

Different Assessment Tools Applied for Admission to Graduate Education in the Republic of Azerbaijan

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Abstract

The paper deals with the centralized admission examinations to graduate education level which have been conducted by the State Examination Centre (the SEC) of the Republic of Azerbaijan in the country since 2005. The SEC has been improving the content and format of admission examinations ever since.

Application for admission to graduate education is conducted via Internet. Admission examination is held in two stages:

At the first stage of the examination, the logical thinking, foreign language and computer science skills of the applicants are assessed via paper-based test examination. Those who meet the conditions of admission competition, gain the right to participate at the second stage of the examination.

At the second stage, the knowledge of the bachelors in the sphere of speciality is assessed by means of paper-based examination. Bachelors choosing several admission programmes answer both multiple-choice and constructed-response test items in this stage of the examination. Graduate degree specializations are grouped into 75 programmes. The bachelors who choose certain programmes answer the given questions in the written form. The bachelors who choose the specializations requiring special aptitude take aptitude examinations instead of test examination. The bachelors who want to be admitted to foreign language specializations write essays in foreign languages. The bachelors who want to be admitted to translation specializations translate the material given in the mother tongue into foreign languages. The bachelors who want to be admitted to journalism specializations pass both oral interview and essay-writing stages.

After the SEC reports the results of the second stage of the examination for admission to graduate programmes of higher education institutions and Azerbaijan National Academy of Sciences the exam participants who meet the minimum requirements set by the SEC choose specializations and are admitted to graduate programmes on the basis of their scores gained in two exam stages.

THE PAPER

The two-level model of higher education has been applied in Azerbaijan since 1997: the bachelor and the master levels.

Admission to bachelor's degree has been conducted by the former State Students Admission Commission (SSAC) by centralized testing since 1992.

According to "Regulations about the State Students Admission Commission" approved by the Decree of the President of the Republic of Azerbaijan dated April 6th, 2005, the SSAC has been conducting centralized admission examinations to master's degree of higher education institutions of our country since 2005. The Commission was reestablished in 2016 by the Decree of the President of Azerbaijan and now it is functioning as the State Examination Centre (SEC) of the Republic of Azerbaijan).

Admission is regulated by “Admission Rules for master's degree of higher education institutions of the Republic of Azerbaijan and Azerbaijan National Academy of Sciences” developed by the SEC and approved by the Cabinet of Ministers of the Republic of Azerbaijan. 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 education.

Admission examinations to master's level have been conducted at two stages since 2009. At present the logical thinking of the bachelors, the level of their knowledge of a foreign language and informatics (computer science) are examined by testing method at the first stage and their knowledge on the speciality they graduated from is tested by use of multiple-choice test items or by means of written exam (essay, translation or written answers to questions on a speciality) at the second stage.

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 are offered to bachelors.

Bachelors with the minimal required score out of possible 100 are allowed to participate at the second stage of admission examination. The detailed information on the structure and the requirements for the examination results are given below in Tables 1 and 2.

The structure of admission examinations to master's level

Table 1

Stages of examination	Assessed competencies	Number of items	Duration
First stage	<i>Logical thinking</i>	50 items (45 multiple choice, 5 open ended)	2 hours and 30 minutes
	<i>Computer science (Informatics)</i>	25 items (20 multiple choice, 5 open ended)	
	<i>Foreign language</i>	25 items (20 multiple choice, 5 open ended)	
Second stage	<i>Knowledge on speciality</i>	50 items (45 multiple choice, 5 open ended)	1 hour and 30 minutes

Requirements for the result of examinations

Table 2

Master degree speciality groups	Minimal requirement defined for the result of the first stage*		Minimal requirement defined for the result of the second stage (aptitude examination)		Minimal requirement defined for overall score	
	Minimal requirements on subjects	Minimal requirement	For places	For places	For places	For places

	Subjects	Minimal required score	on the First Stage	on the state order	on paid basis	on the state order	on paid basis
Education Engineering and Technology Health, Welfare and Services (Except Physical Education and Sport)	<i>Logical thinking</i>	15	40 points	25 points	20 points	65 points	60 points
	<i>Computer science (Informatics)</i>	5					
	<i>Foreign language</i>	5					
Humanities and social sciences	<i>Logical thinking</i>	15	50 points	25 points	20 points	75 points	70 points
	<i>Computer science (Informatics)</i>	5					
	<i>Foreign language</i>	5					
Natural sciences Economy and administration	<i>Logical thinking</i>	15	45 points	25 points	20 points	70 points	65 points
	<i>Computer science (Informatics)</i>	5					
	<i>Foreign language</i>	5					
Culture and art Agriculture Physical Education and Sport Special purpose specialities (military, defence, emergency situations, etc.)	<i>Logical thinking</i>	10	30 points	20 points	15 points	50 points	45 points
	<i>Computer science (Informatics)</i>	5					
	<i>Foreign language</i>	5					

