

THE IMPACT OF THE ASSESSMENT IN THE ADMISSION TO THE MASTER DEGREE ON THE DEVELOPMENT OF CREATIVITY IN HIGHER EDUCATION

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【Abstract】 The State Students Admission Commission of the Azerbaijan Republic undertook an in-depth study of the five-year examination experience for admission to in-country university Master Degree programs. This writing focuses on the history of development and the stages of these examinations, as well as their specifications. Particular attention is given the correlation of assessment results to students' subsequent performance in higher education, including how the assessment process facilitates, monitors and reports the degree to which students become creative thinkers and problem solvers. The study also appraises current assessment methods and techniques for Master's Degree admission through statistical analysis of admission exams. Further, proposals are made on the positive impact of admission exams on students' subsequent development in higher education, the appropriateness of the use of this assessment methods in the future for final graduate exams, and in the process of accreditation of higher educational institutions.

It is known that many countries have higher education with the structure of levels «the bachelor – the master – the doctor».

Since 1997 in Azerbaijan the two-level model of higher education has been applied – the bachelor and the master levels.

Admission to bachelor's degree has been conducted by the State Students Admission Commission (SSAC) by way of centralised testing since 1992. But admission to the master's degree from 1997 to 2004 was held by universities and this admission had following shortcomings:

- Universities applied different forms and contents of the admission examinations, different rules of admission;
- The choice of candidates was limited by only one speciality of a university;
- Subjective factors took place in the assessment of the candidates' answers;
- There were no uniform state educational standards for all specialities; each university had its own curriculum and standard for the same speciality which strongly differed from each other. Therefore graduates of one university practically had no possibility to continue their study in a master's course of another university.

According to "Regulations about the State Students Admission Commission" approved by the Decree of the President of the Azerbaijan Republic No. 219 dated April 6th, 2005, SSAC has been conducting centralised admission examinations to master's degree of all higher educational institutions of our country, irrespective of their organizational-legal status and forms of ownership for five years since 2005.

Admission is regulated by "Admission Rules for master's degree of higher educational institutions of the Azerbaijan Republic" developed and confirmed by SSAC for every academic year. According to the rules, the persons having graduated the higher vocational training in the bachelor's degree and having the diploma about graduating from higher schools possess the right to be admitted to the master's degree of higher schools.

Every academic year for the purpose of preparation for examinations the analysis of specialities on which admission to master's degree is expected is carried out and comparison of their curricula is held. On the basis of this analysis with participation of the faculty of corresponding specialised chairs of higher schools of the republic these specialities are grouped in the form of programs of entrance examinations, the contents of these programs

and the list of literature are defined. Possibility of a choice of a speciality of master's course depending on a speciality at the bachelor's level is represented in the form of the table for all specialities trained by universities of the Azerbaijan Republic.

**THE TABLE OF THE CHOICE OF THE SPECIALITY
ON THE MASTER'S LEVEL**

The ciphers and the names of specialities on bachelor's level	The ciphers and the names of corresponding directions (specialisations) on master's level	The numbers of the master programs
TE 010100 Mathematics TE 100100 Applied mathematics TE 100200 Informatics M 010200 Mathematics and informatics	TEM 010000 Mathematics TEM 010001 Mathematical analysis TEM 010002 Functional analysis TEM 010003 Differential equations TEM 010004 Geometry TEM 010005 Algebra and topology TEM 010006 Computing mathematics TEM 010007 Teaching, methodology and methods of mathematics TEM 010020 Informatics TEM 010024 Mathematical theory of optimal processes	36 page 22
	TEM 010000 Mathematics TEM 010008 Probability theory and mathematical statistics TEM 010010 Researches of operations and system analysis TEM 010011 Mathematical cybernetics TEM 010012 System programming TEM 010013 Optimization and optimal management TEM 010014 Computing diagnostics TEM 010015 Mathematical modelling TEM 010016 Mathematical and informational support of economic activities TEM 010017 Software of computer networks TEM 010018 Mathematical physics TEM 010019 Matematico - economic methods of optimal management TEM 010020 Informatics TEM 010022 Discrete systems TEM 010023 Analysis of difficult systems by means of probabilistic and statistical methods	37 page 28
	TM 180000 Informatics and computer engineering TM 180021 Computer sciences TM 180022 Management in informational technology	16 page 12
	MM 010000 Education MM 010004 Pedagogics and methods of primary education MM 010006 Theory and history of pedagogics	35 page 19

In the special issue "Master" of the "Abiturient" (Applicant) journal Admission Rules, the Table of choice of a speciality and the programs defining the contents of admission

examination are published. These materials are also placed in the electronic form in the internet site of the SSAC www.tqdk.gov.az.

