

ACADEMIC MOBILITY AS AN IMPROVING LANGUAGE COMPETENCE FACTOR OF TEACHERS AND STUDENTS

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Abstract: The relevance of the study is due to the fact that the state's recognition of the positive effects of the international experience of researchers for their development and the progress of domestic science includes a set of measures to support the mobility of scientific personnel. An important role is assigned to the development of scientific diplomacy, the formation of the institute of ambassadors of Ukrainian science, the implementation of exchange programs of researchers between different countries. Another direction of support is related to the creation in Ukraine of international objects of digital and innovative technological infrastructure — technoparks, technological platforms, engineering centers, etc. Special attention is paid to the creation of global centers for conducting promising international research, projects involving leading world scientists and talented youth from Ukraine and other countries. In the theoretical part of the proposed work, the available scientific intelligence related to the problems of academic mobility in the world and in Ukraine is analyzed. In the practical part, an attempt was made to create and analyze the training course "Foreign language for academic mobility". It has been proven that the country's current risks are caused by the state of war, the reduction of opportunities to attract foreign specialists, support scientific contacts with foreign scientists, and the implementation of international mobility require a review of the state policy in the field of scientific personnel in order to reduce the risks of the outflow of talented young people and globally competitive researchers abroad, and as well as increasing the attractiveness of work in Ukraine for foreign specialists. A solution to the specified problem is proposed, namely, the forced formation of a large-scale and integral support system for scientists. In order to increase the attractiveness of a scientific career for young people and prevent their outflow abroad, it is proposed to implement integrated training programs, with additional stimulation of scientific management, already after the completion of the master's degree. It was concluded that it is important to retain the core of leading scientists who work in Ukraine and have world-class achievements. It is possible to implement this by developing a special budget co-financing program for the remuneration fund of globally competitive Ukrainian scientists, creating all the necessary conditions.

Keywords: Academic mobility, language competence, professional competence, integration, integrated educational courses.

1 Introduction

The key resource for the development of science is scientists, highly qualified specialists who participate in scientific research and contribute to the creation of new knowledge. The qualification of this category of personnel engaged in research and development is dynamic: research activity requires constant development of professional competences and updating of the methodological and instrumental apparatus of science.

Scientists receive support and improvement of their qualifications with the help of various practices - from generally accepted and necessary reading of scientific literature, attendance at conferences and other events to internships, participation in joint projects with colleagues from other divisions, organizations, countries, within the framework of which there is an intensive exchange of knowledge and experience. Some of these practices are related to going abroad, including for training, internship, and work.

For a long period of time in Ukraine, the attitude towards the international mobility of scientific personnel remained wary due to the association with the massive outflow of intellectual resources of the early 1990s. Taking into account this historical fact, this process was perceived as a threat to the scientific potential of the country.

In the 2000s, the public discourse in this area was noticeably transformed: international collaborations at the institutional and individual levels became part of the new normality of world science, the current stage of development of which is characterized by the search for answers to global challenges, the implementation of large-scale mega-science projects, the formation of an international research and development infrastructure, strengthening the role of digital technologies. The science and technology policy of Ukraine was faced with important tasks - to

attract the world's best intellectual resources, talented youth, to create conditions for increasing the attractiveness of a scientific career in our country, and to retain personnel. A number of measures taken by the state led to positive changes in domestic science, including a change in the structure of international migration of scientists: short-term mobility, which involves the return of a scientist to the country with new knowledge and competencies after a stay abroad, is gaining great popularity.

Brain drain has given way to brain circulation. Digitization creates the conditions for new forms of international academic mobility: opportunities for remote work and part-time employment allow an increasing number of researchers and teachers of higher education to have multiple affiliations, work in foreign organizations and be part of international teams, physically staying in their native country. This type of mobility is usually called synchronous.

The purpose of the article is a diachronic and synchronic analysis of the features of academic mobility for scientists of all levels, as well as a proposal to implement a thematic training course in a foreign language as a factor in improving the language competence of teachers and students.

