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We ReLaTe: Advancing effective institutional models towards cohesive teaching, learning, research and writing development. Institutional Models Towards Cohesive Teaching, Learning, Research and Writing Development – Case Study. The Transport and Telecommunication Institute in Riga (Latvia)

INTRODUCTION

The research conducted at the Transport and Telecommunication Institute in Riga in Latvia from 27 to 31 May 2019 included: investigation of the formal model for supporting these four areas; investigation of the existing practices for supporting these four areas; investigation of the work performed by the office and/or offices, which are managed by dedicated staff, whose primary role is to provide institution-wide support for the four key activities; discussion of pros and cons of the existing system with colleagues from Transport and Telecommunication Institute (especially with the colleagues from the Department of Humanities).

I used the case study template (profile of the institution; overview of the centralized supports of writing, research, learning and teaching; interoperability and synergies across the supports; opportunities associated with this model; challenges associated with this model; professional reflections and references). The interview with Prof. Yulia Stukalina, who is the expert in these issues, was very helpful in the aims of my STSM. I have also prepared the questionnaire to receive the Institute's employees opinions connected with the centralized supports of writing, research,

learning and teaching. The other important sources of information about the institution were documents published in the Internet.

PROFILE OF THE INSTITUTION

The Transport and Telecommunication Institute (Lat. *Transporta un Sakaru Institūts*, TSI) is the university-successor of the legendary RKIIGA (Riga Red-Banner Civil Aviation Institute) and RAU (Riga Aviation Institute). In the present-day appearance, the Institute was established in 1999. This is the only private technical college university type in Latvia.

The Transport and Telecommunication Institute

Source: The picture was taken by the author.

It offers all levels of higher education (bachelor, master and doctoral). The courses are possible in Latvian, English and Russian. The Institute has received permanent accreditation in Latvia as a higher education institution. It provides with the academic programs in the following directions: transport and logistics, computer sciences, electronics and telecommunication, economics and management, aviation transport. In June 2013, all education directions of TSI received accreditation for the maximum period – 6 years.

It is worth adding that the Institute is the only one among private colleges included in the list of very good scientific institutions. According to scientific results, it takes second place among private institutions of higher education in Latvia. According to the Institute data, total amount of institute graduates is more than 7,500 and current amount of students is about 3,000. There are international students from India, Kazakhstan, Moldova, Russia, Uzbekistan, Ukraine, Azerbaijan, the UK, and other countries. There are also ERASMUS students from Spain, Poland, Bulgaria, Turkey, Slovakia, and other states.

THE EXISTING SUPPORT SYSTEM FOR RESEARCH, WRITING, TEACHING AND LEARNING IN THE TRANSPORT AND TELECOMMUNICATION INSTITUTE

The centralized support means an office or center, which is managed by dedicated staff, whose primary role is to provide institution-wide support for the four key activities: teaching, learning, research, and writing. According to this definition, the support system in the Transport and Telecommunication Institute is generally centralized.

The Institute includes three faculties (the Faculty of Computer Science and Telecommunication; the Faculty of Management and Economics; the Faculty of Transport and Logistics (there is also Latgalian branch); six departments/chairs (Department of Software Engineering; Mathematical Methods and Modelling Department; Electronics and Telecommunications; the Department of Transportation and Logistics; Aviation Transport Department; the Department of Economics, Management and Finance; the Department of Humanities). The International Relations Department provides support for students and academic/attending staff who want to participate in the ERASMUS+ mobility programme.

At the Institute, there is the Multimedia Laboratory, which is equipped with video-recording and editing equipment complex, which allows creating educational, informative and commercial videos. The filming process of video lectures for the purposes of distance studying, sound recording for video materials and their preparation for placing into e-studying environment takes place at the filming studio.

There are three educational and research centers:

1. Academic and Professional Aviation Center (APAC) (created in 2008) is a kind of the structural unit of the Institute to implement all types of aviation education (conducts basic knowledge training for category B1 in technician mechanics and category

B2 in technician avionics). The classrooms are equipped with multimedia facilities, workshops with modern equipment and tools necessary for the training of aviation specialists. Laboratories of radio electronics and electrical engineering are available.

