



agency for science and higher education croatia

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Faculty of Education and Rehabilitation Sciences University of Zagreb

REACCREDITATION OF THE POSTGRADUATE UNIVERSITY PROGRAMME

Speech, Language and Hearing Disorders

16th September 2019

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The SER text (without attachments) should not exceed 50 pages (not including tables or annexes).

I GENERAL INFORMATION AND CONDITIONS OF DELIVERY

Name of the study programme: Postgraduate doctoral study Speech, Language and Hearing Disorders

Institution providing the programme: Faculty of Education and Rehabilitation Sciences (ERF) University of Zagreb

Institution delivering the programme: Faculty of Education and Rehabilitation Sciences (ERF) University of Zagreb

Scientific area and field: social sciences, field of speech and language pathology

Place of delivery: Faculty of Education and Rehabilitation Sciences (ERF) University of Zagreb, University Campus Borongaj

Number of doctoral candidates (all): 11

Number of HEI funded doctoral candidates (assistants employed at that or another HEI or institute): 3

Number of self-funded doctoral candidates and employer-funded doctoral candidates: 8

Number of inactive doctoral candidates (did not enrol in a higher year of study but still have the right to study): 2

Number of teachers at the doctoral study programme: (state the ones employed by the HEI as well as the external associates)

In total 24 teachers are involved in doctoral study; 7 of them are external associates.

Number of supervisors (state the officially appointed supervisors, but also separately state other types of supervision, such as supervisor - advisor etc., as well as the number of doctoral candidates they supervise):

This is the first generation of students so they still have not defended their thesis synopsis (according to Regulations on Doctoral Studies at the University of Zagreb from 2016, the deadline for the defense is in 5th semester), so they still do not have a supervisor. However, all students have begun working on the drafts of their doctoral research under the supervision of potential supervisors. All students were appointed study advisors. There are eight student advisors in total. Each student advisor monitors the activity of one student except three student advisors that monitor the activity of two students.

Number of doctoral candidates to whom a supervisor was officially appointed:

None. Students will start with their public presentation and defense of their synopsis in 5th semester. That is when they will be appointed a supervisor.

Learning outcomes of the programme:

Outcomes result from two modules:

1) Obligatory module consisting of teaching activities exclusively directed towards statistical-methodological knowledge and knowledge of ethical principles in research, as well as latest knowledge in all three areas of speech and language pathology. This module highlights specific competences in the area of speech and language pathology, especially its research part.

2) Obligatory extracurricular module consisting of all research activities that encourage the development of generic skills and result in the dissemination of newly developed knowledge.

Table with the learning outcomes: (for example the table with the learning outcomes of the programme and courses/other ways of achieving those learning outcomes, such as independent research work):

OBLIGATORY AND ELECTIVE COURSES		OUTCOMES
1.	Research methods	Shape and apply suitable research draft taking into consideration research questions. Assess and evaluate different types of research drafts and discuss their suitability.
2.	Data analysis in speech and language pathology research - selected topics	Apply basic and complex statistical methods and programming packages with the aim of solving research questions. Interpret collected data within the scope of scientifically founded theoretical schemes and approaches.
3.	Multivariate statistical methods	
4.	Research ethics	Support ethical principles in scientific activity with the aim of taking and developing social responsibility in implementation of different types of research in speech and language pathology.
5.	Academic writing and effective public communication	Present new knowledge orally and in writing to disseminate new insights in the area of speech and language pathology. Apply appropriate communication strategies to promote new insights regarding prevention and intervention in speech and language pathology.
6.	Language and communication disorders and specific learning disability	Apply critical thinking about new insights in speech and language pathology and integrate them in the existing knowledge system. Recognise new research problems.
7.	Voice, speech and swallowing disorders	
8.	Hearing impairments	
9.	Elective course 1	
10.	Elective course 2	Shape, apply and critically evaluate scientific insights in the specific part of speech and language pathology (language, communication, voice, speech, swallowing and hearing)
11.	Elective course 3	
MANDATORY RESEARCH-RELATED ACTIVITIES		OUTCOMES
1.	Write and present a seminar literature review paper related to the dissertation topic	Integrate information in the interest area and critically assess them with the aim of determining research question
2.	Write and present a seminar paper concerning dissertation methodology	Shape and discuss research draft
3.	Individual consultation with the mentor	Argue and evaluate different research questions and drafts.
4.	Publish one paper related to the dissertation research in a journal with international peer review process	Present new knowledge in writing.
5.	Active participation at a scientific conference/congress with a single authored research paper	Present new knowledge orally.
6.	Independent research work related to the dissertation topic	Integrate scientific insights in writing and apply suitable statistical methods, taking into consideration ethical principles in scientific activity, with the aim of developing new insights in speech and language pathology.