2 Materials

The academic mobility of scientists at various levels is an important object of attention not only in the research of science and scientific communities, but also in the science and technology policy of developed countries. Since the 1960s and for a long period, the analysis of trends in this field was carried out from the standpoint of the concept of "brain drain", which assumed that the "sending" country (the scientist's country of departure, the donor country) experiences only negative consequences of the migration process, losing the most active and educated part of the population.

A number of scientific works are devoted to this problem. All the positive effects, namely the influx of highly qualified personnel, go to the receiving party. Within the framework of the concept of "brain circulation", researchers predict that both sides (both the donor country and the acceptor country) can receive benefits, primarily due to the flows of return and pendulum migration. Losses from those who left the country can be compensated by foreign specialists involved, and the return of scientists who have gained professional experience abroad is a valuable channel for the transfer of new knowledge and technologies into national innovation systems (Ackers, 2008; Adams & Loach, 2015), (Daugeliene & Marcinkeviciene R, 2009).

The positive effects of the international mobility of scientific personnel are also described within the framework of the network approach ("brain networking"), which emphasizes that in the modern globalized and digital world, the actual location of a scientist is no longer a key factor in determining who owns the results of intellectual work. Representatives of this approach refuse to consider the emigration of scientists as an unambiguous loss for their country: contacts in foreign countries are an important way of establishing and supporting international scientific collaboration, integration of national science into the world agenda (Bozeman & Corley, 2004), (Aksnes et al., 2013).

The assessment of the international mobility of scientists as a functional phenomenon, that is, the stimulation and provision of equal access to research infrastructure (De Filippo et al., 2009; Franzoni et al., 2015; Edler et al., 2011; Godfrey, 1970). However, this phenomenon can cause serious damage to the scientific and technical potential of individual countries, especially in the case of mass emigration of scientists and teachers of higher education who do not plan to return. Research on the individual level of international mobility and its positive impact (Grubel & Scott, 1966), deserve special attention.

According to scientists, the experience of studying or working abroad contributes to the development of research projects and

professional connections, the mastering of new theoretical and empirical approaches, strengthens involvement in the process of exchanging knowledge and technologies both with other countries and within one's own country. However, mobility does not guarantee advantages over a long time horizon: the positive effect is observed mainly at the early stages of a scientific career (Lawson & Shibayama, 2015; Jonkers, 2010; Horta et al., 2019; Halevi et al., 2016; Deville et al., 2014).

Estimates are known that "mobile" (i.e., those with experience of international mobility) researchers demonstrate higher publication activity, but the empirical evidence on this is contradictory. Most studies do confirm that such scientists are more productive (Fontes et al., 2013; Gao & Liu, 2021; Geuna, 2015; Gläser et al., 2014).

Studies that analyze the foreign experience of academic mobility on the example of certain countries are of interest, namely Gokhberg et al. (2016), Guo and Lei (2020), Horta and Yonezawa (2013), Jonkers and Tijssen (2008), Kim (2010), Kosmulski (2015), Lei and Guo (2020), Martinez & Sá (2020) etc.

3 Methods

In the theoretical part of the proposed work, the following general scientific research methods were used to ensure a comprehensive and systematic approach to the analysis of academic mobility issues: the method of deduction, which allowed for the formulation of general conclusions based on specific facts and observations on the effectiveness of students' preparation for academic mobility, and the method of induction to form patterns based on the knowledge gained and the results of learning in the context of international interaction. To study the functionality of academic mobility in the context of improving the competencies of teachers and students, analytical and synthetic methods were used to analyze statistical data on the impact of its individual aspects on the development of linguistic, academic and personal components of students' communicative competence. In addition, using the method of comparative analysis, the article identifies the peculiarities of student training in different educational systems and cultural contexts, as well as their impact on the development of academic mobility. In order to conduct our own research, a sociological survey methodology was employed among 52 students in the 2nd–3rd years of Ternopil National Polytechnic University named after Ivan Pulyu. The outcomes of the study were interpreted by utilizing the computation of weighted averages and percentage ratios of grades in the Excel program. The discussion part uses an adaptive case study approach to identify best practices that can be implemented in Ukraine in the future, and based on the obtained directions, the risks associated with the war and foreign policy issues are studied by the method of observation, assessing their impact on the outflow of scientific talent.