Graduate degree specializations are grouped into 75 programs combining all 8 groups of specialities confirmed by “Classification of specialties (specializations) in the master's degree of higher education” such as groups of specialities in the sphere of education, humanities and social sciences, culture and art, economy and administration, natural sciences, engineering and technology, agriculture, health, welfare and services. Most of the applicants (those who choose 54 out of 74 admission programs) answer both multiple-choice and open-ended test items at the second stage of the admission exam and their responses are checked by use of only computer equipment. The bachelors who want to be admitted to the specializations requiring special aptitude such as music, painting, design, acting, stage direction (3 admission programs), take aptitude examinations instead of test exam. The bachelors who choose certain programs answer the questions given in the sphere of their bachelor speciality in the written form (15 admission programs). The bachelors who want to be admitted to foreign language specializations write essays in foreign languages (1 admission program). The bachelors who want to be admitted to translation specializations, translate the material given in the mother tongue into foreign languages (1 admission program). The bachelors who want to be admitted to specializations of journalism pass both oral interview and essay-writing stages (1 admission program).

After the SEC reports the results of the second stage of the examination for admission to graduate programs of higher education institutions and Azerbaijan National Academy of Sciences the exam participants who meet the minimum requirements set by the SEC choose specializations and are admitted to graduate programs on the basis of their scores gained in two exam stages.

Every year thousands of applicants sit the graduate education admission examinations in our country. For example, 12545 applicants holding the bachelor's degree from universities took this exam in 2019 and 6479 out of them were admitted for master degree education.

As we stated above, the bachelors who choose specializations of directions of Philology and Linguistics (except the specializations of the Azerbaijan, Russian and English languages and literature), and the bachelors who choose specializations of the direction of Journalism write a composition (an essay) on the given theme instead of answering test items on the speciality. The written works are performed in the language corresponding to the speciality chosen by the bachelors (in the language of specialization).

The bachelors wishing to be admitted to specializations of Translation, Simultaneous interpretation, Theory of translation and interlingual relationship of the direction of Linguistics, instead of answering multiple-choice test items on their speciality, translate the offered text from Azerbaijani or Russian, depending on the sector of training, into the language of specialization.

These written works are assessed on a 5-point marking scale and then converted into a 50-point scale.

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

You can see the short information about graduate degree specializations and admission programs for year 2019 below:

TABLE illustrating the year 2019 admission statistics

Graduate degree specializations were grouped into 75 programs combining all 8 groups of specialities.
First stage of the exam: 12545 applicants
All applicants answered both multiple-choice and open-ended test items.
Second stage of the exam: 8705 applicants Admitted: 6479
On 3 admission programs (68, 69, 70), applicants who wanted to be admitted to the specializations requiring special aptitude such as music, painting, design, acting, stage direction took aptitude examination: 149 applicants Admitted: 125
On 1 admission program (41), applicants who wanted to be admitted to foreign language specializations wrote essays in foreign languages: 46 applicants Admitted: 33
On 1 admission program (43), applicants who wanted to be admitted to translation specializations, translated the material given in the mother tongue into foreign languages: 33 applicants Admitted: 22
On 1 admission program (44), applicants who wanted to be admitted to specializations of journalism passed both oral interview and essay-writing stages: 15 applicants Admitted: 15
On 12 admission programs (25, 30, 51, 52, 57, 60, 61, 62, 63, 64, 65, 74) applicants answered the questions given in the sphere of their bachelor speciality in the written form: 63 applicants Admitted: 32
On the remaining 57 admission programs applicants answered both multiple-choice and open-ended test items: 8339 applicants Admitted: 6252

Our paper deals mainly with essays written by applicants who choose specializations of directions of philology and foreign languages in the year 2019. Information about these applicants is given below in Table 3.

Information about the applicants writing essays for admission to specializations of directions of Philology and Linguistics

Table 3

	Languages	Number of applicants
1.	French	15
2.	German	13
3.	Spanish	1
4.	Arabic	6
5.	Persian	3
6.	Turkish	2

	Languages	Number of applicants
7.	Hebrew	2
8.	Urdu	1
9.	Japanese	1
10.	Korean	1
11.	Chinese	1
Total		46

Because of the time needed to score essay questions and the limited amount of content that can be covered in them, essay questions are used only when other types of questions cannot measure accomplishment of the objective(s). They are particularly appropriate when the number of students being tested is small. They can be useful when there is little time to prepare the assessment but more time to grade it.