* state the list of numerated courses in English as an appendix or as part of table 1.

Programme outline by years (ECTS and other conditions):

The total sum of ECTS credits needed for completion of the doctoral programme is 180. One credit refers to a 25-hour student's workload.

According to the guidelines comprised in Regulations on Doctoral Programmes, course work accounts for 20% of total doctoral students' workload. Obligatory courses contribute to the total credit sum with 28 ECTS, whereas students are required to accrue 9 ECTS from elective courses. The student will select elective courses and the pace of fulfilling obligatory and elective research-related activities in accordance with his/her research interests after discussing these issues with his/her programme advisor. The student is required to accrue 85 ECTS credits during three years of the programme in mandatory research-related activities aimed towards dissertation completion. The remaining credits can be obtained by selecting different proposed elective activities within the three-year period (Table 2).

	Course work	Obligatory research-related activities	Elective activities
1st year	28	17	15
2nd year	9	10	41
3rd year	/	58	2
	37 (20.5%)	85 (47%)	58 (32.5%)

Requirements for advancement from year 1 to year 2:

- all required module courses are taken and all exams in that module are passed (8 courses),
- written and defended two qualifying exams - the first one is a theoretical literature review and the second one is a methodological design of the future doctoral thesis and
- the dissertation research funding proposal is submitted.

In the first year, a student needs to obtain at least 45 credits (of the total of 60 credits in the first year), out of which 28 credits need to be obtained from course-related activities and 17 from obligatory research-related activities in order to be able to enrol in the second year of the programme. The 15-credit difference can be acquired during second year.

Requirements for advancement from year 2 to year 3:

- elective module courses are taken and exams in that module are passed,
- thesis synopsis is made, the topic of the dissertation is registered and the dissertation supervisor has been suggested and
- Ethics Committee's approval for dissertation research has been obtained.

In the second year, a student is required to have at least 45 ECTS credits (of the total of 60 credits in the second year) until the end of 4th semester. Nine of those credits need to be course work related (gained from elective courses) and 10 credits from obligatory research-related activities in order to be able to advance to the third year. The 15-credit difference can be acquired during the third year.

Within the third year of the programme, a student is expected to independently carry out a dissertation research study, publish one research paper and present research paper on a conference.

