



Co-funded by the  
Erasmus+ Programme  
of the European Union



# ANNEXES TO FACT-FINDING COUNTRY REVIEW REPORT

## Kazakhstan

**“Promoting internationalization of research through establishment and operationalization of Cycle 3  
Quality Assurance System in line with the European Integration (C3QA)”**

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



**Table 1. Repartition of admission and graduation of students (B - Bachelor, M – Master, D – Doctorate level) by fields of knowledge, 2014-2017, in persons<sup>1</sup>**

Field		2014-2015			2015 -2016			2016-2017		
		B	M	D	B	M	D	B	M	D
<b>Total</b>	<b>Total number</b>	474 841	20 819	2 063	454 116	29 882	2 288	477 074	14 595	2 710
	<b>Admission</b>	124 723	16 941	729	113 972	15 261	794	147 692	7 430	1 086
	<b>Graduation</b>	177 678	15 880	503 (including 314 with thesis defense)	146 227	15 816	533 (including 175 with thesis defense)	121 829	4 802	619 (including 117 with thesis defense)
<b>Aviation equipment</b>	<b>Admission</b>	120	0	0	123	0	0	0	0	0
	<b>Graduation</b>	167	0	0	122	0	0	0	0	0
<b>Education</b>	<b>Admission</b>	32436	2 567	72	30 978	2 130	83	42 508	1 417	131
	<b>Graduation</b>	44712	2 595	45 (including 27 with thesis defense)	40 116	2 546	50 (including 16 with thesis defense)	33 250	1 145	50 (including 13 with thesis defense)
<b>Humanities</b>	<b>Admission</b>	4030	1 180	78	3 782	1 036	84	4 869	502	112
	<b>Graduation</b>	4264	980	61 (including 46 with thesis defense)	3 976	1 071	61 (including 8 with thesis defense)	3 573	711	59 (including 5 with thesis defense)

<sup>1</sup> The Committee on Statistics under the Ministry of National Economy of the Republic of Kazakhstan. Statistics on education. Bulletins for 2014, 2015, 2016. [http://stat.gov.kz/faces/publicationsPage/publicationsOper/homeNumbersEducation/EducationpublBulls13-2015;jsessionid=7JyPY91Wjwknc2RxSzVhQBRTf2qD6F1Bp9L4vJ8kTBHDNdtgyvT!-171251091!NONE?\\_adf.ctrl-state=10gx1hcu9z\\_4&\\_afLoop=22225598320033853#%40%3F\\_adf.ctrl-state%3Dj2nth89f7\\_4](http://stat.gov.kz/faces/publicationsPage/publicationsOper/homeNumbersEducation/EducationpublBulls13-2015;jsessionid=7JyPY91Wjwknc2RxSzVhQBRTf2qD6F1Bp9L4vJ8kTBHDNdtgyvT!-171251091!NONE?_adf.ctrl-state=10gx1hcu9z_4&_afLoop=22225598320033853#%40%3F_adf.ctrl-state%3Dj2nth89f7_4)



<b>Law</b>	<b>Admission</b>	13718	1 827	15	11 399	1 794	34	16 048	165	111
	<b>Graduation</b>	26616	1 934	19 (including 13 with thesis defense)	19 342	2 024	42 (including 22 with thesis defense)	16 870	267	32 (including 6 with thesis defense)
<b>Art</b>	<b>Admission</b>	9841	307	10	6 545	174	14	7 408	134	12
	<b>Graduation</b>	25993	234	18 (0 with thesis defense)	2 277	260	10 (including 10 with thesis defense)	2 618	181	-
<b>Social Sciences, Economics and Business</b>	<b>Admission</b>	19111	4 291	58	15 770	3 919	120	20 234	463	211
	<b>Graduation</b>	41933	4 693	115 (including 64 with thesis defense)	27 696	4 478	92 (including 49 with thesis defense)	20 560	897	77 (including 32 with thesis defense)
<b>Natural Sciences</b>	<b>Admission</b>	3732	1 026	69	3 511	909	68	4 057	676	80
	<b>Graduation</b>	4605	952	67 (including 39 with thesis defense)	4 358	1 066	66 (0 with thesis defense)	3 384	729	75 (including 8 with thesis defense)
<b>Technical Sciences and Technologies</b>	<b>Admission</b>	25328	3 222	194	0	4 030	209	31 102	3 275	236
	<b>Graduation</b>	36 130	2 889	124 (including 76 with thesis defense)	9	2 974	137 (including 45 with thesis defense)	25 736	2 124	182 (including 8 with thesis defense)
<b>Agricultural Sciences</b>	<b>Admission</b>	2 829	470	66	2 787	365	36	3 007	339	38
	<b>Graduation</b>	2190	354	21 (including 11 with thesis defense)	2 315	366	35 (including 6 with thesis defense)	2 420	430	41 (including 13 with thesis defense)
<b>Services</b>	<b>Admission</b>	5259	391	9	4 783	239	15	6 228	96	14
	<b>Graduation</b>	7735	383	7 (including 6 with thesis defense)	6 352	461	3 (including 3 with thesis defense)	4 210	226	3 (including 1 with thesis defense)
<b>Military</b>	<b>Admission</b>	0	6	2	611	16	2	834	4	-



<b>Affairs and Security</b>	<b>Graduation</b>	0	0	0	476	13	0	730	5	-
	<b>Admission</b>	5 779	307	88	854	275	92	1 082	268	96
<b>Health care and social security (Medicine)</b>	<b>Graduation</b>	3 066	158	147 (including 25 with thesis defense)	1 562	342	27 (including 13 with thesis defense)	1 484	293	83 (including 19 with thesis defense)
	<b>Admission</b>	1 163	130	13	1 225	110	12	1 373	91	15
<b>Veterinary Science</b>	<b>Graduation</b>	812	111	10 (including 7 with thesis defense)	752	118	10 (including 3 with thesis defense)	855	125	11 (including 10 with thesis defense)
	<b>Admission</b>									



**Table 2. Repartition of PhD graduates by fields of study for the last 5 years, in persons<sup>2</sup>**

Field		2012	2013	2014	2015	2016
Education	Admission	42	52	72	83	131
	Graduation	7	35	45	50	50
Humanities	Admission	51	56	78	84	112
	Graduation	20	29	61	61	59
Law	Admission	29	37	33	34	111
	Graduation	12	31	22	42	32
Art	Admission	10	8	10	14	12
	Graduation	10	8	-	10	-
Social Sciences, Economics and Business	Admission	66	78	58	120	211
	Graduation	75	115	115	92	77
Natural Sciences	Admission	94	72	69	68	80
	Graduation	73	53	67	66	75
Technical Sciences and Technologies	Admission	186	185	194	209	236
	Graduation	37	63	124	137	182
Agricultural Sciences	Admission	41	43	66	36	38
	Graduation	7	13	21	35	41
Services	Admission	-	2	9	15	14
	Graduation	2	7	7	3	3
Military Affairs and Security	Admission	35	-	2	2	-
	Graduation	10	-	-	-	-
Health care and social security (Medicine)	Admission	-	83	88	92	96
	Graduation	-	15	25	27	83
Veterinary Science	Admission	11	10	13	12	15
	Graduation	4	4	10	10	11

**Table 3. Number of doctorate students who defended their thesis, for the last 5 years, in persons<sup>3</sup>**

Field	2012	2013	2014	2015	2016	Total
Education	5	10	21	16	13	65
Humanities	12	4	11	8	5	40
Law	3	7	10	22	6	48
Art	10	8	-	10	-	28
Social Sciences, Economics and Business	16	30	43	49	32	170
Natural Sciences	39	9	19	-	8	75

<sup>2</sup> [The Committee on Statistics under the Ministry of National Economy of the Republic of Kazakhstan](#)

<sup>3</sup> [The Committee on Statistics under the Ministry of National Economy of the Republic of Kazakhstan](#)



Technical Sciences and Technologies	18	13	11	45	8	95
Agricultural Sciences	2	6	1	6	13	28
Services	-	-	3	3	1	7
Military Affairs and Security	2	-	-	-	-	2
Health care and Social Security (Medicine)	-	10	6	13	19	48
Veterinary	3	3	-	3	6	15
<b>Total</b>	<b>110</b> (42,8%)	<b>100</b> (26,8%)	<b>125</b> (24,8%)	<b>175</b> (32,8%)	<b>117</b> (18,9%)	<b>621</b> (27,1%)

**Table 4. The number of PhD students receiving state funding, 2011-2016, in persons<sup>4</sup>**

Level of education	2011-2012 academic year	2011-2012 academic year	2013-2014 academic year	2014-2015 academic year	2015-2016 academic year
PhD	868	1 296	1 892	2 063	2 228