2. The Center of Telecommunications, Electronics and Robotics (created in 2013) includes nine laboratories (industrial robots, mobile robots, physics and electrical machines, modeling of electronic systems, embedded systems and digital signal processing, industrial automation, subsurface radiolocation, robotics and students' research work, designing and prototyping, telecommunications and electro-optical systems, electronics). Mentioned laboratories are equipped with the latest software and hardware widely used in academic and research activities. Each laboratory is a collection of contemporary technical, software and methodological maintenance.

3. Life-long Education Center runs courses for outside people (payable) and for inside staff and teachers (reduced payment).

For supporting research and innovation, the Institute has the Research and Development Department. Its tasks are as follows: promotion of the efficient use and development of scientific potential of the Institute; monitoring the needs of the market through active innovative activities with entrepreneurs; creating the environment of continuous partnership of industrial enterprises around the Institute; expansion of the international scientific and technological cooperation; development of infrastructure to further commercialization of software and technical provision; performance of scientific research; cooperation of professors and lecturers in finding, writing and, subsequently, management of projects on European, national and municipal level; organization of scientific (theoretical and practical) conferences; provision of Institute's management with necessary information to determine the prospects for the development of the Intitute; presentation of scientific activities in the state, municipal and private institutions; record-keeping and preparation of statistical data and summary reporting on research and innovation activities. There are head of the Department, Specialist in Doctoral Programme, 3 project managers, research referent officer.
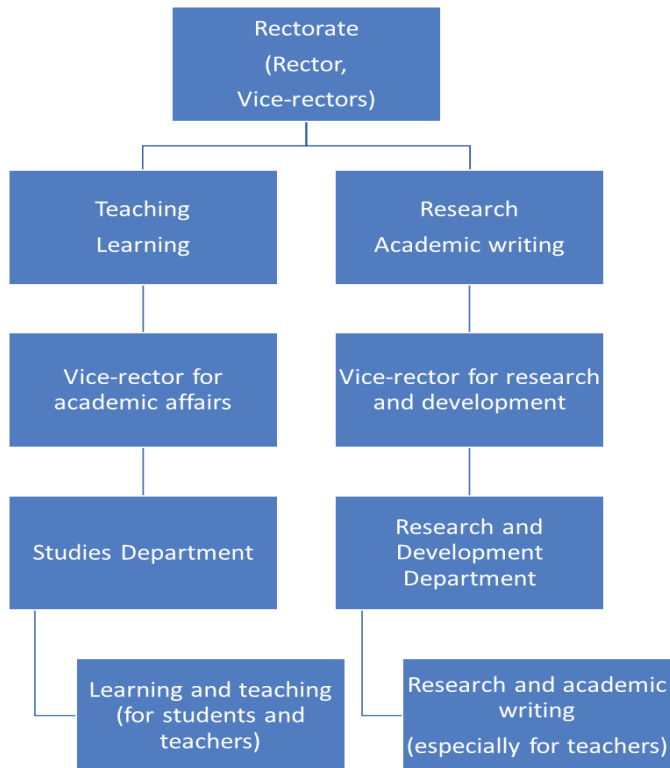
The Library of Transport and Telecommunication Institute has recently been reconstructed in a modern way to provide full support for students and academic staff. TSI Library reading-hall for students and teachers is well-stocked with up-to-date books and with a range of useful professional journals. The library also provides access to a wide range of electronic databases. There is also a computerized reading-hall, where the students have an opportunity to practice on their own. Most of TSI Library working places for students are computerized.

The Life-long Education Center provides the following study courses:

– non-formal education program "English Terminology in the Electric Power Industry" (adult education);

– non-formal education program "Financial and Information Competence for Adults";

– non-formal education program "Green Business Ideas for Starting a Small Business" (adult education);

– non-formal education program "Professional English for Mechanics" (adult education);

– non-formal education program "Sustainable Using of Resources in the Enterprise" (adult education);

– TTI Lifelong Education Centre offers non-formal education programme "Data Science: from Data to Product";

– TTI Lifelong Education Centre offers courses – Computer Networks: Cisco Certified Network Associate (CCNA) Routing and Switching. Module 1: Introduction to Networks; Module 2: Introduction to Networks; Module 3: Introduction to Networks; Module 4: Introduction to Networks; Non-formal Education Programme "Introduction to R for Data Analytics";

– language courses: Chinese Language Courses; International Business English;

– Legal Aspects of International Trade and Aviation;

– Requirement Management Methods;

– Strategic and Change Management in Aviation.

The structure of the centralized system of support at the Transport and Telecommunication Institute is given below.

