in comparison with the situation found in 2007 confirms the tendency towards more positive perception of SEA by university professors (the level of trust has grown by 24% while the level of distrust has decreased by 46%). What is also inspiring is the fact that the level of positive perception of the assessment has risen in the category of those who are in charge of running secondary and higher education institutions.

2. Among secondary school educators, about two thirds of the interviewed persons believe that external assessment is a more efficient university admission tool in comparison with entrance examinations. This opinion is shared by more than half of the interviewed university students and almost half (44%) of the interviewed secondary school students. However, only a third of university faculty considers external assessment a more efficient admission instrument than entrance examinations. Generally, it is important to note that each interviewed subgroup has

shown certain proportion of those who favor traditional exams, however only in the university faculty subgroup this proportion is higher than the proportion of those who support standardized external assessment.

3. Interesting findings were obtained in relation to educators' opinion about the use of other criteria in university admission process. About two thirds (67%) of secondary school educators believe that candidates' high school grade point average should be considered in making university enrollment decisions. University educators also emphasize the importance of this criterion (42%), though they note more often the importance of other factors like participation in various competitions and Olympiads, having graduated a specialized institution, and performance on the special academic ability test.

4. Two thirds of university students indicated the test-based assessment to be fair, and only 10% believe that the obtained score inadequately expresses their ability; further 20% believe the assessment to be 'somewhat fair'. However, only a third of university students who took entrance tests indicated that the tests fully corresponded to the scope and level of their subject competence; almost half of the interviewed students believed the tests to be difficult.

5. To sum up, the survey of educators, secondary school students and university students as to their perception of standardized external assessment on the whole revealed a positive attitude to using external testing as a university admission procedure, confirmed the effectiveness of the proposed external assessment model, and showed a steady tendency for the growth of trust to EIA results and their acceptance as fair.

6. The statistical analysis of the assessment-based university admission system fairness (equal access to higher education for different social subgroups of applicants) has revealed that the assessment-based university admission system on the whole ensures the equality of different subgroups in gaining higher education. At the same time, it is important to note that the existing system requires improvements in the treatment of candidates who graduated secondary schools in years preceding the external assessment implementation since their enrollment rate does not meet the fairness criterion. With this purpose, it is proposed to implement, along with subject tests, the assessment of candidates' ability to study at the university level, or the so-called General Learning Competence Test (GLCT).

5. Financing

EIA system is financed by the state budget costs. Test takers are not charged for the participation in EIA.

But the costs of state budget are very limited, which is why UCEQA activity is partially financed by charity organizations. E.g. costs for informational booklets, posters, TV and radio commercials, and specialist training were given by USID through Ukrainian Standardized External Testing Initiative (USETI); civil observation program support – International Renaissance Foundation (IRF). Also a small bit of income comes from the conduct of trial testing, for which the participants pay.

Financing expenditures on conducting EIA is achieved through a separate budget program "Conduct of EIA and educational quality monitoring by the UCEQA and its regional divisions".

UCEQA has a separate line in the MoES budget.

Annual budget of UCEQA and its 9 regional divisions in 2010 constitutes **97. 022 UAH million (12.128 USD million**, counting **1 USD = 8 UAH**), while overall MoES budget is almost 20 UAH billion, and overall education expenditures in the state constitute 76.8 UAH billion.

Budget of a single RCEQA constitutes 6.3 UAH million.

Actual expenses for EIA conduct in 2010 (except for costs, allocated for staff salaries, municipal services, UCEQA and RCEQA ongoing maintenance) constitute 54.8 UAH million (6.85 USD million), namely:

Expenditures on invitation production – 113.2 UAH thousand,

Auditorium packages with test papers and answer sheets production and packing – 1,751.5 UAH thousand,

Engaged employees salary– 40,586.9 UAH thousand,

Informational support– 366 UAH thousand

Delivery of materials to testing sites and of invitations to the test takers – 6,246.7 UAH thousand,

Testing site and result processing and checking sites security, – 3,456.3 UAH thousand,

Printing-packing complex equipment maintenance and consumable costs – 2,255.1 UAH thousand.

Average actual costs per testing in 2010 constitute **39 UAH (4.88 USD).** In 2009 – 52.63 UAH. Expenditure cuts for EIA preparation and conduct were achieved by the following actions:

- Test site network shortening through implementing multi session on separate subjects;

- Decrease in the employee salary extra charge;

- Involving smaller amount of examiners for open task checking through decreasing the number of subjects with open tasks;

- Implementing the procedure of certificate acquisition with testing results without expenditures on the document's production and delivery to the test takers.