**Table 5. Number of PhD students per gender in 2016/17<sup>5</sup>**

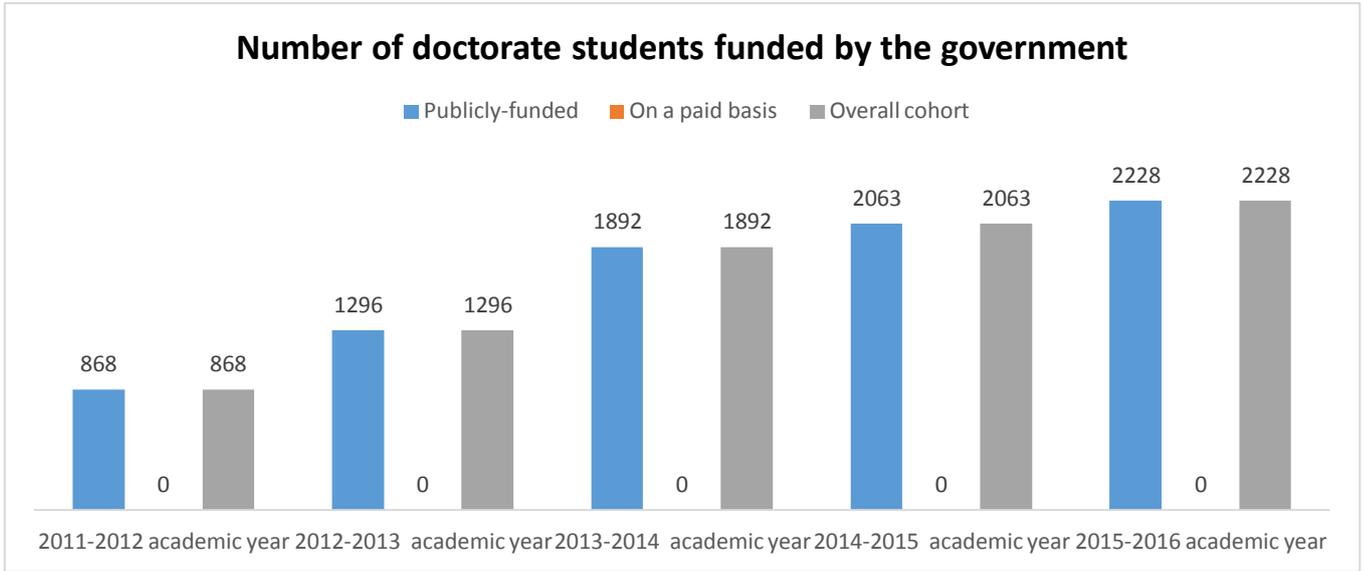
Speciality	Number of PhD students		
	Male	Female	Total
Education	63	224	287
Humanities	100	171	271
Law	84	92	176
Art	19	27	46
Economics and Business	158	285	443
Natural Sciences	91	135	226
Engineering Science and Technology	315	349	664
Agricultural Sciences	50	93	143
Services	17	23	40
Health and Social Care (Medicine)	86	187	273
Veterinary Science	14	27	41

<sup>4</sup> [The Committee on Statistics under the Ministry of National Economy of the Republic of Kazakhstan](#)

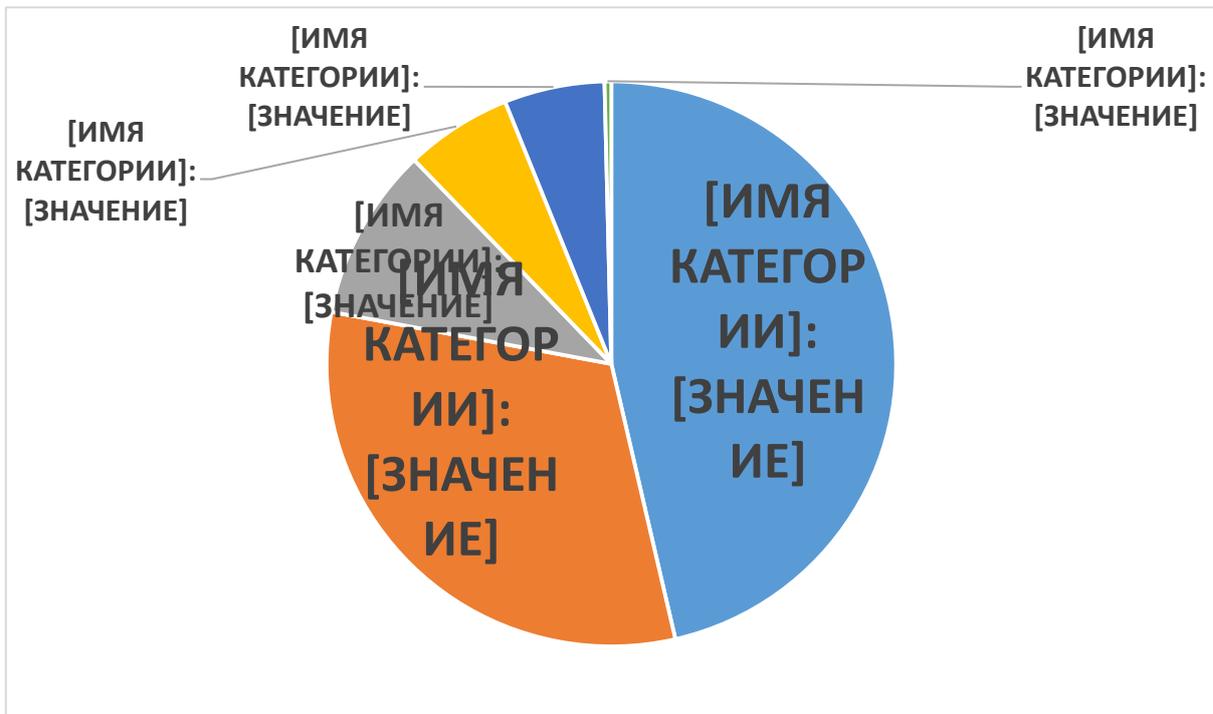
<sup>5</sup> [Committee on Statistics under the Ministry of National Economy of the Republic of Kazakhstan. Educational statistics. Bulletins for 2016](#)



**Diagram 1. The number of PhD students by funding sources, 2011-2016, in persons<sup>4</sup>**



**Diagram 2. Number of accredited PhD programmes by national and foreign quality assurance agencies**





## Chapter 2. Case of KAZGUU University

**Table 5. The list of international guest-lecturers in 2016**

#	Lecturer's name	University	Topic
1.	Artur Kozlovskii	University of Wroclaw (Poland)	Human rights protection in the EU
2.	Luydmila Galenskaya	Saint Petersburg State University (Russia)	Key issue in international law development
3.	Alexis Vahlas	University of Strasbourg (France)	The right of international treaties
4.	Avakjan Souren	Lomonosov Moscow State University (Russia)	Contemporary issues of the Constitutional Law
5.	Alexander Daudi	Fulbright program (US)	State administration
6.	Carmen Thiele	European University Viadrina	The Conceptions of scientific research on the basis of the international court jurisdiction
7.	Pavel Sturma	Charles University	Codification and progressive development of the International Law



### Chapter 3. Case of KAZGUU University. PhD students' survey results.

#### Survey results: Provision of PhD at KAZGUU (descriptive statistics)

Participants: PhD students

Number: 8

Programs: (1) Law; (2) International Law

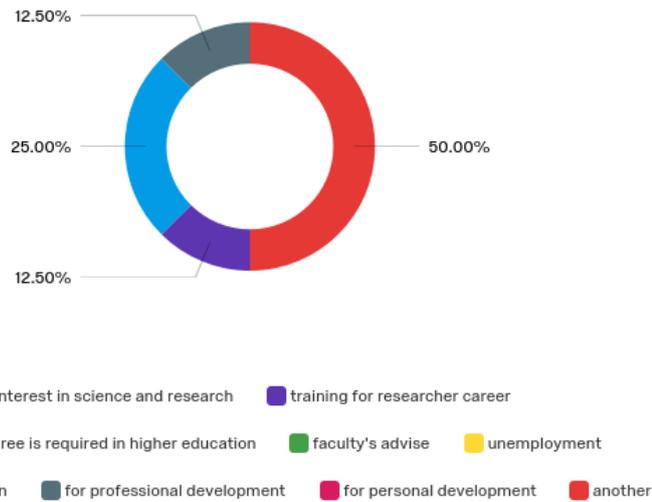
Year of enrollment: 2011, 2013, 2016

Gender: 3 male, 5 female

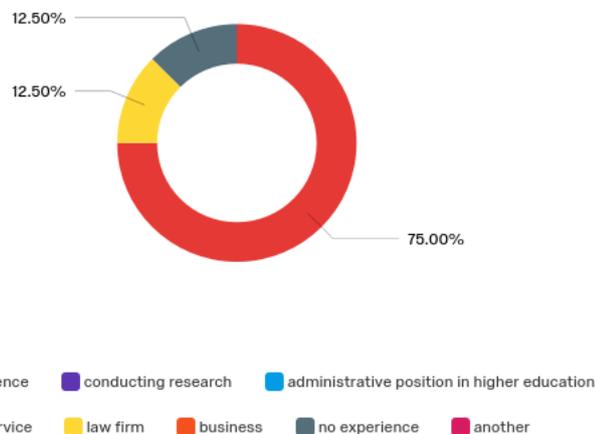
Age: 27-46

Funding: 4 funded by government, 4 pay tuition fees

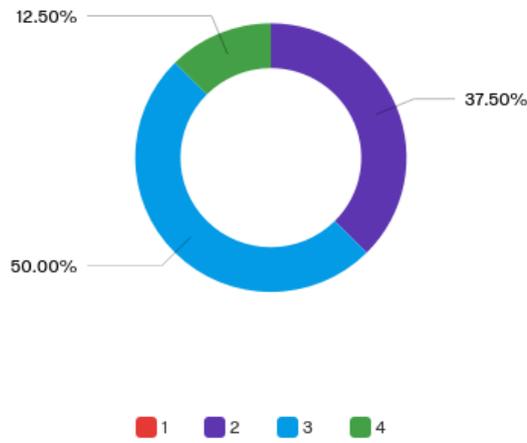
#### 1) Students' motivations to enroll into PhD programs