MINIMAL LEGAL CONDITIONS

Minimal legal conditions:	YES/NO notes
1. Higher education institution (HEI) is listed in the Register of Scientific Organisations in the scientific area of the programme, and has a positive reaccreditation decision on performing higher education activities and scientific activity.	YES. ERF is listed in the Register of Scientific Organisations and has a positive reaccreditation decision on performing higher education activities and scientific activity based on the Resolution of the Ministry of Science, Education and Sport (today's Ministry of Science and Education) from 30 January 2015 (Appendix 1 and Appendix 2).
2. HEI delivers programmes in the two cycles leading to the doctoral programme, i.e., first two cycles in the same area and field/fields (for interdisciplinary programmes), and employs a sufficient number of teachers as defined by Article 6 of the Ordinance on the Content of a Licence and Conditions for Issuing a Licence for Performing Higher Education Activity, Carrying out a Study Programme and Re-Accreditation of Higher Education Institutions (OG 24/10).	YES. ERF delivers six study programmes: Undergraduate study of Speech and Language Pathology, Undergraduate study of Rehabilitation, Undergraduate study of Social Pedagogy, Graduate study of Speech and Language Pathology, Graduate Study of Educational Rehabilitation and Graduate Study of Social Pedagogy. The Faculty also delivers one specialist study Early Intervention in Educational Rehabilitation and two doctoral studies Speech, Language and Hearing Disorders and Prevention Science and Disability Study. ERF has more than five teachers appointed to scientific-teaching titles necessary to carry out the doctoral programme.
HEI employs a sufficient number of researchers, as defined by Article 7 of the Ordinance on the Content of a Licence and Conditions for Issuing a Licence for Performing Scientific Activity Re-Accreditation of Scientific Institutions (OG 83/2010).	YES. ERF employs 56 teachers with scientific-teaching title, 19 on the Department of Speech and Language Pathology and on the Department of Hearing Impairments, which are the holders of the doctoral programme.
3. At least 50% of teaching as expressed in norm-hours is delivered by teachers employed at the HEI (full-time, elected into scientific-teaching titles).	YES. More than 50% of teaching is delivered by teachers employed on the Faculty.
4. Student: teacher ratio at the HEI is below 30:1.	YES. Currently, 855 students are studying on the Faculty on all study programmes and postgraduate studies. Faculty employs 56 teachers in scientific-teaching titles. This means that the student:teacher ratio is 1:15.
5. HEI ensures that doctoral theses are public.	YES. The public nature of thesis defense is obligatory, pursuant to Regulations on Doctoral Study Speech, Language and Hearing Disorders (Articles 42 and 43) and it is announced on Faculty's websites (http://www.erf.unizg.hr/hr/) at least eight days before the defense. Moreover, the programme ensures public availability of doctoral theses on the portal Dabar (https://dabar.srce.hr/) (Appendix 3).
6. HEI launches the procedure of revoking the academic title if it is determined that it has been attained contrary to the conditions stipulated for its attainment, by severe violation of the studying rules or based on a doctoral thesis (dissertation) that has proved to be a plagiarism or a forgery according to provisions of the statute or other enactments.	YES. Regulations on Doctoral Study Speech, Language and Hearing Disorders, namely Article 46, lists all conditions and the procedure of revoking the academic PhD title.

<p>Additional/ recommended conditions of the ASHE Accreditation Council for passing a positive opinion</p>	<p>YES/NO notes</p>
<p>1. HEI (or HEIs in joint programmes) has at least five teachers appointed to scientific-teaching titles in the field, or fields relevant for the programme involved in its delivery.</p>	<p>YES. More than 5 teachers are appointed to scientific-teaching title in the field of speech and language pathology, to which the doctoral study is related.</p>
<p>2. In the most recent reaccreditation, HEI had the standard Scientific and Professional Activity (e.g. Artistic for those in the arts field) marked as at least "partly implemented" (3).</p>	<p>YES. According to the most recent Report of Expert Panel on the Accreditation from 27 October 2014, scientific and professional activity of the Faculty has been marked as mostly implemented (Appendix 4 and Appendix5).</p>
<p>3. The doctoral programme is aligned with the HEI's research strategy (integral part of this evaluation and mandatory appendix to the SER).</p>	<p>YES. Doctoral programme is aligned with the strategic document of the Faculty assigned for the period 2019-2023 (Appendix 6).</p>
<p>4. The candidate : supervisor ratio at the HEI is not above 3:1.</p>	<p>YES. Even though supervisors are not officially appointed yet, Regulations on Doctoral Study Speech, Language and Hearing Disorders, i.e. Article 25, point out that one supervisor can have the status of a supervisor or a co-supervisor to the maximum of two students in one generation, thus ensuring the proposed ratio of 1:3.</p>
<p>5. All supervisors meet the following conditions:</p> <p>a) PhD, elected into a scientific title, holds a scientific or a scientific-teaching position and/or has at least two years of postdoctoral research experience;</p> <p>b) active researcher in the scientific area of the programme, as evidenced by publications, participation in scientific conferences and/or projects in the past five years (table 2, Supervisors and candidates);</p> <p>c) confirms feasibility of the draft research plan upon admission of the candidate (or submission of the proposal);</p> <p>d) ensures the conditions (and funding) necessary to implement the candidate's research (in line with the draft research plan) as a research project leader, co-leader, participant, collaborator or in other ways;</p> <p>e) trained for the role before assuming it (through workshops, co-supervisions etc.);</p> <p>f) received a positive opinion of the HEI on previous supervisory work.</p>	<p>Even though supervisors are still not officially appointed because the 3rd year of study still has not begun, all conditions from points a-e are ensured according to Regulations on the Doctoral Study Speech, Language and Hearing Disorders, namely:</p> <p>a) YES. Supervisor of a doctoral thesis can be a person elected into scientific-teaching title as assistant professor or scientific title of a scientific associate or into equivalent title if he/she is a supervisor who achieved his/her academic title abroad, with scientific papers from the relevant area.</p> <p>b) YES. A supervisor of a doctoral thesis can only be a person with scientific publications from the relevant scientific area.</p> <p>c) YES. When submitting a topic, supervisor assumes responsibility for draft research and process of writing doctoral thesis.</p> <p>d) YES. Supervisor is obliged to provide material and non-material support. Moreover, if the supervisor leads or participates in the project, he/she will try to ensure financial support for doctoral student's research.</p> <p>e) YES. Heads of the doctoral study organised a workshop for supervisors on 19 March 2018. All teachers on the doctoral programme who did not already have the opportunity to finish it participated. The plan is to organise workshops for supervisors every three years, focusing on current challenges in working with doctoral students (Appendix 7).</p> <p>f) YES. The assessment of teachers on all levels of education is obligatory for all teachers at the University of Zagreb. Moreover, quality assessment</p>