On the basis of the programs defining the contents of admission examination, test items are developed and their expertise is carried out. The employees of the SSAC organise the work of the university faculty connected with development of assessment materials for admission to different specialities, and also functioning of workshops and development and designing of test items on foreign languages, on logical thinking and computer science with participation of leading experts from higher schools.

The reception of documents for this level has been conducted via the Internet for already three years. And this year bachelors, using the identification card (its number and PIN-code) and "Payment card of the SSAC" (number of the electronic application and the cipher), entered the corresponding Internet page of the SSAC (www.tqdk.gov.az/erizemagistr) and filled in the form "Electronic application of the bachelor". After that bachelors presented required documents to the Commissions for reception of documents organised in higher educational institutions of the republic where admission to master's degree is conducted, and also in the SSAC and confirmed "The Electronic application of the bachelor". Graduates of higher schools of this year confirmed the electronic applications in the commissions organised directly in those higher schools in which they were trained, and graduates of previous years and the graduates of the current year who have graduated the higher schools where reception commissions have not been organised, in the commissions, organised in one of higher schools. The persons who have got education abroad, confirmed the statements in the commission organised in the SSAC.

From 2006 to 2008 the logical thinking of the bachelor, level of knowledge on the chosen speciality and a foreign language were assessed at the one-stage entrance examination by the testing method. 50 test items for assessment of logical thinking, 20 items on a foreign language and 30 test items on a speciality were offered to bachelors.

2 hours and 30 minutes were allotted for answering examination questions. Each correct answer was estimated by one point. Wrong answers did not influence the result of correct answers.

In the block of languages bachelors of the Azerbaijan sector could choose English, German, French or Russian, and bachelors of Russian sector – the English, German or French language.

The bachelors who submitted documents for admission to specialities of directions HSM 020000 Philology and HSM 040000 Linguistics could not choose language of specialisation as a foreign language.

The bachelors who submitted documents for a speciality with training in English, as a foreign language could choose only English.

The bachelors who chose specialities of directions HSM 020000 Philology and HSM 040000 Linguistics (except the specialities on the Azerbaijan, Russian and English languages and literature), also the bachelors who chose specialities of the direction HSM 050000 Journalism, instead of test items on a speciality, wrote a composition (an essay) on the given theme. The written work was performed in the language corresponding to a speciality chosen by the bachelor (in the language of specialisation).

The bachelors wishing to be admitted to specialities HSM 040014 Translation, HSM 040013 Simultaneous interpretation, HSM 040008 Theory of translation and interlingual relationship of the direction HSM 040000 Linguistics, instead of test items on a speciality, translated the offered text from Azerbaijani or Russian, depending on training sector, into the language of specialisation.

The bachelors who chose certain specialities also answered several questions in the written form instead of answering multiple-choice test items. These written works were estimated on a 30-point marking scale.

Specialities to which admission was carried out are grouped on the basis of programs of the entrance examinations defining the contents of examination. The speciality in the master's degree chosen by the bachelor should correspond to the speciality graduated by the bachelor. With a view of rendering assistance at the speciality choice, "Tables of the choice of specialities" corresponding to specialities graduated by bachelors were prepared and published in the 1st number of the special issue "Master". Thus, each bachelor could define possibilities of choice of specialities depending on the speciality graduated by him in the bachelor's stage.

Bachelors could choose 1-10 codes of specialities of various state and private higher schools with training on a free and paid basis within the limits of the uniform program of admission. The sequence of chosen specialities was defined by the bachelor himself, and he was admitted to the first of the specialities for which the applicant was selected from among other candidates on the competition on the basis of the exam results (pass marks).