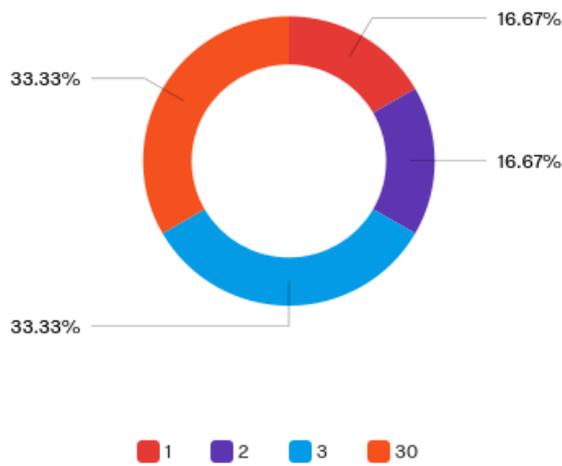
#### 2) Students' work experience



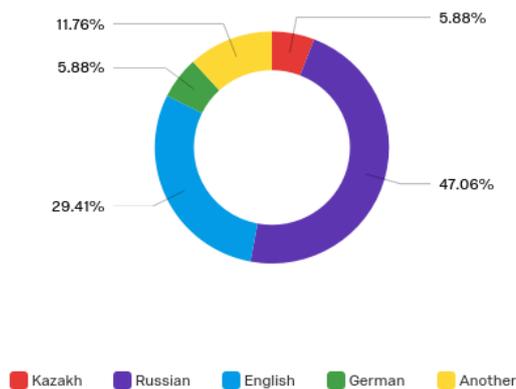
3) Number of research methodology courses students covered in PhD study



4) Number of hours spent per week on dissertation research. The value of Mean is 10.38.

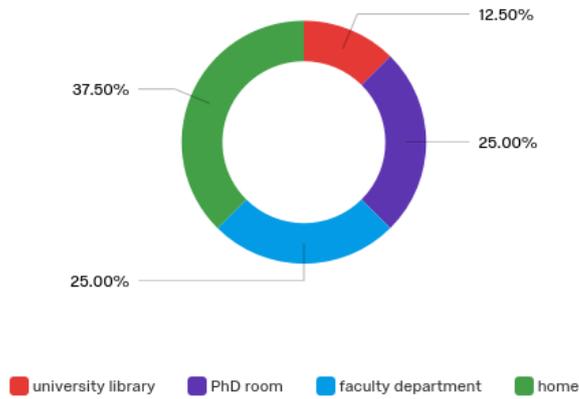


5) Languages of literature students read for their dissertation research

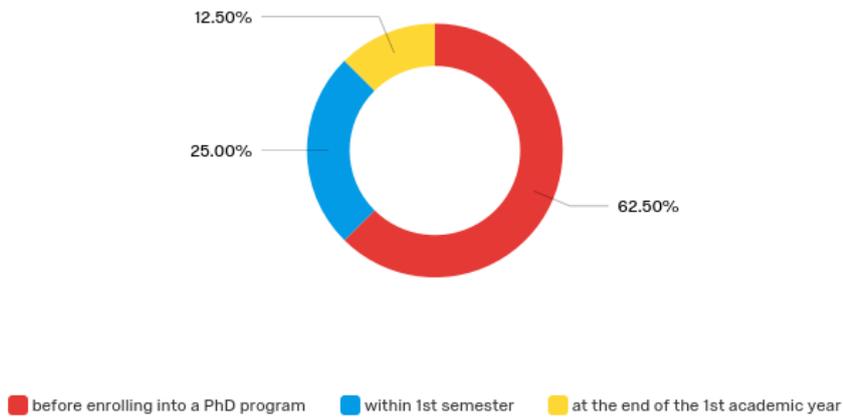




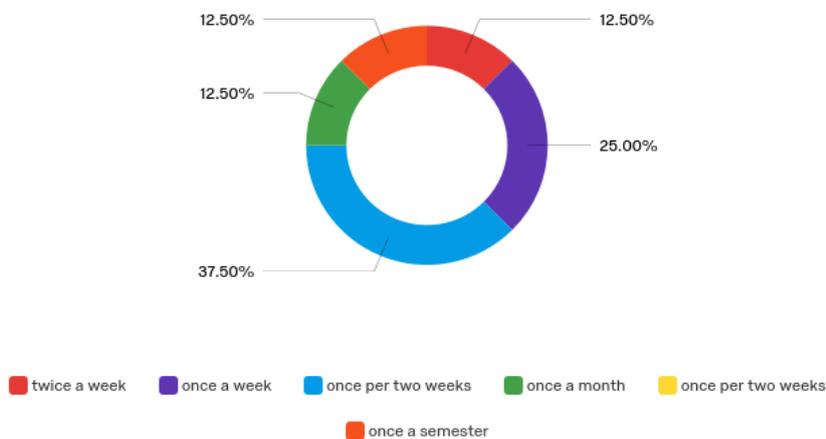
6) Place where students usually work on their dissertations



7) The period within which students define their PhD research topics

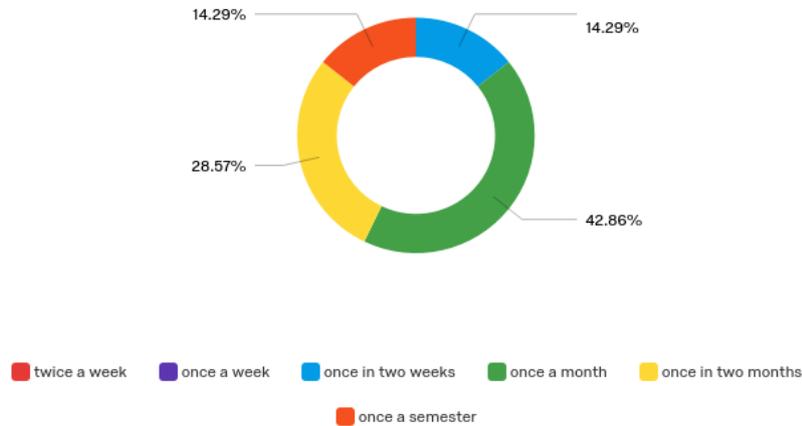


8) Number of meetings students have with their main supervisors



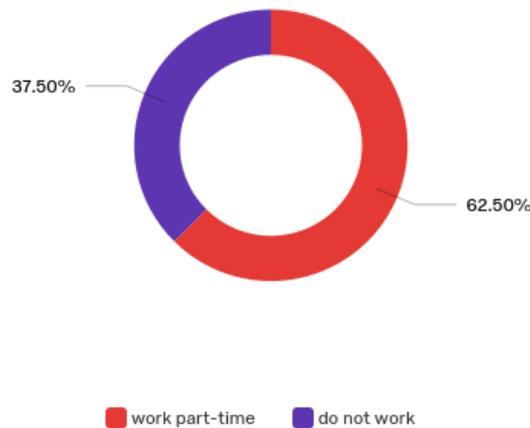


9) Number of meetings students have with their co-supervisors.

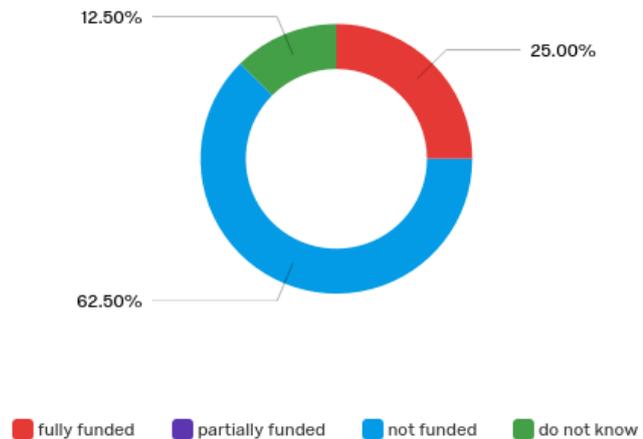


It is noteworthy that all students indicated that emails are the most common means of communication with their co-supervisors. Russia, Germany, France and Poland were mentioned as the countries where their co-supervisors are from.

10) Percentages of PhD students working \ not working part-time for additional income. The Mean of working hours per day for those who have part-time work is 8.2



11) Information about funding students' participation in international summer schools, conferences, forums, etc. (funding of international internship is not taken into account as it is funded by the government).



To improve provision of PhD programs at the university, students offered to organize a community of PhD students within the institution that can facilitate their communication as colleagues, peers, and experts in certain field, as well as help each other, learn from each other and share with each other research experiences obtained in doctoral programs.