4 Results

The communicative strategy involves solving the following tasks during the preparation of students for academic mobility:

- mastering the appropriate conceptual apparatus, which will allow students to get acquainted with the specifics of international communication in the structure of a scientific educational institution (studying the structure of the education system, getting to know the names of academic degrees, features of professional qualifications, admission requirements);
- mastering professional foreign language communicative competence in the fields of "Science", "Education";
- development of skills to identify partners in order to implement and conduct international projects in the fields of education and science;
- the use of strategies of intercultural interpersonal interaction, as well as techniques that contribute to overcoming intercultural and ethnic barriers.

Figure 1: Sufficient level of academic mobility.

Performing informational and linguistic professional activities while increasing the level of students' readiness for academic mobility consists in collecting and using the necessary information, as well as in the ability to process this information and present it as a certain result, to reveal it to the participants of communication. Therefore, specially organized methodical work on the development of professional foreign language communicative competence of students in the process of academic mobility also has a positive effect on the formation of this competence.

Research activity is also included in this process, because during its implementation, the student learns to manage the basic laws and principles of logical thinking, improves his own intellectual sphere, goes from "common to private" or from "private to common" to solve an isolated problem, and uses a set of tools to argue one's point of view within certain tasks. Correlation of own assumptions with the dominant educational and educational paradigm within the framework of modern society will allow students, based on existing theoretical knowledge, to analyze and solve complex interpersonal situations, situations of moral choice, use a complex of educational and methodological materials, as well as professional activities through the use of advanced information resources, as well as technologies. Based on the results of mastering the material, the student will acquire a sufficient level of academic mobility, which is expressed in the following:

- language component (the ability to speak a foreign language quickly, engage in foreign communication without problems, receive and process information in a foreign language, self-realization through working with material in a foreign language);
- the academic component (the ability to independently organize one's educational work, coordinate and manage collective interaction in a pair, group, critically discuss and analyze educational material using a foreign language);
- personal component (the ability to quickly adapt in a social environment, awareness of the value of another culture, the presence of developed intercultural communication skills, the ability to organize space interaction taking into account mutual respect, etc.).

In connection with the new requirements for modern specialists, the requirements for mastering the discipline "Foreign language" were brought into line with the scale of "All-European competences for mastering a foreign language: Study, teaching, evaluation". Changes were also made to the system of continuous training of university students. The essence of this document is the uniform standardization of the assessment of language skills in European countries and the mutual recognition of language competences. The assessment scale allows you to assess the amount of vocabulary, grammatical structures, the level of skill development (pace of speech, clarity of speech, vocabulary activity, reading speed, text comprehension and listening comprehension). According to a survey conducted among 52 students of the 2nd-3rd years of Ternopil National Polytechnic University named after Ivan Pulyu, the respondents identified the following main obstacles on the way to academic mobility: language component, the academic component, personal component. After evaluating these obstacles from 1 to 10 points, the percentage expression of the indicators was calculated:

$$P = \left(\frac{AS * R_{total}}{PS_{max}} \right) * 100 \% \quad (1)$$

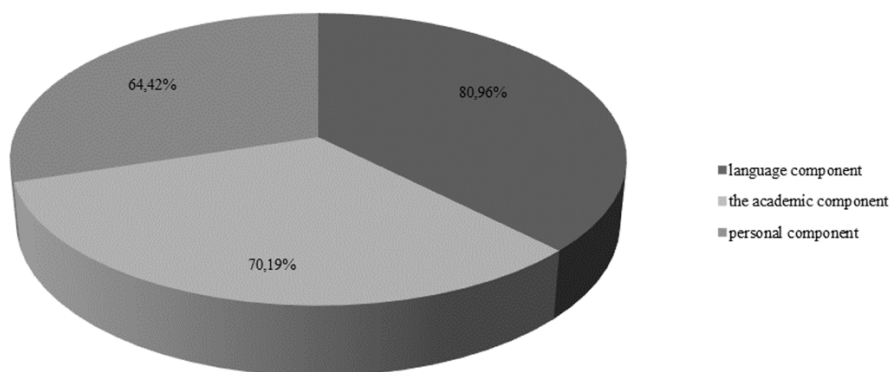
where P – the percentage of the current assessment by indicators to the total;

AS – average score for each indicator (from 1 to 10);

R_{total} – total number of respondents;

PS_{max} – the maximum possible score (in this case is 520 points).

The results of the study are given in Appendix A. The obtained calculation results are shown in Figure 1.



Source: Compiled by the author.

According to the scale developed by the Council of Europe, Common European Framework of Reference for Languages, the level of foreign (English) language proficiency of applicants for participation in the course “Foreign Language for Academic Mobility” (“Foreign Language for Academic Mobility”) must not be lower than the B1 level. This course is not mandatory and can be considered as a component in the process of continuous learning of a foreign language for future specialists. Continuous language training should be considered a set of programs aimed at the formation and further development of foreign language communicative competence, taking into account the requirements of the world labor market and the personal needs of students. The course is optional and is designed for 100 classroom academic hours, for 1 year of study. The main forms of learning are group classroom classes and independent extracurricular work of students. The course “English for academic mobility” is aimed at the further development of foreign language communicative competence formed at the previous level of education (school, first year of bachelor’s degree), and improvement of four main types of language activities: reading, writing, speaking and listening. The main goal of the course is to increase the level of foreign language proficiency, develop the ability to use a foreign language in various spheres of activity: household, professional, scientific and cultural; preparing students to use the English language as a means of international communication, during internships and studies as part of academic mobility programs, as well as for self-education. As a result of learning the “Foreign Language for Academic Mobility” course, the student should know:

- lexical minimum and grammatical phenomena that ensure communication of a general and business nature;
- rules of language etiquette and cultural traditions of communication in foreign-speaking countries;
- be able:
- use a foreign language in communication during internship;
- work in an international environment;
- work with English-language sources of information (press, letters, etc.);
- write a resume, business letter, motivational letter;
- master the basics of language communication (listening, reading, speaking, writing); skills in working with business correspondence (letter, e-mail, etc.).

Lesson topics are combined in modules. The texts are read by native speakers of the language or other foreign countries who are participants in academic exchange programs. At the stage of listening to the text, students improve their pronunciation and listening comprehension skills. The topics of the authentic texts include country studies and cultural information, the purpose of which is preparation for staying and studying in a foreign university. Improvement of grammatical skills is carried out in the process of working out new lexical units. The texts are selected in accordance with the declared topic of the module (academic exchange programs, the place of language in the world, international exams, etc.) and contain rich factual