Bachelors with the total score (mark) of not less than 50 were allowed to take part on competition on a speciality. Thus, the bachelor should score not less than 17 points on logical thinking, not less than 10 points on a speciality and not less than 7 points on a foreign language (not less than 16 points on the English language for specialities with training in English).

With the total score of more than 65 restrictions on scores on logical thinking and foreign language (except for competition on specialities with training in English) were not applied for participation of candidates on the competition of candidates.

If it was impossible to admit two and more bachelors with an identical total score within the limits of the admission plan, additional indicators were considered in the following order:

- The score on a speciality (for test items, an essay, translation, written answers to questions);
- The score for test items checking logical thinking;
- The average score on the bachelor level.

In 2009 entrance examinations were conducted at two stages. At the first stage the logical thinking of the bachelor, level of knowledge of a foreign language and informatics (computer science) were examined by testing method, and at the second stage their knowledge on a speciality was tested by use of multiple-choice test items or by written exam (essay, translation or written answers to questions on a speciality).

Each correct answer of the bachelor is estimated by one point. Wrong answers do not influence the sum of correct answers.

At the first stage 50 test items for logical thinking, 25 on computer science and 25 on a foreign language were offered to bachelors.

As a foreign language the candidates from Azerbaijan sector are given the possibility to choose English, German, French or Russian, and bachelors of Russian sector – English, German or French. The bachelors, wishing to choose specialities of directions HSM 020000 Philology, HSM 040000 Linguistics cannot select the language of specialisation as a foreign language.

The bachelors wishing to choose master specialities with training in English can choose only English as a foreign language.

At the second stage of admission examination bachelors with the total score of not less than 50 are allowed to participate. Thus, the points scored by the bachelor for test items for logical thinking, should be not less than 20, on computer science not less than 10, on a foreign language not less than 10.

The bachelors allowed to the second stage of admission examination, in target dates enter their electronic application form, choose the program and the specialities corresponding to their bachelor speciality.

The specialities in the master's degree chosen by the bachelor should correspond to the speciality graduated by the bachelor. Each bachelor can choose 1-10 codes of specialities of the state and private higher educational institutions with training on a free and paid basis. The chosen specialities should belong to the same program of admission.

Bachelors could choose 1-10 codes of specialities of various state and private higher schools with training on a free and paid basis within the limits of the uniform program of admission. The sequence of chosen specialities was defined by the bachelor himself, and he was admitted to the first of the specialities for which the applicant was selected from among other candidates on the competition on the basis of the exam results (pass marks).

The persons wishing to receive the second master's degree can choose only specialities with training on a paid basis.

Citizens of foreign states can choose only specialities with training on a paid basis if the current legislation and intergovernmental agreements do not provide other cases.

At the second stage the level of knowledge on the chosen speciality is examined by offering 50 test items (or written examination).

The bachelors who chose specialities of directions HSM 020000 Philology and HSM 040000 Linguistics (except the specialities on the Azerbaijan, Russian and English languages and literature), and the bachelors who chose specialities of the direction HSM 050000 Journalism, instead of test items on a speciality, wrote a composition (an essay) on the given theme. The written work was performed in the language corresponding to a speciality chosen by the bachelor (in the language of specialisation).

The bachelors wishing to be admitted to specialities HSM 040014 Translation, HSM 040013 Simultaneous interpretation, HSM 040008 Theory of translation and interlingual relationship of the direction HSM 040000 Linguistics, instead of test items on a speciality translated the offered text from Azerbaijani or Russian, depending on training sector, into the language of specialisation.

The bachelors who chose certain specialities also answered several questions in the written form instead of answering multiple-choice test items. These written works were estimated on a 50-point marking scale.

At the first stage of examination 2 hours and 30 minutes, and at the second stage - an hour and 30 minutes were allotted for answering exam questions.