## Evaluation of PhD programs in line with ESG for QA 2015

### 1. Policy for quality assurance

In general the university has institutional policies, describing quality assurance practices and processes either at internal or external levels. These policies are the basis of the programs evaluation procedures usually accomplished by the Graduate School of the university at internal level.

### 2. Design and approval of programs

Provision of each PhD program is accompanied by elaboration of regulating documents. These documents mentioned above describe in detail the procedures of program design and approval, people or parties involved into program design and approval as key stakeholders, including employers and students themselves. Moreover, each PhD program, its aims and objectives, learning outcomes and requirements are delineated in descriptive documents, such as students' brochures, as well as uploaded in the university official site.

### 3. Student-centered learning, teaching, and assessment

Even if PhD programs are introducing new courses and often deliver workshops developing knowledge, skills and competencies required from students by employers, mostly academia, for instance how to publish a scholarly journal article, how to improve publishing skills, not all initiatives



meet students' needs. Most often such workshops cover general information already known by students or conducted unsystematically that also affects their learning. Assessment criteria for the dissertation are not specified in any institutional policy documents or regulations, for example guidelines for writing a thesis. Generally students and supervisors refer to national requirements to PhD research projects. Such a situation often causes differences in practices either in supervision or in conducting research and writing a dissertation.

#### 4. Student admission, progression, recognition and certification

Students are provided with information on admission requirements, enrollment procedures and key stages of PhD education and training. However, it will be better, if all these documents and information can be updated systematically. The very vague information is given about the thesis submission process.

#### 5. Teaching staff

Teaching staff for PhD level are recruited on competitive basis. Requirements set up for PhD faculty and supervision are provided in institutional policy documents mentioned above. The situation with enrollment of local faculty is not so complex in comparison with co-supervisor that have to be from abroad, but not Kazakhstan. To accelerate the process of searching for co-supervisors, students are asked to take active part in this process. Moreover, as the university is limited in its contacts and network with international universities on collaboration in the field of research, it results in focusing on the same co-supervisors for some students from the same cohort or ending up in hiring professors or experts with little relevance to students' research projects. In this context, the issue of quality of supervision and quality of PhD research undoubtedly arises.

Besides the situation mentioned above, to increase quality within PhD programs, it is suggested to arrange training for supervisors themselves how to advice and direct their supervisee.



## Chapter 3. Interview of KAZGUU University

### Interview with PhD students

#### Interview 1.

1. What were the rationales for you to start a PhD in your country?

I have made this decision to apply for a PhD program in KAZGUU University because I'm satisfied with the quality of education and study conditions here. If I didn't enter this program maybe I could try to apply to a foreign university.

2. Information about PhD programs is clear and transparent.

3. Do you feel you have enough support from your professors? From the academic staff?  
Yes, the support is sufficient.

4. What are your expectations after your PhD?

I hope to work on research and teaching activities after my graduation.

5. What would you suggest to improve Doctorate studies in your university/country?

I'm completely satisfied with my PhD program. However, it would be good if theoretical part would finish a bit earlier. At the same time I realize that the university needs to negotiate the dates with foreign professors within the academic calendar. By the way, I'm really satisfied with the quality of teaching given by foreign professors.

#### Interview 2.

1. What were the rationales for you to start a PhD in your country?

Во первых ВУЗ один из сильнейших ВУЗов в РК, и я не жалею о выборе First of all, this university is one of the top in Kazakhstan and I don't regret about my decision to apply here. Secondly, I think that it's better to study in Kazakhstan than for example in the Russian Federation after which you need to do nostrification (recognition) to your diploma. I didn't consider other countries.

2. Information about PhD programs:

- clear?

yes

- easily accessible?

yes

- transparent?

yes

3. Do you feel you have enough support from your professors? From the academic staff?

Yes, it's enough

4. What are your expectations after your PhD?

Big experience exchange, broadening of the horizon, personal enrichment with knowledge, the possibility of raising the career ladder.

5. What would you suggest to improve Doctorate studies in your university/country?

With paid studies, make the program more affordable in terms of price or consider monthly payment.

Everything else I consider to be at the proper level.

#### Interview 3.

The interviewee suggests:



1. To agree the entrance examinations with the requirements for research skills. Current examinations (on the subject + English) do not give an assessment of the applicant's knowledge of the nature of the study, as well as his skills in conducting at least basic research because she noticed that some enrolled students do not even know how to report the results of the research;

2. In the process of admission, both exams weigh 50% each. She is disappointed why English takes the same weight (50% of the maximum score of 100%) as the exam on the field. Even if they understand the importance of English to acquire knowledge and skills in research, she insists that for people who do not study in Russian. Thus, a foreign language should take less weight in points for entrance examinations;

3. She needs a PhD thesis. Because it is required by the system. Since she plans to work, she needs to improve her knowledge and skills. In addition, she believes that KAZGUU provides high quality in Ph.D. Training. Suddenly she was told that she was studying some options for studying abroad, and she was not on the financial side. It was decided to study in Kazakhstan to avoid the procedure of nostrification (recognition), which is also very burdensome and takes a lot of time in the country.

## Chapter 3. Interview with the M.Auezov South Kazakhstan State University

### 3.2 Interview with the HEI

1. *PhD studies in the direction of Chemical Technology* is conducted.

2. *The objectives of the Cycle 3 programs:* ensuring the quality of education by presenting mandatory requirements for the level of training doctoral students and educational activities of higher education institutions, increasing the objectivity and informative evaluation of training doctoral students and the quality of educational programs; Training doctors possessing leadership qualities and skills of logical analysis of assigned tasks, able to work in an international team, and engage in organizational and managerial activities.

3. *How is Cycle 3 Program articulated with...*

- *with Master programs of your university?*
- *with research strategies and activities?*

Prerequisites for doctoral studies are the main disciplines of the Master's program; Scientific results obtained in the course of the master's thesis, are the basis (basis) for scientific research of doctoral students.

How is the doctoral program coordinated with the strategic planning and activities of the university: the implementation of scientific research by doctoral candidates lies in the mainstream of the strategic plan for the development of our innovative-oriented university for 2015-2020. In the direction of "Advanced research and commercialization of research results." Doctoral students are involved in the implementation of funded scientific projects, carry out part of the research on the project topic and upon completion of the work conduct tests of the experimental results obtained under industrial conditions and then, when they are confirmed, they are introduced into production. The main scientific results are necessarily published in rating scientific journals in Kazakhstan and in the countries of near and far abroad. The doctoral program includes foreign scientific internships for trainees and the involvement of professors from foreign partner universities as co-supervisors of a doctoral dissertation.

4. *Describe how Cycle 3 is organized (from recruitment to degree awarding) in your Cycle 3 programs?*

- *Do you meet any difficulties to recruit students? students?*
- *Do you meet any difficulty to recruit and motivate professors with accurate competencies?*



– Explain any other difficulties or challenges you meet?

- there are no difficulties connected with the admission of students; Doctoral students coming to study under our program, as a rule, have a corresponding basic education;
- there are no difficulties associated with attracting and motivating qualified personnel. The department has a high scientific and pedagogical potential - it employs 7 doctors of science and 13 candidates of sciences with extensive experience.
- other difficulties in the preparation of doctoral students - a very small training load of teaching staff, calculated for the scientific management of doctoral students, does not allow them to be given sufficient time, since the professors spend most of their working hours in conducting baccalaureate, master's and doctoral studies.

5. Is there any follow up system of the PhD graduates?

Yes, the employment of graduates and their work is monitored by both the department and the Center for Postgraduate Education of the University. The majority of doctoral students, after defending dissertations and approval in the Committee for Supervision in the Ministry of Education and Science of the Republic of Kazakhstan, remain working at the university as a research assistant or teacher, but there are also doctoral students - representatives of industrial enterprises from the management team who, in preparing their doctoral dissertation, carry out targeted research on the problems of their enterprise. And then, after protection, they introduce the developed method or technology into the existing production.

6. Can you explain if there are any mechanisms (internal or external) to guarantee quality assurance of Cycle 3 programs?

- at the end of each semester, doctoral students are certified; Provide an extended report on the implementation of the theoretical training program and on the intermediate results of their research in the form of presentations and answers to questions. Attestation is carried out in 2 stages - first at the meeting of the department, and then at the Scientific and Technical Council of the Higher School. During the attestation at the meeting of the department, scientific articles prepared for publication (their effectiveness, breadth of known literary references and their own research results) are reviewed and recommendations for their improvement are given. The results of scientific internships of doctoral candidates are also discussed at the meeting of the department.
- the distinctive feature of the theoretical training courses of doctoral studies is the inclusion in their content of the latest achievements in the field of the chemical technology of inorganic substances, which will allow the doctoral students to master modern knowledge in this field and apply them in the performance of a doctoral dissertation.

### 3.3 Interview with PhD students

#### Interview 1

1. What were the rationales for you to start a PhD in your country?

*Because I live here.*

2. Information about PhD programs:

- clear - yes
- easily accessible
- transparent

3. Do you feel you have enough support from your professors? From the academic staff?

Yes, everything what needed is done.



4. What are your expectations after your PhD?

Award of the degree and work in the industry.