	<p>of teachers in classes and their work with doctoral students is carried out on the doctoral programme. The results of such evaluations are the foundation for planning study programmes of next generations of doctoral study programmes.</p>
<p>6. All teachers meet the following conditions: a) holds a scientific or a scientific-teaching position; b) active researcher, recognized in the field relevant for the course (table 1, Teachers).</p>	<p>YES. All teachers on doctoral study a) hold a scientific or scientific-teaching position and b) are active researchers, recognised in the field relevant for the course.</p>
<p>7. The supervisor normally does not participate in the assessment committees.</p>	<p>YES. Regulations on the Doctoral Study Language, Speech and Hearing Disorders, i.e. Article 27, directly points out that (co)supervisor cannot be the president of Committee for Evaluation of the Dissertation, member of the Committee for Evaluation and the member of the Dissertation Defense Committee.</p>
<p>8. The programme ensures that all candidates spend at least three years doing independent research (while studying, individually, within or outside courses), which includes writing the thesis, publishing, participating in international conferences, field work, attending courses relevant for research etc.</p>	<p>YES. Obligatory courses are held during first year only. During second year, students choose three elective courses that have to be related to the topic of their doctoral dissertation. The obligatory seminar paper in the area of doctoral dissertation during first year is to ensure continuous work on doctoral thesis. Given the length of studying, such study organisation ensures minimum of three years for writing doctoral dissertation.</p>
<p>9. For joint programmes and doctoral schools (at the university level): cooperation between HEIs is based on adequate contracts; joint programmes are internationally recognized, and delivered in cooperation with accredited HEIs; the HEI delivers the programme within a doctoral school in line with the regulations (it is based on contracts in the case of multiple institutions, and the HEIs ensure good coordination aimed at supporting the candidates); at least 80% of courses are delivered by teachers employed at HEIs within the consortium.</p>	<p>/</p>