material, various grammatical constructions and special vocabulary, which in the future will help the participants of academic exchange programs to adapt to life abroad in terms of socio-culture. New lexical units are consolidated in the process of performing the following types of tasks: comparing a word with its definition, multiple choice, filling in blanks in sentences, making up one’s own sentences using the learned vocabulary. An equally important stage is listening. The biggest difficulty for students is the perception of speech by ear. The purpose of listening is to develop the skills of listening to texts of monologic and dialogic nature, correction of pronunciation skills. In the process of listening, listening skills are developed, pronunciation is practiced, vocabulary is increased, and grammar is improved. Usually, the average duration of the text is 3.5 minutes. Before the audition, pre-text work must be done to remove difficulties. The teacher explains the meaning of unfamiliar words through synonyms or definitions in English, questions are sorted out, which students must answer after listening. Probably, at this stage, students are able to predict what the dialogue or monologue will be about (anticipation). After the initial or repeated listening of the text or dialogue, students fill in the blanks on the proposed form with tasks. Most often, in order to fill in the gaps, it is necessary to conduct an analysis of what was heard, to compare the information. The next task for checking the understanding of what has been heard is a task that classifies the proposed statements as true, false or the information was not given, and the false information should be corrected by giving an answer that corresponds to the truth. Thus, the teacher checks the degree of comprehension of the text. And, as a result, those who study are offered to listen to the text again, but already with a visual reference. Work with the text for listening ends with a discussion. The listening texts also correspond to the declared topic of the module and introduce students to the cultural values, traditions and realities of foreign countries, which will undoubtedly have a positive effect on the immersion of our students in the academic environment of the European educational space. Writing is a “reliable” way of intercultural interaction between people, an important condition for improving the oral form of communication. The purpose of this stage within the course is to develop the skills and abilities necessary for writing a motivation letter (Motivation Letter), cover letter (Cover Letter), resume (Resume or CV), personal statement (Personal Statement) of a student applicant for participation in an academic program exchange. In the classes, students get acquainted with the structure and content of the listed documents and characteristic persistent expressions (clichés), analyze sample documents, as well as documents of students who participated in the programs in previous years.

The goal of everyone learning a foreign language is to speak the language fluently. Speaking skills are also developed in each lesson. Speaking is the most difficult skill to work on. Often, students have a large vocabulary, competently construct a prepared speech (monologue), compose business letters according to the model, and when it comes to spontaneous speech (dialogue), the so-called language barrier arises - the fear of speaking in a foreign language. In order to overcome the

barrier, in the classes, students discuss the texts of the classes, the topics proposed by the teacher and the problems that the students may face while studying in a foreign university. Thus, spontaneous speech develops. The result of the course will be presentations by students in English. The topic of the presentation is determined by the student himself, but it must correspond to the direction of his training. It should be noted that, unfortunately, the allotted amount of time (100 academic hours) does not allow to significantly increase the level of English language proficiency.

4 Discussion

Under the influence of politics and increasing globalization, in the 2010s, domestic science was fully included in the processes of international academic exchange. Until 2019, 17.2 % of Ukrainian candidates and doctors of science, who present a wide range of fields of science, had a long (more than three months) experience of studying or working abroad. Among the countries of departure, Germany, the USA and France were in the lead. Data on the reverse movement - the influx of foreign researchers and higher education teachers to Ukraine — is limited, but the statistics of postgraduate studies show that during the years 2010-2020, Ukraine became increasingly attractive to students with academic ambitions. Over the decade, the number of foreign graduate students in Ukraine increased by 72.2 % (from 5.5 thousand in 2010 to 9.5 thousand in 2020).

Despite the normalization of the processes of international academic mobility and the active involvement of scientists from abroad by Ukrainian universities and scientific organizations, in many public discussions, as before, anxious moods and statements about the massive and irreversible outflow of scientific and scientific-pedagogical personnel from Ukraine to abroad can be traced. Such a discourse is connected, on the one hand, with the lack of reliable data on the intensity and structure of this process, which provokes significant variability in expert assessments, and on the other hand, with insufficient understanding of the complex nature of its effects.

In the conditions of the current foreign policy situation, consolidation of the achieved position is at risk. In these conditions, taking into account the high degree of integration of Ukrainian science into the global scientific and technological space and the preservation of interest in the development of international cooperation (both with traditional partner countries and in new directions), steps to increase the attractiveness of scientific activity in Ukraine and for domestic and foreign specialists.