Rectorate
(Rector, Vice-rectors)

Teaching
Learning

Research
Academic writing

Vice-rector for
academic affairs

Vice-rector for research
and development

Studies Department

Research and
Development
Department

Learning and teaching
(for students and
teachers)

Research and academic
writing
(especially for teachers)

Source: Author's own study on the basis of official information available at the Institute's website and of an interview conducted with Prof. Stukalina.

CHALLENGES, OPPORTUNITIES AND EFFECTIVENESS OF THE SYSTEM

Challenges:
– strong competition for European research grants; as a private high school, the Institute does not receive money from the government;
– strong competition between the Institute, other private universities and state universities.
Opportunities:
– professional profile of the Institute;
– professional training courses; experienced staff and teachers; courses in 3 languages;
– big number of international research projects; professional equipment and very good laboratories (European grant for laboratories).
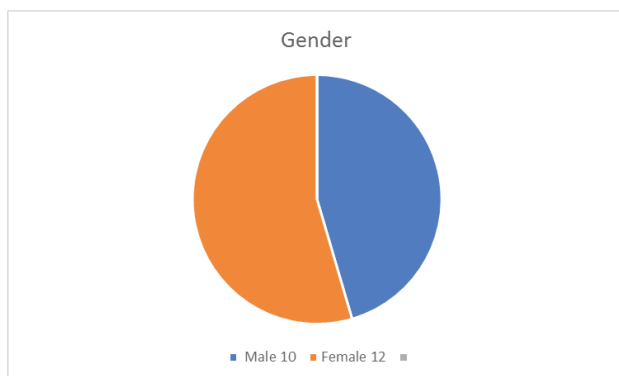Effectiveness:
The system is quite effective: active international cooperation; international conferences and symposiums; a lot of research grants; foreign students (including ERASMUS students) from different countries (Bulgaria, Spain, India, Kazakhstan, Pakistan, Russia, Uzbekistan, Ukraine, Poland, Turkey, Slovakia, Belarus, Egypt, etc.).
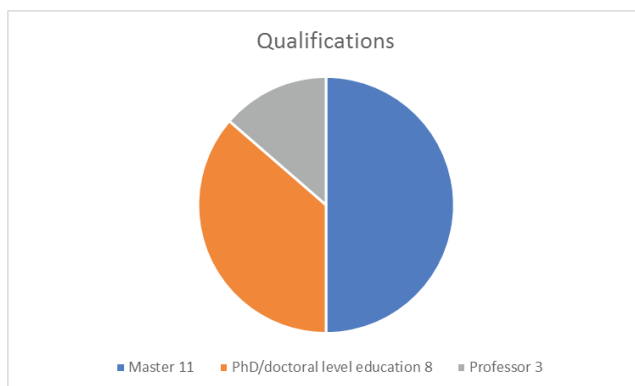