II SELF-EVALUATION BASED ON THE CRITERIA FOR ASSESSING QUALITY

<p>1. RESOURCES: TEACHERS, SUPERVISORS, RESEARCH CAPACITIES AND INFRASTRUCTURE (criteria text can be deleted, but please leave the numbering)</p>	<p>Instructions for drafting the Self-Evaluation Report (delete the text below; HEIs can adapt formatting and add as many charts, pictures etc. as they find necessary)</p>
<p>1.1. HEI is distinguished by its scientific/ artistic achievements in the discipline in which the doctoral study programme is delivered.</p>	<p>The holder of the doctoral study “Speech, Language and Hearing Disorders” is Faculty of Education and Rehabilitation Sciences. As a higher education institution, Faculty of Education and Rehabilitation Sciences was established 57 years ago and it has been a constituent unit of the University of Zagreb for almost 55 years. The scientific-research component of the Faculty falls under the field of social sciences. Until 2008, the Faculty was part of pedagogical sciences, with departments of defectology and speech and language pathology. The Ordinance on Scientific and Artistic Areas, Fields and Branches from 2009 divided the scientific activity of the Faculty into two new scientific fields - education and rehabilitation sciences and speech and language pathology. Today, Faculty of Education and Rehabilitation Sciences is the only higher education institution in the Republic of Croatia that has and delivers the university study programme of speech and language pathology and develops scientific-research and high professional work in scientific field of speech and language pathology. Scientific research of employees on the Faculty of Education and Rehabilitation sciences is included in all areas of language-speech communication disorders in children and adults, i.e. all branches of scientific field of speech and language pathology (communication and language disorders and specific learning disorders, voice-speech disorders, hearing impairments and swallowing and feeding disorders). Moreover, employees on the Faculty are active in promotional scientific activities that contribute to the popularity of scientific area of speech and language pathology, as well as the Faculty in whole. The holders of scientific progress in the area of speech and language pathology are the Department of Speech and Language Pathology and the Department of Hearing Impairments, which also deliver doctoral programme “Speech, Language and Hearing Disorders”. These departments are only such institutional units in Croatia, and based on the structure of their staff, the leading institutions in the area of speech and language pathology in this part of Europe. This is proven by the fact that teachers from the Department of Speech and Language Pathology and Department of Hearing Impairments have been supporting the popularity of speech and language pathology on other Universities, as well as the fact that they have been the main actors in the development of numerous university studies in speech and language pathology (for example, Univerza v Ljubljani, Univerzitet u Tuzli, University in Mostar, Ilia State University, Tbilisi, Georgia and so on). During more that 50 years of continuous presence and education of speech and language pathologists, these departments have strongly contributed to the fact that speech and language pathology has developed as an independent science compliant with global standards in the last decade. This is proven by systematic research that is comparable and compatible with international research, and validated through their application in practice.</p>

Scientific-research work has been a significant characteristic of the development of the Faculty of Education and Rehabilitation Sciences since its foundation. This scientific-research identity on domestic and international level is continuously recognised through relevant scientific research/projects, scientific publications, scientific publication of the Faculty, organisation of scientific congresses, carrying out scientifically founded postgraduate studies, active membership in international scientific organisations and editorial of scientific journals, as well as though other scientific activities.

Publication of scientific journals

Faculty of Education and Rehabilitation Sciences is the publisher of two journals: Croatian Review of Rehabilitation Research (CRRR) and Criminology and Social Integration (CSI) and is a co-publisher of the journal Logopaedia. All journals are available in digital form on the Portal of Croatian Scientific and Professional Journals Hrčak and their content is available free of charge (Open access).

CRRR is formed as international journal and is indexed in the following databases: EBSCO-Rehabilitation & Sports Medicine Source, SCOPUS, ProQuest-Health and Medical Complete, PsycINFO, CSA Linguistics and Language Behavior Abstracts, ERIH - European Reference Index for the Humanities, DOAJ-Directory of Open Access Journals, C.E.E.O.L.-Central and Eastern European Online Library, GESIS SocioGuide, Google Scholar, ScientificCommons and Hrčak. CRRR publishes studies from the area of speech and language pathology, education and rehabilitation sciences, biomedicine, humanistic and other social sciences, as well as from different areas of art connected to the questions of prevention, diagnostics and assessment, treatment and comprehensive support in community for persons with special needs and behavioural disorders.

Journal CSI is formed as the international journal intended for publishing studies from the area of criminology, penology and behavioural problems, fostering interdisciplinary and transdisciplinary openness by putting, in the centre of interest, persons and social groups that are either in conflict with the law and/or manifest problems in their behaviour in a broader sense. Journal is indexed in the following databases: Psycinfo, Criminal Justice Abstracts (EBSCO), Social services abstracts, Sociological abstracts and Hrčak.

Journal Logopaedia is the “youngest” journal of the Faculty (regular publication since 2014) that publishes original scientific, professional and review studies in the area of speech and language pathology and related sciences and professions. It is published by the Department of Speech and Language Pathology in cooperation with Croatian Logopedics Association. The Journal is indexed in Google Scholar and Hrčak.