5. What would you suggest to improve Doctorate studies in your university/country?

I'm satisfied with everything.

### **Interview 2**

1. What were the rationales for you to start a PhD in your country?

I wanted to receive a research degree.

2. Information about PhD programs:

- clear
- easily accessible - yes
- transparent

3. Do you feel you have enough support from your professors? From the academic staff?

Yes, all the teaching staff provides good teaching and consulting.

4. What are your expectations after your PhD?

Work in the university and become an Associate Professor

5. What would you suggest to improve Doctorate studies in your university/country?

To increase the amount of scholarship.

### **Interview 3**

1. What were the rationales for you to start a PhD in your country?

I decided to study on PhD program here because I live here.

2. Information about PhD programs:

- clear - yes
- easily accessible
- transparent

3. Do you feel you have enough support from your professors? From the academic staff?

The faculty provides consultations in enough scope.

4. What are your expectations after your PhD?

ОТВЕТ: After completing PhD, I plan to continue my research activity at the university.

5. What would you suggest to improve Doctorate studies in your university/country?

To increase state grant placements for PhD.

### **Interview 4**

1. What were the rationales for you to start a PhD in your country?

Because of a good level of education here.

2. Information about PhD programs:



- clear

- easily accessible
- transparent - yes

3. Do you feel you have enough support from your professors? From the academic staff?  
Yes

4. What are your expectations after your PhD?  
Thesis defense and work afterwards.

5. What would you suggest to improve Doctorate studies in your university/country?  
Improvement of the material and technical base of the university in order to conduct the necessary research here.

### **Interview 5**

1. What were the rationales for you to start a PhD in your country?  
Because I live in Kazakhstan.

2. Information about PhD programs:  
- clear - yes  
- easily accessible - yes  
- transparent - yes

3. Do you feel you have enough support from your professors? From the academic staff?  
Yes, there is enough support.

4. What are your expectations after your PhD?  
I will continue a career in the university.

5. What would you suggest to improve Doctorate studies in your university/country?  
First, to involve PhD students to research in the university. Second, decrease the period of studies. Third, decrease the tuition fee.

### **Interview 6**

1. What were the rationales for you to start a PhD in your country?  
To have a managerial position in a company.

2. Information about PhD programs:  
- clear - yes  
- easily accessible - yes  
- transparent

3. Do you feel you have enough support from your professors? From the academic staff?  
Yes, it's enough.

4. What are your expectations after your PhD?  
Promotion at work

5. What would you suggest to improve Doctorate studies in your university/country?



The purchase of equipment by the university, the access of doctoral students to it. Help in the publication of articles with impact factor. Reduce the three-step intermediate reporting on the performance of work.

### **Interview 7**

1. What were the rationales for you to start a PhD in your country?

I decided to apply to get a research degree.

2. Information about PhD programs:

- clear - yes
- easily accessible
- transparent

3. Do you feel you have enough support from your professors? From the academic staff?

Yes, there is a good support.

4. What are your expectations after your PhD?

To continue working in the university and have promotion.

5. What would you suggest to improve Doctorate studies in your university/country?

Nothing.

### **Interview 8**

1. What were the rationales for you to start a PhD in your country?

By specialty.

2. Information about PhD programs:

- clear - yes
- easily accessible
- transparent

3. Do you feel you have enough support from your professors? From the academic staff?

Yes, there is a good base.

4. What are your expectations after your PhD?

To continue work in the university.

5. What would you suggest to improve Doctorate studies in your university/country?

To enter PhD by specialty.

### **Interview 9**

1. What were the rationales for you to start a PhD in your country?

Ответ: Для получения большей информации и возможности обогащения знаниями.

2. Information about PhD programs:

- clear - yes
- easily accessible
- transparent



### 3. Do you feel you have enough support from your professors?

From the academic staff?

Support is quite on a high level.

### 4. What are your expectations after your PhD?

Further work in local executive bodies to lead to a positive change in the situation in the region.

### 5. What would you suggest to improve Doctorate studies in your university/country?

Would increase the duration of the internship in the domestic and foreign research institutes in order that the doctoral students were more developed when applying their developments in practice.

## 3.4 Interview with the socio-economic world (employers)

### Interview 1

#### 1. Is there a need for PhD graduates in your socio economic sector?

Yes, there is a need for graduates of PhD in phosphorus, thermal phosphoric acid and phosphoric salts. Doctors of sciences we need to conduct analytical work to identify bottlenecks in production and to conduct research to improve the work of shops.

#### 2. Are the PhD graduated well adapted to your needs?

Yes, they meet our requirements, because this doctoral program is coordinated with the management of our company - Kazfosfat LLP, and we know what knowledge graduates have.

When they come to work for us, we also additionally check them for qualification so that they confirm their level. Are you associated to Cycle 3 programs? 3. Would you like to be more involved in the training/research activities?

No, I do not participate in the training of doctoral students at the university. But it would be possible to participate not in the educational process, of course, but in carrying out doctoral research.

#### 4. Precise the positive and negative aspects of Cycle 3, from your perspective.

Positive aspects of the program - doctoral students carry out their thesis on topical problems of production of inorganic substances.

I cannot determine any negative aspects.

### Interview 2

#### 1. Is there a need for PhD graduates in your socio economic sector?

No, usually, doctoral students after the defense of the thesis do not come to us, we need specialists - graduates of Bachelor's and Master's programs.

#### 2. Are the PhD graduated well adapted to your needs?

Yes, they meet our requirements, because we have known for a long time the department on which they study, and the professors who teach them. And we know that they give good knowledge and practical skills.

#### 3. Would you like to be more involved in the training/research activities?

No, I do not participate in the training of doctoral candidates in disciplines, but we always accept doctoral students so that they can practice and internship and conduct their research on our equipment.

#### 4. Precise the positive and negative aspects of Cycle 3, from your perspective.

Positive aspects of the program - usually theses of doctoral candidates are related to the utilization of waste products of phosphorous plants, and the proposals that they bring to us for consideration have a rational grain, and we take them as an option to solve the environmental problems of our industries.

In my opinion, there are no negative aspects, only there can be a shortage of time for doctoral students to complete their studies within three years and defend their thesis.

### Interview 3



1. Is there a need for PhD graduates in your socio economic sector?

Yes, we would gladly hire a PhD, who would be engaged in technological development of productions, but so far we have not found PhD after defending the thesis.

2. Are the PhD graduated well adapted to your needs?

Yes, the graduates of the doctoral program meet our requirements, because they conduct their experiments during research practice, and we know what they have learned.

3. Would you like to be more involved in the training/research activities?

No, I do not participate in the training of doctoral students, but I could be a consultant in conducting scientific work.

4. Precise the positive and negative aspects of Cycle 3, from your perspective.

Positive aspects of the program-theses of doctoral dissertations are always relevant and always these works end with at least experienced tests of the proposed new technology or a new technological regime of one stage of production.

There are no negative aspects.



## Annex 3

### Chapter 3.

#### 3.2 Self-evaluation of doctorate programs

##### *Case of KAZGUU*

##### IQA or EQA best practices

1. As a suggestion, in order to ensure objective and rigorous EQA mechanism of local PhD programs, it is possible to build partnership with a foreign university that will consult on research, academic, and organizational issues and evaluate the university's progress. Such cooperation should be a long-term partnership (at least 3 years);
2. In regard to cotutelles, we would like to suggest providing local universities with an opportunity to choose a foreign co-supervisor from any foreign university. In other words, the main criterion in appointing such a co-supervisor must be his/her knowledge of the field/expertise;
3. Increase the duration of PhD program till 4 years;
4. Provide funding for attending international conferences and summer schools for emerging researchers (once a year, but not more than three within the whole period of study).

##### *Case of SKSU*

Evaluation of the correspondence of the educational program of the SKSU to the ESG standards (1 part) was carried out using the example of the doctoral program "Production of building materials, products and structures".

##### **1.1. Politics in the field of quality assurance**

The SKSU has developed the procedures for a quality management system for the management of educational, scientific and extracurricular activities: the organization of the educational process and the conduct of examinations, professional practice, scientific internship, academic mobility, etc. (see § 3.1). A code of corporate ethics has been developed that defines the basic ethical rules for the behavior of employees and students. Together, all these documents form the academic policy of the university, aimed at ensuring the quality of doctoral educational programs. The quality assurance policy is coordinated with the University Supervisory Board and is implemented at all levels of management (university, faculties, departments).

The implementation of the quality policy criteria for educational programs is ensured through the participation of all university staff, trainees and other interested parties in achieving their goals.



In addition, there are requirements for the head of the doctoral candidate: the presence of a doctoral degree / Ph.D. in relevant specialties or a doctor in the field of specific fields of science; academic title of professor; active work in this field of knowledge and experience in the scientific management of PhD doctoral theses. The supervisor of PhD theses must have at least 10 publications on the direction of doctoral studies in rating international journals with a high impact factor.