THE QUESTIONNAIRE RESULTS

The survey was prepared on the basis of a much longer questionnaire developed as part of the COST Action CA 15221 – Advancing effective institutional models towards cohesive teaching, learning, research and writing development. The questionnaire was composed of 16 questions: 13 closed questions and 3 open ones. 22 people completed the survey. My STSM took place at the end of the semester and there were not many employees at the Institute.
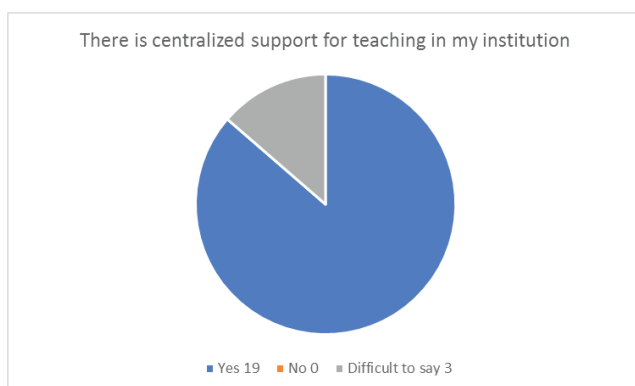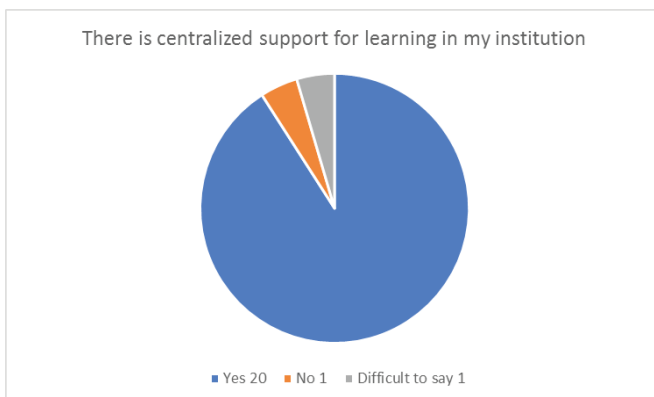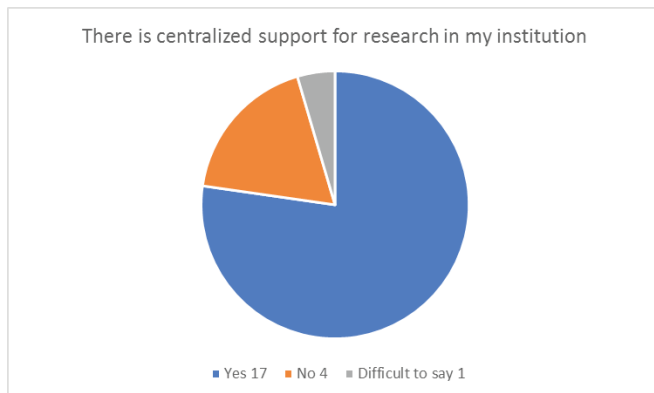
1.   Gender

Gender

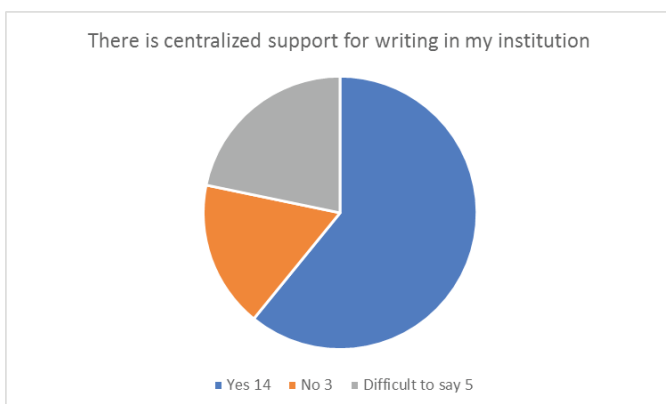■ Male 10   ■ Female 12   ■

2. Qualifications

Qualifications

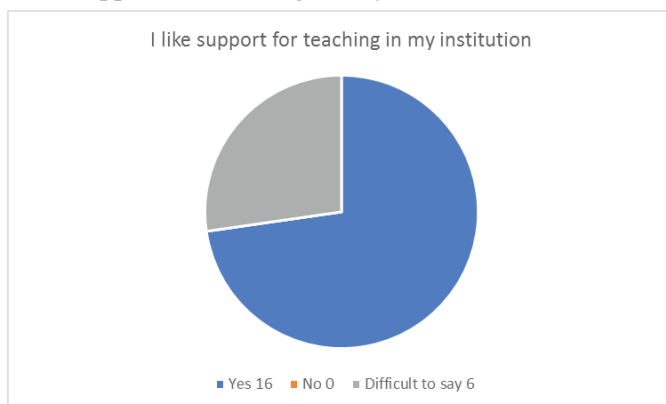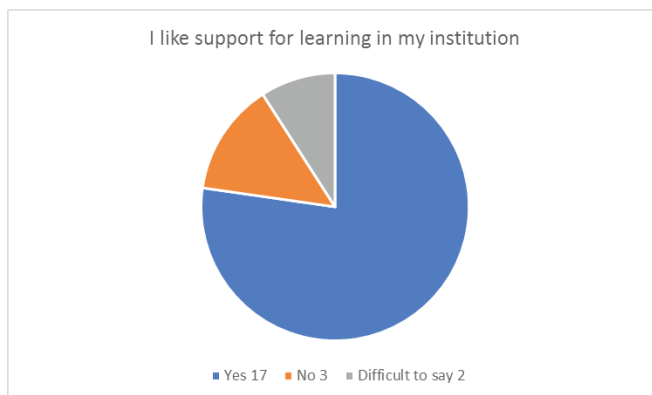■ Master 11   ■ PhD/doctoral level education 8   ■ Professor 3