Essay tests or questions should be aligned with objectives and instructions, as are other types of assessments. Assessment on the basis of essays provides an opportunity for bachelors to demonstrate the higher-order thinking skills. That is why we pay special attention to give instructions that should prepare candidates for essay writing. Necessary materials and instructions for the bachelors preparing for written exam are worked out and published by the SEC in the journal “Magistr” (Master) in order to prepare candidates for essay-writing and translation more effectively.

Essay questions eliminate the possibility of the students' guessing the correct answer. However, essay questions are generally more time-consuming to grade than other types of questions and there are several factors that can influence the grade awarded. In order to respond to essay questions, students need to have writing skills and may be unfairly penalized because of handwriting, spelling, grammar, neatness, vocabulary, sentence structure, organization, etc. if they are not part of the content being assessed. To prevent this from happening, we suggest that combined grades or scores be given for essay content and writing skills. This involves scoring all essays holistically and analytically.

Scoring should be free from bias, subjectivity and reliability variables. There is a risk that the grading of essay responses can be subjective and unreliable. The concept of reliability is commonly applied to the results of tests and measurement instruments. When consistent results can be obtained with an assessment, we can say that the instrument is reliable. In the case of essay papers, reliability is dependent on the scoring of the question. For the scoring to be reliable, there should be consistency among scorers. Two individuals independently scoring the same set of papers should arrive at the same scores. Unreliability may be shown by the teacher's

awarding higher grades to some students when their answers do not justify the marks. The order in which papers are graded can also have an impact on the grades that are awarded. A teacher may grow more critical (or more lenient) after having read several papers, thus the early papers receive lower (or higher) scores than papers of similar quality that are scored later. Also, if the scorer becomes tired, his or her judgement can be affected. If the student takes a position contrary to that of the scorer, the scorer must be sensitive to possible bias in scoring the essay because the student's position differs from that of the scorer.

The scorers, graders, markers or readers, who are university faculty hired by our Centre for this purpose, evaluate the essays on a 0 - 5 marking scale. Two trained readers/graders assign each essay a score between 0 and 5, where a score of “0” is reserved for essays that are blank, off-topic, not written in a foreign language, considered illegible after several attempts at reading or contain any information or hint about the author. “5” is the highest possible score. If the two scores are within one point of each other, they are averaged to produce a final score from 0 to 5. If the two readers' scores differ by more than one point, then a third experienced grader reads the essay and adjudicates the discrepancy. Neither reader is aware of the other's score. The final score for the essay is the average of the first two readers' scores or the average of the adjudicated grade and the grade which is higher and closer to it. In year 2019 only 3 out of 46 essays written in foreign languages by the applicants went to the third grader to resolve the discrepancy between the scores given by the first and second graders.

The criteria for each score (0 - 5) have been prepared by the SEC experts taking into consideration the international experience in this sphere. There are four basic criteria for evaluation:

1. *Content* — the strength, relevance and persuasiveness of the bachelor's ideas, the ability to present arguments through sound reasoning and supporting examples;
2. *Organization* — the bachelor's ability to present his/her ideas in an organized and cohesive manner: how clearly the ideas flow and connect together from one to the next;
3. *Language* — the bachelor's facility with the vocabulary of the foreign language, specifically, word choice and usage and syntax (sentence structure);
4. *Mechanics or Grammar* — the bachelor's facility with the conventions of standard written language, grammar, spelling, punctuation and so forth.

The first two areas are far more important than the last two. However, writing style, grammar and diction — i.e., the bachelor's ability to communicate ideas effectively in writing — may influence readers as well. So the bachelor should strive to demonstrate competency in all four areas. Of course, if he is weak in one area, he can still achieve a high score by demonstrating great strength in other areas.

Our Centre instructs the readers to evaluate essays both holistically and analytically. An essay that demonstrates competency in all four areas will probably earn a higher score than an essay that contains excellent ideas but contains many mistakes in grammar, word usage, spelling and punctuation.

The readers who score the essays are mostly experienced higher school teachers and university faculty members who teach adequate courses. Professional journalists working in mass media are also among the graders of journalistic essays.

Prior to the exam, some weeks before scoring essays, the SEC organizes a training course for readers that familiarizes them with the principles of scoring and teaches them to evaluate essays according to the agreed-upon standards.

Immediately after the exam is over, the bachelors' essays are sent to the central processing location of our Centre, ciphered there and two copies of each written paper are made. The day after the exam, each of the essays are read and evaluated. Two graders read and score each essay independently and simultaneously, each reader sitting in a different room is given a copy of a written work and no reader is informed of any other reader's score.