S (strength)	W (weakness)
<p>The LA of the program are developed on the basis of the Dublin descriptors.</p> <ul style="list-style-type: none"> <li>-High degree of integration of the educational program into the regional labor market.</li> <li>-Effective cooperation with scientific, educational, including research universities of the region and foreign partners.</li> </ul>	<ul style="list-style-type: none"> <li>- The lack of documented procedures for the relationship between the leader and the doctoral student.</li> </ul>
O (opportunity)	T (threat)
<ul style="list-style-type: none"> <li>-Intensive development of construction industry enterprises of the Republic of Kazakhstan</li> <li>- development of documented procedures for the relationship between the leader and the doctoral student.</li> </ul>	<ul style="list-style-type: none"> <li>-Competition in the provision of educational services in the specialty "Production of building materials, products and structures"</li> </ul>

### **SWOT of the Politics in the field of quality assurance**

The policy is translated into practice through a variety of internal quality assurance processes that facilitate the participation of all units of the higher education institution. How the implementation, monitoring and adjustment of the quality policy is carried out, the university itself decides.

The quality assurance policy also covers any elements of the activity of the educational institution that are subcontracted or carried out by other parties.

### **1.2 Development and approval of programs**

The development of the study program is carried out according to the methodical recommendations. SKSU develops modular PhD study programs (MSP) on the basis of a competence approach.

The development of MSP takes into account the interests of stakeholders; The development of MSP takes the part the interests of teachers and students. After the development of the MSP, it is mandatory that external expertise be conducted by leading employers. After receiving a positive examination, the MSP is considered at a meeting of the chair, the academic council of the higher school and approved by the Academic Council of the University. With the established periodicity, the efficiency of the developed MSP is evaluated.

The aims of the PhD studies programs correspond to the 8th level of the National Qualifications Framework of the Republic of Kazakhstan, they are also harmonized with the Dublin descriptors, the 3rd cycle of the European Higher Education Area (A Framework for Qualifications of the European Higher Education Area), and the 8th level of the European qualification framework for education throughout the life (The European Qualifications Framework for Lifelong Learning).

Educational programs of doctoral studies are developed in accordance with the mission of the University "Formation of the intellectual elite of the country on the basis of generating new knowledge and transforming the university into an entrepreneurial university".



The aims and results of the training, using the example of the doctoral program "Technology and design of textile materials", are given in Table 1.

The PhD study program "Production of building materials, products and structures" includes 2 trajectories:

- Production of concrete and ceramic building materials;
- Manufacture of wall and finishing building materials.

Each trajectory consists of 4 modules, including the disciplines of the compulsory component and components of choice, practice, the research work of the doctoral candidate, the completion of a doctoral thesis, a comprehensive examination in the specialty, design and defense of the thesis.

### SWOT of the Development and approval of programs

S (strength)	W (weakness)
modular-competence approach to the formation and development of the content of the MSP. - modules and disciplines of the educational program correspond to the formed competencies and logical sequence of the study of disciplines; - the content of educational programs is built on the basis of modern requirements for specialists in the construction industry; - The catalog of elective disciplines is coordinated with employers and provides electivity of disciplines (2 alternatives); - graduate works of doctoral students are aimed at solving real scientific and production and technological problems, which contributes to the solution of actual practical problems of the construction industry;	absence of international double degree programs on specialty with other universities
O (opportunity)	T (threat)
-attraction to the educational process and scientific management of leading teachers of foreign universities - Internship in foreign universities	- The decline in the construction industry led to an extremely low level of effective demand for highly skilled young people, innovative developments and products, high-quality additional education and further training

### 1.3. Student-centered teaching

In the implementation of student-centered teaching and teaching institutions of higher learning should provide:

#### A) respect and attention to the different groups of students, and their needs;

Doctoral students, specializing in 6D073000 -Production of building materials, products and structures are the main consumers of the educational program for this specialty. When implementing the educational process, the needs of different groups of doctoral candidates are taken into account: foreign citizens, women with young children, people with disabilities and socially unprotected students. The system of social support for students, developed by the university, is able to react quickly to the dangers of the external environment, connected with the deterioration of the economic situation and the decrease in the population's solvency. The university practices a flexible payment schedule for training, provides discounts to socially unprotected people and promotes the transfer of excellent students to state educational grants.



**B) providing flexible learning paths; The content of the educational process in the doctoral program, the planning of all types of training sessions and practices for the entire period of training are reflected in the following curriculum forms: a typical curriculum, an individual curriculum of the doctoral candidate, a work curriculum, and also an individual plan for the doctoral student.**

Teachers of the University before the beginning of the next academic year give the doctoral students a short course annotation: the place and role of the course in the specialty program, goals, objectives and novelty of the course, as well as methods and forms of training. In the course of mastering the educational program, doctoral students determine the individual trajectory of training. For this purpose, under the guidance of the adviser, an individual curriculum (IUP) is compiled. At the same time, they are given the independence of the choice of disciplines from the catalog of elective disciplines (QED) and teachers.

While ensuring the quality of the educational process, the educational interests and needs of the doctoral candidate are at the forefront.

**C) the use of various pedagogical methods and forms of instruction that ensure the student's active position in the independent acquisition of knowledge and necessary competences, a departure from the position of the teacher's transfer of knowledge in the "finished form";**

In the SKSU the teaching staff uses a variety of pedagogical methods. The main task of the university at the present stage is the training of specialists who are able to respond flexibly and in a timely manner to changes that occur in the world. Therefore, in order to prepare doctoral candidates for scientific, pedagogical and professional activities at the university, along with traditional forms of teaching innovative methods of teaching are used: Problem training, providing for the formation of skills for solving problematic problems that do not have an unambiguous answer, independent work on the material and the development of skills to apply the acquired knowledge in practice;

Active teaching methods, the essence of which is that the doctoral students independently master professional skills and skills, develop their creative and communicative abilities, and form a personal approach to the emerging problem. Interactive training is widely used, which is aimed at active and profound mastering of the studied material, development of the ability to solve complex problems.

One of the promising methods used in the implementation of educational programs is "contextual learning," where the motivation for mastering knowledge is achieved by building relationships between concrete knowledge and its application. Equally important is "learning based on experience," when doctoral students have the opportunity to associate their own life practice with science. A problem-oriented approach to learning has been introduced, which allows to focus the attention of doctoral students on the analysis and resolution of any particular problem situation, which becomes the starting point in the learning process. In this case, it is important not only to solve the problem, how to correctly put it and formulate it. The problem situation prompts the doctoral students to consciously obtain the knowledge necessary to solve the problem. The interdisciplinary approach to learning stimulates doctoral students to independently "extract" knowledge from different fields, group them and concentrate in the context of the specific task being solved.

The use of various pedagogical methods and forms of education contributes to the personal and professional growth of doctoral students, the ability to organize themselves, cooperate with other doctoral students, control their academic achievements, ability to work in a team with other students and teachers, incl. In groups and subgroups in lecture and practical classes, when working in projects, writing a thesis. Doctoral students show their individuality, creativity, participating in university and interuniversity events.

To show their individuality, the educator can, through the choice of scientific interests of the doctoral candidate,

In parallel, the doctoral student is provided with the necessary guidance and support from the teachers of the disciplines, the head of the dissertation topic, the head of the department and the teaching and support staff.



**G) the manifestation of mutual respect and cooperation in the relationship.**

**"student-teacher"**

Much attention is paid to the issues of mutual respect between students and teachers. Approved by the Academic Council of the University (prot. No. 3 of 19.10.2011), "The Code of Corporate Ethics-Rules of Internal Order of SKSU regulates the principles of the relationship of the university staff.

<b>S (strength)</b>	<b>W (weakness)</b>
<ul style="list-style-type: none"> <li>-ensuring the quality of the learning process, first of all, its interests are taken into account and the training is student-centered.</li> <li>- the results of doctoral studies reflect the effectiveness of the organization of student-centered training.</li> <li>- high level of awareness of doctoral students;</li> <li>- providing flexible learning paths;</li> <li>-the availability of an electronic database on the academic achievements of each doctoral student;</li> </ul>	<ul style="list-style-type: none"> <li>- profiling disciplines are not taught in English</li> </ul>
<b>O (opportunity)</b>	<b>T (threat)</b>
<ul style="list-style-type: none"> <li>- development of the EP takes place with the participation of employers</li> <li>- the application of innovative teaching methods.</li> <li>- Internship in foreign universities</li> </ul>	<ul style="list-style-type: none"> <li>attachment of educational programs to the state general educational standard</li> </ul>

**SWOT of the Student-centered teaching**

**1.4 Admission of students, academic achievement, recognition and certification**

**Rules for admission to doctoral studies**

The conditions for admission to doctoral studies are determined by the relevant government regulations (Standard Rules for Admission to Education in Education Organizations Implementing Professional Higher Education Education Programs approved by Government Decree No. 111 of January 19, 2012). The conditions for admission to study by doctoral programs are developed and approved by the university.

According to the rules of the University "Rules for Admission to the University", admission of citizens to a doctorate in accordance with the state educational order is carried out on a competitive basis based on the results of the entrance examinations.

For the period of entrance examinations and admission to doctoral studies, the University creates: a selection committee, examinations commissions on specialties and appellate commissions. The admissions committee includes: Rector of the University, doctors, candidates of sciences in the specialty profile. Examination commissions on specialties are formed from the number of highly qualified scientists of the relevant specialties of the University, consisting of a chairman and three members, two of whom must be doctors of science, the remaining members of the commission may be candidates of science in the specialty profile.