3. There is centralized support for *teaching* in my institution

There is centralized support for teaching in my institution

■ Yes 19   ■ No 0   ■ Difficult to say 3

4. There is centralized support for *learning* in my institution

There is centralized support for learning in my institution

■ Yes 20   ■ No 1   ■ Difficult to say 1

5. There is centralized support for *research* in my institution

There is centralized support for research in my institution

Yes 17   No 4   Difficult to say 1

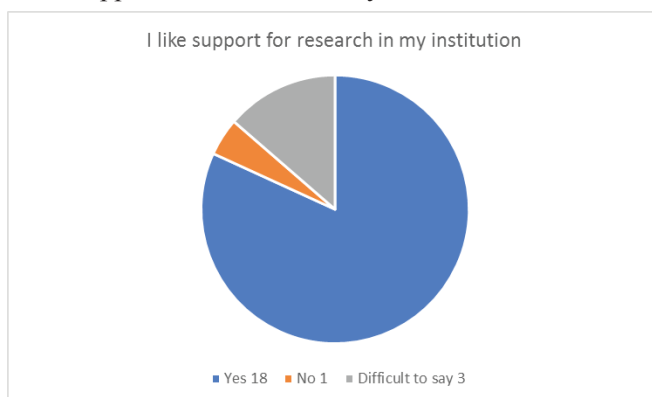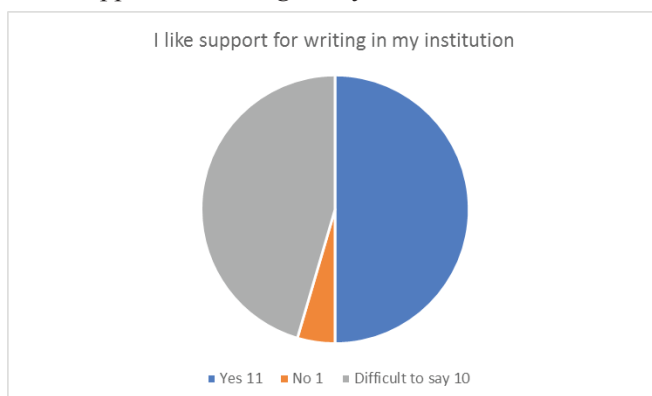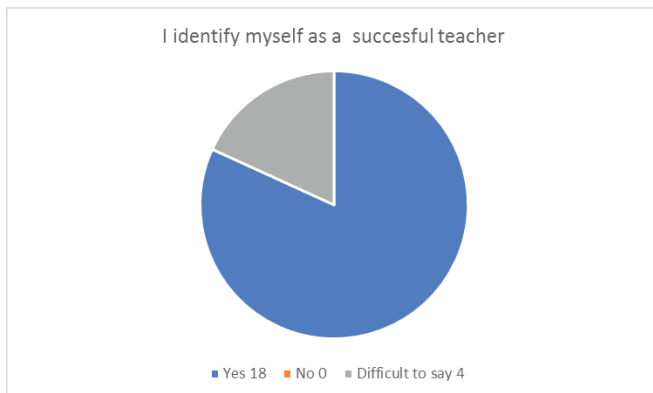6. There is centralized support for *writing* in my institution