All readers employ the same evaluation criteria by which he or she assigns a single score from 0 to 5 (0, 1, 2, 3, 4 or 5) based on the overall quality of the writing in response to the assigned task.

Essays can evaluate more complex cognitive or thinking skills assuming that rote memory and recall tasks are assessed more appropriately through multiple choice test items.

Advantages:

- *Require students to demonstrate critical thinking in organizing and producing an answer beyond rote recall and memory;*
- *Empower students to demonstrate their knowledge within broad limits beyond the restraint of objective multiple choice tests;*
- *Allow learners to demonstrate originality and creativity;*
- *Reduce preparation time in developing a test, especially for small number of students;*
- *Present more possibilities for diagnosis and selection during admission exams.*

Disadvantages:

- *Grading is often subjective and not consistent, coloured by preconceptions of student's neatness and handwriting, spelling and grammar;*
- *Can be a limited sampling of content;*
- *Good writing requires time to think, organize, write and revise;*
- *Time consuming to correct;*
- *Advantageous for students with good writing and verbal skills;*
- *Essay topics are not always proper to assess higher thinking skills;*
- *Advantageous for students who are quick, as opposed to those who take time to develop an argument.*

The goals of the creative essay task are to evaluate a candidate's ability to think and write creatively and to assess the breadth of his/her knowledge and education. This kind of question gives students an opportunity to convey their personalities and views.

In order to select the best possible candidates for admission, we are not only carefully evaluating a student's academic history and standardized test scores, but also the student's ability to successfully put his/her ideas into writing. The skills demonstrated through the admission essay are a valid indication of a student's academic strength.

The admission essay accomplishes three goals:

1. to convey a sense of the student's unique character;
2. to demonstrate the student's writing skills;
3. to demonstrate the student's ability to organize thoughts coherently.

What is the basic structure of an essay?

All essays regardless of their intended purpose have three basic components: an introduction, a body and a conclusion.

Two evaluators score the essay according to its overall effectiveness. Their evaluation is based on the following features:

- Well-focused main points;
- Clear organization;
- Specific development of the ideas;
- Control of sentence structure, punctuation, grammar, word choice and spelling.

Test-takers are asked to write an essay consisting of 2 - 4 pages on an assigned topic.

Each essay must be written within 90 minutes and is scored on a scale of 0 - 5. The readers evaluate the quality of the examinee's ideas and his or her ability to organize, develop and express ideas with relevant support. While mastery of the conventions of written language factor into scoring, minor errors are expected.

Each essay is graded on a scale of 0 (the minimum) to 5 (the maximum):

- 0 - An essay that is totally illegible or obviously not written on the assigned topic.
- 1 - An essay that is fundamentally deficient.
- 2 - An essay that is seriously flawed.

- 3 - An essay that is merely adequate.
- 4 - An essay that is strong.
- 5 - An essay that is outstanding.

Papers whose average scores are 2.5 and higher, satisfy the entry level writing requirement; papers whose average scores are 2 and below, do not.

The essay assesses the bachelor's ability to think critically about a topic of general interest and to clearly express his thoughts about it in writing and to explain and support his reasoning for the position he or she takes.

The accuracy and quality of the response are judged by the graders.

The Scoring Guide expresses the criteria readers use to evaluate and score the essays. The guide is structured on a five-point scale. Graders/readers are trained to use the Scoring Guide.

Instruction (Scoring Guide) for the experts grading compositions (essays) written at admission examination by the bachelors, wishing to enter the master's level of higher education institutions on specializations of directions of Philology and Linguistics

The expert independently checks and evaluates on a five-point scale the written works presented to him, strictly observing the norms of evaluation established in the given instruction. While reading the scanned copy of the ciphered written work presented to him/her the expert reveals and rectifies the errors admitted in the writing, makes his/her notes connected with the written work (about quantity, character of errors, etc.) on free fields of the paper. The expert after grading each written work enters his/her code number, the mark (in figure and word) on the last page in corresponding cells, short opinion on the written work, undersigns it and hands over the graded written works to the representative of the SEC in the hall.

The mark is given with the account of the contents and literacy level.

Our recent research has indicated the validity of the master degree admission test and other tools as predictors of students' achievement outcomes. An important consideration in the use of exam results during the selection process for prospective students is that scores predict subsequent achievement outcomes similarly for all groups of students who take the exam. 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 test scores as well as essay and translation scores provide common measures for comparing the qualifications of applicants. Different items used in combination with essays, translations and other written admission works can indicate the strengths and weaknesses of individual students' preparation and may be useful for guidance, selection and placement purposes.

The admission tests and other assessment tools quantify applicant's critical thinking ability and creativity; the skills he/she will need for academic success at the master degree program.

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

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