Entrance examinations in a foreign language are conducted by the National Testing in the form of testing in one of the foreign languages in the amount of programs established for graduates of universities.

Priority in the course of the competition is the results of knowledge in the specialty and foreign language. In the case of the same indicators of competitive scores, citizens who have the highest grade



in the specialty, in foreign, Kazakh and Russian languages receive a preferential right upon enrollment on a 100-point scale of assessments. Then scientific achievements corresponding to the profile of the chosen specialty are taken into account.

The procedure for admission to the doctoral program: passing the entrance examinations (a foreign language, in special disciplines), take place within 10 days. The final decision of the admissions commissions is made after consideration of passed entrance examinations.

The student who does not agree with the result of the examination has the right to appeal to the chairman of the Appeal Commission of the University - the pro-rector for educational activities on the day of the announcement of the results, indicating the discipline with a description of the issue requiring commission consideration.

### **Availability in the institution of the orientation procedure for first-year doctoral students**

The University provides a reference guidebook for 1 course of doctoral students, which reflects: the internal regulations, the mode of operation of all services, information on the heads of departments and the department of postgraduate education, the procedure for payment for tuition, the criteria for evaluating learning outcomes, information about educational courses, telephone directory . In the handbook there is also other information for the freshman - a doctoral student: the availability of services, dormitories, canteens, a medical center, gyms, a computer center, libraries and research centers.

Doctoral students who entered the first year of doctoral studies at the beginning of the academic year at the meeting of the graduating department get acquainted with the faculty, the head, and are provided with

educational and methodological documentation and receive information about the schedule of the educational process and the features of training in doctoral studies. The chair appoints an adviser for postgraduate education, who accompanies and oversees the educational process of the doctoral student. On the basis of the Center for Post-Graduate Education (CPIC), meetings are held where all the necessary information is sent to doctoral students. In addition, all the necessary information is available on the university's website.

At the first lessons for each discipline, students are informed about the used assessment strategy of their knowledge, what examinations and other types of control they will have to undergo, and what criteria for evaluating their responses will be applied. To do this, they get acquainted with the syllabus, the calendar schedule for the execution of the control, the assignment and the policy of the course, where all the procedures for assessing their knowledge are clearly spelled out.

Availability of opportunities for rapid adaptation of students from other universities, who came in the exchange procedure, to the conditions of the university, the conditions of study

To quickly adapt to the conditions of the university, who came to the internship of doctoral students from other universities, they are attached to the head, who oversees the teaching process of the doctoral student, living conditions, etc.

### **Availability of electronic base of students**

The Department of Traffic Accounting for Trainees and Administrators at the PR tracks the electronic base of the ISMWS, which provides an electronic database of the doctoral contingent for the types of educational programs and their statistics on academic performance.

Presence in the institution of monitoring progress and achievements of students in the evaluation of educational results, the implementation and protection of diploma papers and projects, master's and doctoral dissertations



The university practices monitoring and monitoring of academic achievement, achievements of doctoral students in the evaluation of educational results.

Monitoring of current academic progress involves assessing the progress of doctoral students in lecture and practical classes, colloquiums, independent work and monitoring activities. An analysis of the current progress of doctoral students is carried out through a rating system. The main parameters of the doctoral candidates' rating are the results of the current, boundary control and final certification, which takes the form of a comprehensive exam. Within the framework of monitoring the current academic performance, the professional progress of doctoral students is analyzed, which are obliged in the course of training to confirm the theoretical knowledge gained in practice. Monitoring of the quality of professional competencies acquired by doctoral candidates is carried out as part of their pedagogical practice. Based on the monitoring results of current academic progress, a decision is made to transfer doctoral students from the course to the course.

Monitoring of the final certification involves evaluating the effectiveness of monitoring the current performance of doctoral candidates at different stages of training. In accordance with the requirements of state educational standards, the doctoral candidate of the final course is required to pass a state examination in core disciplines and to defend his doctoral dissertation. Monitoring the quality of teaching disciplines involves evaluating the methodological level of a particular teacher within the framework of control visits by internal experts from among the leading professors and professors. Monitoring of the satisfaction of doctoral candidates and employers requires their assessment of the quality of education and training of specialists through questionnaires. Monitoring of the professional progress of teachers involves an assessment of the professional growth of teachers and the degree of their compliance with the positions held. In addition to the internal evaluation, the educational program is evaluated in the framework of independent accreditation.

Provision of doctoral candidates with documents with information on the awarded qualification, including the results of training

At the end of the entire course of studies, doctoral students pass a state qualification exam in the major disciplines and defend the thesis. After the successful defense of the dissertation work, the attestation case of the doctoral candidate is sent to the Committee for Control in the sphere of education and science within thirty calendar days and after approval of the results of the defense at the meeting the student receives a Ph.D. The doctoral students receive a transcript where the results of the training are reflected, including information on the professional practice, final certification, performance and protection of the thesis (name, number of credits, letter rating, in balls, in percent, traditional), total number of credits, weighted average GPA score. The Diploma Supplement (transcript) is completed in three languages: Kazakh, Russian, English.

**Availability of the practice of recognition of qualifications of higher education, periods of study and prior training**

Recognition of foreign documents on education is carried out in accordance with the Law of the Republic of Kazakhstan of December 13, 1997 "On the Ratification of the Convention on the Recognition of Qualifications concerning Higher Education in the European Region (Lisbon Convention).

**SWOT of the Admission of students**

S (strength)	W (weakness)
-the presence of clearly formulated Rules for the admission of entrants to SKSU -Profi-orientation work on the selection of "their" entrant, who consciously chose an educational program	- insufficient number of doctoral students



<ul style="list-style-type: none"> <li>- important components for ensuring the progress and mobility of doctoral students are the recognition of higher education qualifications, periods of study and prior training, including recognition of informal and informal learning</li> <li>-provision of graduates of the university with the application to the diploma in accordance with European requirements (Diploma Supplement)</li> </ul>	
O (opportunity)	T (threat)
<ul style="list-style-type: none"> <li>- attraction to the management of dissertational works of employers;</li> <li>-increase marketing and career-oriented activities ;.</li> </ul>	<ul style="list-style-type: none"> <li>- reduction of the number of state educational grants</li> <li>- Increasing competition in the market of educational and innovative services</li> </ul>

### 1.5 Teaching staff

Recruitment and placement of personnel is carried out on a competitive basis in accordance with the "Rules for Competitive Substitution of PPP Positions and Scientific Workers of Higher Educational Establishments" approved by Order No. 230 of the MoES of the Republic of Kazakhstan dated April 23, 2015, Procedures "Personnel Management" SKSU PR 6.02-2015 , introduced by the order of the rector. The university has a competitive commission to consider candidacies for filling vacant posts of faculty and researchers.

Preparation of doctors PhD on the OP "Manufacture of building materials, products and designs" is carried out by 3 doctors and 6 candidates of sciences. The education of teachers corresponds to all the profile areas of the curriculum of the program. Practical work experience at the enterprises for the production of building materials, in design and scientific organizations have 6 teachers, the rest have passed the advanced training courses at the advanced enterprises for the production of modern building materials.

The competence of teachers by the administration of the university is assessed by the quality of teaching when conducting open classes, mutual visits by teachers, questioning of students and colleagues.

Teachers take part in seminars, trainings and master classes to improve the quality of education and improve the educational program. So, for five years the teachers took part in 12 activities for professional development (Table).

Most of the classes are conducted using problem training, the methodology of collective learning sessions with the creation of a situation of mutual learning (the entire teaching staff of the department); project technologies (AutoCad, MathCad, APM Winmash), which presuppose the modeling of processes, activities (Suzev NA, senior lecturer Kambarov MA, associate professor Shukenov II); technology of supporting abstracts (Prof. Akhmetov AR, associate professor Kalshabekova EN, professor Ismailov AA); the organization of interdisciplinary relations (the entire teaching staff of the department); ICT: presentations of lectures and laboratory exercises, demonstration of a virtual laboratory and use of interactive whiteboard resources (the entire faculty of the department).

Training in doctoral students is carried out through their active participation in the implementation of scientific-research state budget, and funded grant work and work on the thesis topic.

The state budgetary subject of research is related to the increase of the thermal insulation properties of cellular concrete in enclosing products and structures (Akhmetov AR, Kopzhasarov B.T.), research of local raw materials and technogenic wastes as components for obtaining finishing materials (Ismailov



AA, Kalshabekova E .N.), Research of raw materials SKO for concrete and reinforced concrete in road construction (Suzev NA, Shukenov II)

For 5 years teachers of the department carried out funded research work and work on orders of enterprises worth more than 21 million KZT. Funded R & D was carried out on the topics of obtaining plasticizing additives for concrete on the basis of waste from the oil and fat industry (Baibulekov AB), improving the physical and technical properties of cellular concrete on the basis of local raw materials and industrial wastes (Kopzhasarov B.T.), technologies of non-firing binders and concretes on their basis (Sarsenbaev B.K.), the production of high-strength concrete on raw materials of the South Kazakhstan region (Suzev NA), the development of technology of fine-grained concrete based on industrial waste and local raw materials (AND Mailov AA)

The SKSU provides an opportunity for teachers to improve their qualifications by participating in state and international programs (Bolashak, etc.).