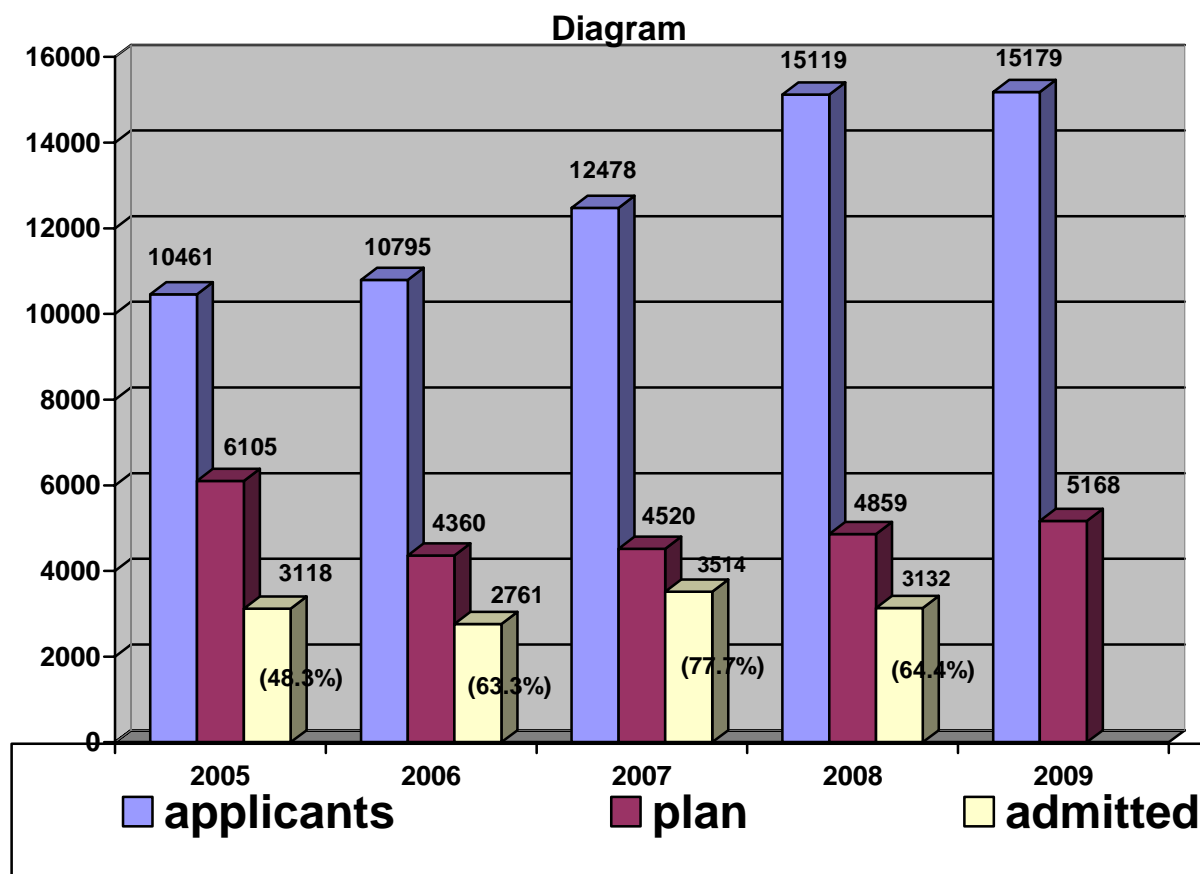
Bachelors with the total score (mark) of not less than 75 were allowed to take part on competition on a speciality. Thus, the bachelor should score not less than 20 points on logical thinking, not less than 20 points on a speciality and not less than 10 points on a foreign language (not less than 20 points on the English language for specialities with training in English).

If it was impossible to admit two and more bachelors with an identical total score within the limits of the admission plan, additional indicators were considered in a following order:

- The score on a speciality (for test items, an essay, translation, written answers to questions);
- The score for test items checking logical thinking;
- The average score on the step of the bachelor.

Bachelors should participate at each stage of examination according to the address and the date specified by the SSAC and it is obligatory to take let-pass paper and the identity card in order to enter the examination venues (for each stage separately).