There is centralized support for writing in my institution

Yes 14   No 3   Difficult to say 5

7. I like support for *teaching* in my institution

I like support for teaching in my institution

Yes 16   No 0   Difficult to say 6

8. I like support for *learning* in my institution

I like support for learning in my institution

Yes 17 ■ No 3 ■ Difficult to say 2

9. I like support for *research* in my institution

I like support for research in my institution

Yes 18 ■ No 1 ■ Difficult to say 3

10. I like support for *writing* in my institution

I like support for writing in my institution

Yes 11 ■ No 1 ■ Difficult to say 10

11. I identify myself as a successful teacher

I identify myself as a succesful teacher

Yes 18   No 0   Difficult to say 4

12. I identify myself as a successful researcher

I identify myself as a succesful reseacher

Yes 11   No 1   Difficult to say 10

13. I identify myself as a successful academic writer

I identify myself as a succesful academic writer

Yes 10   No 4   Difficult to say 8
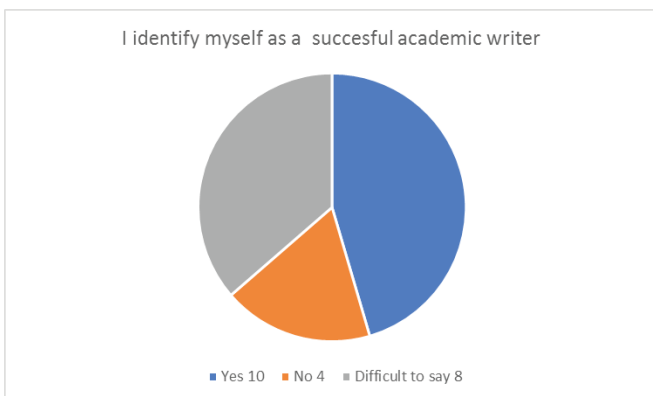
14. What has been the most significant and effective research support that your institution has provided for you?
– free doctoral study
– grants
– academic internships in institutions connected with the area of interest
– purchase of new equipment for research
– participation in scientific projects and conferences organized by the Institute
– research projects
– received highly valuable advices
– my science advisor (Master's degree research work) gives me a highly valuable advices in the field of Applied Math & Statistics
– grant for learning and research
– difficult to say
– a room for self-studying
– to be a part of EU projects
– opportunity to participate in science projects
– modern STEM certification
– the opportunity to participate in scientific conferences
– research project participation
– the most significant and effective research support was consultations with professors and providing access to research data bases and scientific papers
– I haven't used it yet
– moral support; decreasing the teacher's load; sharing experience
– financial support
– Moodle

15. The support that I would most like my institution to provide for me at this stage in my career is/are:
– professional qualification training (enhancement support, etc.); better engagement in the activities taking place at TSI and more info on possibilities to engage
– providing an opportunity of participation in International Scientific Conference
– grants
– professional training; trust in my work
– good working conditions and great atmosphere
– support
– rather powerful computational capacity, such as our server or an access to AWS
– international contact; International collaborative contacts
– courses, seminars and mentor support
– PhD/Doctoral grants
– to consider participation in the future projects
– research projects; conference grants
– to pay for conferences participation fees

– I would be interested in participating in the research internships
– to add opportunities for research grants
– more participations in the projects
– free doctoral studies; participation in paid projects and programs
– more financial support

16. What advice would you give to an early career academic seeking to succeed across teaching, learning, research and writing?
– work hard; don't lose your time as the competition is very high
– be proactive
– be creative and open-minded!
– ask senior researchers for advice
– develop yourself
– keep doing everything for reaching their goals
– work harder!
– difficult to say
– active participation in all processes and projects
– you just need to find something, which CAN really motivate you, encourage you!
– to participate in international research collaborations
– to gain as much connections as possible
– they should devote more time to research and publications
– to be involved into institutional research as much as possible
– permanently to broaden their world outlook
– be active
– to get more and more connections in academic world that will definitely lead to a lot of help in your activities
– not to be afraid to apply for grants
– to remember that a coin has got two sides. Therefore, it is vital to use all means of research tools available.

CONCLUSIONS

The purpose of the visit in the Transport and Telecommunication Institute in Riga in Latvia was to develop institutional network for the purpose of furthering friendship, scientific cooperation and exchange new ideas in the field of COST Action CA 15221 – Advancing effective institutional models towards cohesive teaching, learning, research and writing development. Especially, I was interested in investigating the existing support system for research, writing, teaching and learning at the Institute and prepare the case study. The Institute is the only private technical college university type in Latvia. It offers all levels of higher education (bachelor, master,

doctoral) and many professional courses. There are professional centers responsible for teaching and learning on the one hand (Studies Department), and for research and academic writing on the other hand (Research Department).

The survey was completed by 22 people (male – 10 and female – 12; master – 11, PhD/doctoral level education – 8, professor – 3). According to 19 persons, there is centralized support for teaching (for 3 persons it is difficult to say). For 20 respondents, there is centralized support for *learning*. 17 respondents think that there is centralized support for research, 4 people do not share this opinion (for 1 person it is difficult to say). A divergence has arisen in relation to question 6 regarding a centralized support system for writing (yes – 14; no – 3; difficult to say – 5). 16 respondents like support for teaching; 17 like support for learning; 18 like support for research and 11 like support for writing. 18 respondents identify themselves as a successful teacher; 11 – as a successful researcher and 10 – as a successful academic writer.

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