State support for science made it possible to increase the attractiveness of work in the country not only for domestic scientists and teachers of higher education, but also for foreigners. In the pre-war years, researchers and teachers who had previously worked for at least two years abroad returned to the country. This process covered a wide range of countries: Germany, USA, Great Britain, France. In the specified period, outgoing and incoming flows were distinguished by their structural characteristics: primarily employees with scientific degrees, representatives of natural sciences left Ukraine for work, study or internship abroad. The incoming stream was more diverse in its socio-demographic characteristics.

Researchers and teachers of different age groups come to Ukraine, among among them, the share of young people under the age of 30 was higher than among those leaving. Their distribution by qualification groups and fields of science was more even. In general, the survey showed that by the end of the 2020s, Ukraine managed to create conditions for the support and development of the personnel potential of science, for the effective integration of domestic scientists and teachers of higher education into the system of circulation of scientific personnel and the global academic labor market. At the same time, the long-term consolidation of the achieved results is at risk today. Researchers and teachers of higher education participating in international collaborations and those who plan to develop their knowledge and competences with the help of various international mobility programs now face serious challenges due

to current foreign policy events. They not only create significant obstacles for international scientific contacts, but also form real threats of a new round of “brain drain”. Ukraine is also affected by the state of war and the unprecedented scientific and technological risks that arise in connection with this, bringing to the fore the task of preserving the personnel potential of Ukrainian science, developing and supporting new mechanisms and formats for its development, including through the involvement of foreign colleagues from countries that were previously de facto on the periphery of international scientific and technical cooperation (India, South Africa, Southeast Asia, Latin America, etc.). These tasks are especially relevant given the fact that in the countries that are technological leaders, a stable system of state support for the attraction and retention of scientific personnel has been formed for many years. For example, the universities and scientific centers of Germany and other Western European countries have high social standards for the profession of a scientist, which implies a decent level of remuneration (on average about 76,000 euros per year for scientists at universities and 60,000 euros per year in scientific organizations), clear criteria for career advancement, social support for the education of scientists and their families, including those who come from other countries. In the current situation, and taking into account the global competition for scientific and scientific and technological personnel, it is necessary to return to the consideration of problems that directly determine the attraction of a scientific career in Ukraine and require an accelerated solution, namely:

- The size of a postgraduate student’s scholarship does not even reach the living wage, while postgraduate students in competing countries receive remuneration in the amount of the average salary.
- The incomes of Ukrainian scientists are incomparable with the incomes of their colleagues in leading countries: in the USA, Germany and China, a university professor receives on average 3-6 times more than a Ukrainian.
- The high fiscal burden and lack of own funds of scientific organizations and universities limit their ability to maintain globally sought-after scientists. While many countries have long used reduced taxation for scientists engaged in research and development (France, Sweden, Belgium, Spain, the Netherlands, Hungary, etc.).
- The current practice of “short” budgetary funding of science, which actually does not differ from other sectors of the economy, hinders the formation of academic prospects for scientists; state tasks of universities and scientific organizations are calculated for an average of 1-3 years, while the cycle of fundamental research is 5-10 years on average. Scientists are required to provide an annual justification of the topics within the framework of the state task, which actually means a lack of trust and creates uncertainty in their prospects.
- For many years, the problems of excessive regulation and duration of purchases of scientific equipment and materials, as well as reporting (treasury, financial, accounting, tax, scientific, etc.) have been discussed.

Recognizing the persistence of some systemic problems, in recent years the state systematically increased the amount of support for scientists, implementing a number of new tools within the framework of national projects, presidential and government initiatives.

The current risks of the country caused by the state of war, the reduction of opportunities to attract foreign specialists, support scientific contacts with foreign scientists, and the implementation of international mobility require a review of the state policy in the field of scientific personnel in order to dampen the risks of the outflow of talented young people and globally competitive researchers abroad, as well as increasing attractiveness of work in Ukraine for foreign specialists. A large-scale and integral support system for scientists must be formed in a forced mode. The first and long overdue step is to reform the postgraduate education system. In order to increase the attractiveness of a scientific career for young people and prevent

their outflow abroad, it is proposed to implement integrated training programs, with additional stimulation of scientific management, already after the completion of the master's degree. Now it is important to retain the "core" of leading scientists who work in Ukraine and have world-class achievements. It is possible to implement this by developing a special budget co-financing program for the remuneration fund of globally competitive Ukrainian scientists, creating all the necessary conditions for their stable scientific activity within the country.