- Internship in the framework of multilateral cooperation of SKSU with leading industrial enterprises and research institutes;
- training in courses and seminars for advanced training;
- participation in international programs.

### SWOT of the Teaching staff

S (strength)	W (weakness)
<ul style="list-style-type: none"> <li>- high scientific and pedagogical level of teaching staff</li> <li>- the presence of doctoral and magistracy, which provides the possibility of training highly qualified personnel</li> <li>- the presence of a laboratory that allows research and contractual work to be carried out on orders of enterprises that promote an increase in the scientific and methodological level of teaching staff and the quality of teaching.</li> </ul>	<ul style="list-style-type: none"> <li>- poor knowledge of the teaching staff of the department implementing the educational program of foreign languages, which makes it difficult to improve their qualifications abroad and create academic groups with the English language of instruction</li> </ul>
O (opportunity)	T (threat)
<ul style="list-style-type: none"> <li>- the possibility of improving the educational program of doctoral studies PHD</li> <li>-the presence in the university of conditions for the mobility of teachers, advanced training and exchange of experience in other universities in Kazakhstan and abroad</li> </ul>	<ul style="list-style-type: none"> <li>- Inadequate material motivation for keeping young teachers in the staff of the teaching staff and attracting graduates to the university.</li> </ul>

### 1.6 Learning resources and student support system

The material and technical base of the department is currently formed by the training laboratory "Testing of building materials, products and structures", in which a crane-beam with a payload capacity of 3.2 tons for lifting and transporting building materials and products, a steaming chamber, a concrete mixer, a hydraulic press, . In addition, there are specialized laboratories for the discipline "Autoclave materials", "Technology fillers of concrete." To carry out scientific research of doctoral students, specialized classrooms and classrooms have been created, which are equipped with modern technical training aids. All computer classes are equipped with new generation computers, integrated into a local network and connected to the Internet, which all doctoral students use for free and without



time limits. The department is equipped with computers, printers, audio-video equipment. For the classes there are interactive boards, multimedia projectors, panoramic screens. The doctoral students of the department actively participate in the research work of the university, for this the university has a sufficient material base, which consists of a set of different research laboratories.

Classrooms for the teaching staff, staff, affordable modern equipment contribute to the maintenance of the objectives of educational programs, the expected results of training doctoral students and provide an atmosphere conducive to learning.

Auditor fund, and these are lecture halls, seminar audiences, laboratory rooms, jobs for doctoral students, as well as tools, tools and equipment, modern instrument base, meet the requirements of the implemented educational program. For all requirements and indicators, such as illumination, acoustics, temperature, technical equipment, environmental and aesthetic indicators of the audience correspond to sanitary and epidemiological norms and rules.

The educational, UML and scientific literature on specialty 6D073000 "Production of building materials, products and structures" - is 4440 copies. documents. Including in the state language -2100 copies.

Table 2. Update of the library fund for 2016. on specialty 6D073000 "Production of building materials, products and structures"

Years	Total number of educational literature	Receipt in a year	%	Total number of educational literature / kaz	Receipt in a year/kaz	%
2016	4440	270	6	2100	120	5,7
2015	3573	867	24,2	1891	209	11
2014	2939	634	21,5	1577	314	20
2013	2220	719	32,3	903	674	74
2012	1750	470	26,8	642	261	40

#### Availability of information databases

The library and information complex of the University unites 5 electronic resource centers (ERC) with a total capacity of 200 seats. For users of SKSSU, on-line access to foreign full-text multidisciplinary databases is available: SpringerLink, Scopus, Plenipotentiary, Thomson Reuters ISI Web of Knowledge, ScienceDirect, EBSCO, to Kazakhstan databases: KazPatent ", " RK Standards ", " Digital Library for Human Rights ", " Zan ", " RMEB ". In 2017, we provided test access to international databases: Lan, Biblioborussika, EBS IPRbooks, ProQuest Dissertation & Theses Global.

The database of own generation is being filled: "Proceedings of the faculty of the SKSU "Electronic archive".

Student information and educational portal portal "Professor" is designed to provide information for students about the educational process in SKSU. Thanks to an effective search system, it is possible to obtain information relating personally to the student, such as the schedule of classes, the schedule of exams for semesters, academic achievement, the current-semester of the current semester, and in general for the university (data on faculties, teachers, etc.).



University Websites:

- the main information site of the university ukgu.kz;
- site of the educational and information center lib.ukgu.kz;
- The site of the Center for Academic Mobility and the Bologna Process - mobility.ukgu.kz;
- web resource of international scientific conferences with the function of registration and acceptance of articles from all interested persons icite.ukgu.kz.
- site of the International Scientific Journal "Industrial technology and engineering" - ite.ukgu.kz.

**SWOT of the Learning resources and student support system**

S (strength)	W (weakness)
<ul style="list-style-type: none"> <li>- high qualification of the personnel;</li> <li>- a constantly updated material and technical base for the implementation of the educational program.</li> <li>-a sufficient library fund for the disciplines of the educational program;</li> <li>-programming, updating, maintenance of computer equipment</li> </ul>	<ul style="list-style-type: none"> <li>- availability of equipment with a high degree of wear</li> <li>- Instability of the provisions regarding the strategic directions of the development of education.</li> </ul>
O (opportunity)	T (threat)
<ul style="list-style-type: none"> <li>- conditions for increasing the educational and intellectual level of doctoral students (library fund, research laboratories, etc.);</li> <li>the possibility of using the production base of employers.</li> </ul>	<ul style="list-style-type: none"> <li>- toughening of competition in the sphere of education;</li> <li>- strengthening the position of competitors.</li> </ul>

**1.7 Information Management**

Updating the content of programs is carried out regularly with a view to their aggregate satisfaction to the needs of interested parties. Data collection and analysis is carried out by the method of integrated information management.

The procedure for evaluating and revising educational programs is described in the methodical instruction for compiling a modular educational program. The collection of information for analysis is carried out within the overall monitoring of the institution.

In general, the evaluation of educational programs for relevance, content and effectiveness is based on 2 indicators:

- statistical data on admission, academic performance and employment;
- expert assessment of employers, experts from the industry, students and specialists of the university.

Also, the university applies the practice of analyzing the market of the current specialty. The revision and updating of curricula is carried out in accordance with the strategic plan of the university.

The monitoring of the quality of the educational program is carried out by the services of the university: the department, the dean's office, the methodological commission of the faculty, the UMS, the UMU, the University of the University. Important measures aimed at improving the quality of educational programs are:

- use and alternation of various teaching technologies in the learning process;



- questioning of students "Satisfaction of the learning process by the quality of the organization" a;
- revision and constant updating of the contents of disciplines / modules;
- introduction of R & D elements in the performance of independent work;
- the acquisition of a new literature by the university.

Measures taken to control and improve the level of teaching and implementation of educational programs:

- mutual attendance by the teachers of the department;
- Open classes
- planned, as well as unplanned increase of qualification of the faculty of the faculty;
- holding open meetings of UMS dedicated to the development of teaching skills and introduction of modern teaching technologies;
- exchange of experience with foreign colleagues through an invitation to the university.

### **1.8 Public awareness**

Information about the modular educational program is available to every specialty trainee through the educational portal ([www.portal.ukgu.kz](http://www.portal.ukgu.kz)), most of the tabs are created in Kazakh, Russian, English languages with modern navigation. The portal includes information on the history of the university, the mission, the University's Strategic Development Plan, the Quality Policy, the Code of Ethics, information on collegial bodies, structural departments and faculties, teachers, university competitions, international projects, academic mobility programs, and portals. On the site there are sections "Applicant", "Magistrant", "Doctoral student", "Graduate", "Employer", "Dissertational council", "Public procurement".

Doctoral students have the opportunity to receive and exchange information quickly with libraries and educational organizations.

Information about the modular educational program is posted on the university's educational portal ([www.portal.ukgu.kz](http://www.portal.ukgu.kz)) and the information stand of the Office Registrar.

Information about the teachers who provide training on the OP is available on the website [www.ukgu.kz](http://www.ukgu.kz).

Regularly published in the media and on the university's website: the organization and monitoring of the employment of young professionals; analysis of labor market development trends; creation and support of information resources of professional career and employment; establishing and maintaining direct contacts with potential employers; carrying out of trainings and seminars among graduates on training to skills of successful employment.

The chair "TCMIK" actively promotes the goals, tools and expected results of the OP through speeches on TV channels, newspapers and magazines in the provincial, city and republican scales. Over the past 3 years, 2 appearances on TV, 5 articles have been published on newspapers and magazines.

Numerous letters are sent to the university, indicating the needs of specialists from various scientific, design organizations, educational institutions and companies, and requests to send graduates to the university. All information from enterprises is brought to the attention of graduates and is posted on the university's website.



### 1.10 Periodic external quality assurance

Every 5 years the educational program passes specialized accreditation. In June 2017, the educational program was accredited for a period of 5 years in the Independent Kazakhstan Agency for Quality Assurance in Education ([www.iqaa.kz](http://www.iqaa.kz))