The diagram of the basic characteristics of admission to master's degree from 2005- to 2009



The table of the basic characteristics of admission to master's degree from 2005-to 2009

Year	2005	2006	2007	2008	2009
Number of applicants	10461	10795	12478	15119	15179
Admission plan	6105	4360	4520	4859	5168
Number of the candidates admitted to master's degree	3118 51.07%	2761 63.33%	3514 77.74%	3132 64.46%	
Number of the admission programs	15	168	79	68	68
Number of the exam questions	100 + essay (logical thinking 50, foreign language 20, speciality 30)	100 (logical thinking 50, foreign language 20, speciality 30)	100 (logical thinking 50, foreign language 20, speciality 30)	100 (logical thinking 50, foreign language 20, speciality 30)	150 (100+50) (logical thinking 50, foreign language 25, informatics 25, speciality 50)

Minimal condition for participation at the compition	Total score - 50 speciality-10	Total score -50 speciality-10	Total score - 50 speciality-10	Total score - 50 speciality-10 logical thinking-17 foreign language-7	Total score -75 speciality-20 logical thinking-20 foreign language-10 informatics-10
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The Contents of the special edition "Master"

2006-2008	2009
"Master" No.1 - admission rules, the table of choice of a speciality, programs for logical thinking, foreign languages and specialities	"Master" No.1 - admission rules, programs for the 1st stage of exam (logical thinking, foreign language and informatics)
"Master" No.2 - the announcement about admission, the admission plan, the table of choice of a speciality, programs for the 2nd stage (speciality)	"Master" No.2 - the table of choice of a speciality, programs for the 2nd stage (speciality)
"Master" No.3 - the list of the candidates admitted via competition, pass marks (scores) for specialities	"Master" No.3 - the announcement about admission, sample items for the 1st stage of the admission exam
	"Master" No.4 – announcements about the choice of a speciality and the 2nd stage of the exam, admission plan
	"Master" No.5 - the list of the candidates admitted via competition, pass marks (scores) for specialities

Recent research has indicated the validity of the Master degree admission test as a predictor of students' achievement outcomes. An important consideration in the use of test results during the selection process for prospective students is that scores predict subsequent achievement outcomes similarly for all groups of students who take the test. The examination to master degree appears to be the standardized test used to determine the scholastic potential of master degree applicants. It is an aptitude test, thought to reflect intelligence or the capacity to learn. Test takers solve problems, synthesize information, and reason relationships between pieces of information, all of which are relevant to graduate studies. More specifically, the test includes a series of items designed to assess specific verbal, quantitative, and analytical skills. Master degree admission exam is designed to predict performance in graduate school through verbal, quantitative, and analytical reasoning questions. The exam scores can be considered as a meaningful source of information about an applicant's chance for success in a master program. The applicants admitted with higher scores are usually successful at the master level as well.

The skills measured at the entrance exam include the test taker's ability to:

- analyze and evaluate written material and synthesize information obtained from it,
- analyze relationships among component parts of sentences,
- recognize relationships between words and concepts.
- understand basic concepts of arithmetic, algebra, geometry, and data analysis,
- reason quantitatively,
- solve problems in a quantitative setting.

The test scores as well as essay scores provide common measures for comparing the qualifications of applicants and aid in the evaluation of grades. Different items used in combination with essays can indicate the strengths and weaknesses of individual students' preparation and may be useful for guidance, selection and placement purposes.

The Reasoning Test and analytical essays quantify applicant's critical thinking ability and creativity; the skills he will need for academic success at the master degree program.

We hope in the future, university admissions tests will more comprehensively assess the full range of skills that are important for success, both at university and in life.

THE CONCLUSION

- The system of admission to master's degree in Azerbaijan has a short history.
- This system is effective and it is proved by success in practice.
- Thousands of qualified bachelors have been admitted by means of these fair, reliable and tested procedures of admission.

- In order to meet modern requirements of the republic and current tendencies of development of education in the world, with a view of integration into Bologna process, the admission system in Azerbaijan is developing and improving taking into account national features of the country, studying the international experience.

- Testing is an extremely valuable part of educational assessment, but it is only part of the formula for quality learning. Additional research may help to learn more deeply the intended and unintended consequences of standardized testing in educational decision making.

Testing method definitely plays an important role in maintaining accountability in the educational systems. Objective measures are necessary to determine if students are mastering the necessary skills and critical concepts needed to ensure future success.

The assessment process facilitates, monitors and reports the degree to which students become creative thinkers and problem solvers.

The positive impact of admission exams on students' subsequent development in higher education gives us the chance to speak about the appropriateness of the use of this assessment methods in the future for final graduate exams, and in the process of accreditation of higher educational institutions.

Thank you for your time and attention.