Support for graduate students and researchers working abroad should be a separate direction of the policy. Following the example of China, a national program for the return of domestic scientists to the country with the provision of the most favorable working conditions can be developed. Taking into account the objective limitations of the directions of international cooperation, it is necessary to quickly establish and develop scientific contacts with new partners, redirecting the mobility flows of domestic scientists who were active earlier.

5 Conclusion

The primary measures that stimulate the exchange of experience and improvement of research competences are systemic measures that will reduce the financial burden on universities and scientific organizations, freeing up funds for attracting and maintaining promising research and increasing the sustainability of science funding. They can be a reduction in the rates of insurance contributions for scientists to 7.6%, as well as the implementation of long-term research programs within the framework of state tasks of leading universities and scientific organizations with continuous funding for a period of at least six years and with interim control of results. These and other measures (including the reduction of administrative checks, the volume of reporting) will allow to increase the prestige of the field of science for talented young people and leading scientists, to preserve personnel potential, to reorient international scientific cooperation and the flows of incoming and outgoing mobility in order to prevent a return from the "circulation of minds" to their "flow".

Thus, despite the mostly positive effects of international academic mobility in certain conditions, it carries serious risks for the preservation and development of the personnel potential of national science. Its influence is determined by the intensity of the outgoing and incoming flows, their structural characteristics. The assessment of the potential impact of this process must inevitably be based on a reliable information base, which is currently not formed. The topic of mass emigration of scientists abroad has become traumatic for modern Ukraine. It constantly attracts the attention of journalists and gives rise to various attempts to speculate on this topic. The difficulty of objectively assessing the scope of this process and the lack of systematic monitoring of outgoing and incoming migration flows of scientists contributed to the spread of anxious attitudes in society. At the same time, measures to support scientists constantly used by the country's leadership contributed to the formation of a stable trend of turning irreversible migration into a return migration, turning it into a "classic" model of international mobility accepted in economically developed countries. According to this model, it is considered the norm for a scientist to gain work experience in different countries and different teams, acquire new competencies, and transfer them to his native country.

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Primary Paper Section: A

Secondary Paper Section: AM

Appendix A

Respondents	Language component	The academic component	Personal component
P1	10	7	5
P2	8	9	7
P3	5	8	6
P4	7	10	5
P5	6	9	9
P6	9	8	3
P7	10	7	4
P8	7	9	5
P9	6	9	7
P10	8	10	9
P11	9	5	10
P12	10	9	2
P13	5	4	9
P14	7	7	6
P15	9	9	8
P16	10	4	3
P17	7	5	9
P18	6	10	10
P19	9	2	5
P20	10	8	9
P21	10	7	7
P22	8	5	6
P23	7	7	7
P24	9	6	9
P25	10	9	5
P26	7	10	7
P27	8	3	8
P28	9	4	5
P29	10	5	8
P30	7	7	6
P31	9	9	10
P32	10	2	8
P33	7	7	5
P34	9	6	6
P35	10	3	8
P36	7	9	7
P37	9	7	4
P38	10	8	8
P39	7	10	5
P40	10	5	7
P41	8	7	5

P42	5	10	4
P43	6	8	6
P44	8	5	8
P45	7	7	5
P46	6	8	4
P47	9	9	9
P48	10	6	2
P49	7	7	7
P50	9	6	6
P51	10	4	3
P52	5	10	9
Average value	8,096154	7,019231	6,442308
Coefficient	0,809615	0,701923	0,644231
Percentage of total	80,96154	70,19231	64,42308