It is planned to charge EIA participants for the second attempt at the testing from next year on.

6. Lessons learnt

EIA implementation is considered by the estimations of both citizens and specialists to be the most successful reform in education, conducted in the recent years.

EIA implementation became an effective mechanism of preventing corruption on entering the universities. We also acquired information on the real condition of graduate educational achievements. EIA is also a tool of raising educational standards in schools.

Furthermore, according to experts, the most vulnerable aspects of the Ukrainian standardized external assessment are such components of the whole system as the legislative and regulatory institutionalizing of testing, quality of the subject tests, and also organizational and procedural issues of test administration and the logistics involved.

First and foremost, legislative foundation needs to be secured and operationalized for the standardized external assessment to be accepted as part of existing educational practices. The laws of Ukraine on education adopted prior to the external assessment implementation do not contain provisions on this educational phenomenon and do not regulate many of the legal relationships with regard to various procedures of standardized external assessment administration. The prepared amendments to relevant legislation have not been adopted by the Verkhovna Rada of Ukraine for a long time; some of these amendments are also rejected for technical reasons.

Absence of appropriate legislation makes EIA vulnerable to political decisions of power that is changing. Politicians still often use it as a subject for political discussion. EIA result usage remains an important issue. E.g. current MoES management proposes apart from EIA reintroduction of entrance examinations at universities starting next year. Thus students will enter following the results of EIA, secondary education certificate and university exams. So the value of EIA is thus neglected and conditions for the return of corruption on entering the universities may be reestablished.

No UCEQA supervisory council has been created so far, although it has been mentioned in the Regulations on UCEQA. It also increases the influence of MoES on any changes, connected with EIA conduct and the usage of its results.

Every year a wide-scale discussion is brought about on such issues as granting privileges to certain categories of applicants, terms of enrollment to the correspondence learning programs for secondary school graduates of previous graduation years and professionally-oriented candidates who graduated a higher educational establishment of level I accreditation, along with other issues. These problems become particularly urgent shortly before and after university enrollment since general principles of standardized external assessment (fairness, objectivity, and equal access) come into clash with university enrollment practices.

There is also a difference in performance results shown by graduates who completed their secondary education in town and village schools as well as students who completed different programs of study (for example, students of specialized schools, lyceums and gymnasia, graduates who completed secondary education in different years, students of professional technical schools, etc.). In particular, the Statistical Report on Standardized External Assessment of 2008 shows that qualitative indices of subject tests performance results for secondary school graduates from urban and rural areas differ considerably in the high-scoring segment of the scale. For example, the proportion of test-takers who gained 185 points and above is several times lower for students from rural areas than for those from urban schools.

In this case, the system of university selection criteria does not cover all characteristics of a person which determine his/her ability to gain higher education. Apart from the level of students' academic achievements, the system should evaluate other qualities, in particular the general learning competence which defines the capacity for successful studying, motivation to continue education, etc.

Orientation of the standardized external assessment exclusively on particular subjects does not take into account the contemporary competence paradigm in education, forcing students to concentrate only on the subjects they are going to take for standardized external assessment, thus putting limitations on the general educational orientation of secondary education.

That is why we face challenges of improving test item content on one hand, and on the other – development of a new test, aimed at checking abilities of General Learning Competence Test (GLCT). Implementing this very test should equalize the chances of graduates of this and previous years, both in cities and villages.

EIA should be developed on other stages of school education. It is not provided yet. The Centre, having its technological bas could successfully conduct monitoring research of educational quality. But no costs are allocated for this, firstly due to the lack of political will for conduct of such research. Unfortunately, the system of external assessment in Ukraine is too concentrated on entrance to higher educational institutions and thus is not used for monitoring and improving the quality of the system of secondary education.

The history of EIA implementation demonstrates that it should be implemented gradually, starting with experiments, voluntary for students and educational institutions. Meanwhile society forms positive attitude towards such an assessment system. Appropriate sociological research should be conducted, that would demonstrate the people's attitude towards the existing system of examinations and their striving for change. The experiment should be conducted in close cooperation with the Ministry of Education and Science, working out the appropriate normative basis.

And the most important factor is the presence of political will to introduce transparent assessment and conquering corruption in education. The reform develops successfully when there is political will, a developed effective technological cycle of external assessment, is a need for change in the society, is trained staff, when schools and universities are interested.

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