Scientific projects

Scientists of the Faculty of Education and Rehabilitation Sciences are active in their application to international projects. For example, during the academic year 2017/2018, 38 projects were submitted, 19 international and 19 domestic. The list of scientific projects can be found here: <http://www.erf.unizg.hr/hr/znanost/znanstveni-projekti>. Up until recently, project activity was realised through financial support of the Ministry of Science and Education. The termination of these calls resulted in the use of other options for setting up national and international competitive projects. In the last several years, it is important to emphasise

projects by Croatian Scientific Foundation that resulted in employment of four doctoral students on the Department of Speech and Language Pathology.

According to activity reports of the Department of Speech and Language Pathology and Department of Hearing Impairments for 2018, the staff participated in 15 scientific projects. The support was given to research funded from different sources, both within the Republic of Croatia (Croatian Scientific Foundation, Ministry of Science and Education, University of Zagreb and so on) and within the EU Funds and other international organisations (for example, National Institute of Health).

Several specialised units that deal with specific areas of scientific activity have been active for a number of years within the Institute for Education-Rehabilitation Research at the Faculty of Education and Rehabilitation Sciences. Four of those units belong to the Department of Speech and Language Pathology (Laboratory for Psycholinguistic Research, Laboratory for Hearing and Speaking Acoustics, Child Communication Research Laboratory and Laboratory for Assisted Communication) and one to the Department of Hearing Impairments (The Laboratory for Research of Sign Language and Deaf Culture). These laboratories use technologically advanced and clinical-research methods and they are equipped with latest research material and sophisticated computer and other technical equipment and programs.

International cooperation in the area of science

Faculty has recognised the significant importance of being involved in international activities and is continually working on the establishment of new forms of cooperation (interinstitutional cooperation and participation in international projects), as well as on widening and improving existing cooperation. The Faculty confirms its involvement in international research area by participating on international scientific-research projects as a holder, partner or associate. So far, these projects have been realised through EU funds: IPA programmes and EU Commission programmes (ESF, FP7, ERASMUS, ERASMUS+), funds from the University of Zagreb, through bilateral University and Faculty cooperation, through the support of research funds from foreign universities and through the support of the World Bank. Croatian Science Foundation, Ministry of Science and Education, other ministries and foreign embassies in the Republic of Croatia have provided financial support to some international projects. Individuals and groups of researchers from the Faculty actively participate in networks of scientists recognised on European (for example, COST projects such as Enhancing children's oral language skills across Europe and beyond, COST IS1406; PI: James Law, University of Newcastle, Great Britain, 2015-2019) and global level.

As a coordinator or a partner, Faculty has successfully participated in several international professional programmes and higher education projects (intensive Erasmus programmes, Tempus projects, Comenius and so on). Signed agreements with a number of respective faculties and universities from Europe, Canada and USA prove this fact (for example, Charles University Prague, California State University Stanislaus, Ilija State University, Indiana State University, York University, etc.). Successful activity in Tempus projects ISHEDS (Identification and Support in Higher Education for Dyslexic Students) and EduQuality (Education for Equal Opportunities at Croatian Universities) has significantly contributed to

the development of support system for students with disabilities on the University of Zagreb, as well as other Croatian universities.

Scientific congresses

Faculty of Education and Rehabilitation Sciences has a long tradition of organising scientific congresses and symposiums. Some of them encompass both scientific fields (education and rehabilitation sciences and speech and language pathology), while others are specific and encompass reviews of scientific studies from a particular scientific field and/or branch.

Last "joint" congress, which encompassed the overall scientific scope of the Faculty was held in 2017 (ENCON 2017) in cooperation with the University of Ljubljana (Univerza v Ljubljani) and Indiana State University. The congress gathered 520 participants, of which 106 were from abroad. Moreover, Faculty of Education and Rehabilitation Sciences is the co-organiser of a series of congresses of Croatian speech and language pathologists. The last one was held in Osijek in 2015 and included 318 scientists and experts. Besides traditional congresses that are held regularly, Faculty has been participating in a large number of scientific symposiums every year, both as an organiser and co-organiser (e.g. EUNM-CDI or HURID).

Moreover, teachers from the Department of speech and language pathology continuously present results of their research on international and domestic scientific conferences. In 2018, for example, employees on the Department of Speech and Language Pathology participated in 22 international and 3 domestic scientific conferences.

Scientific productivity of teachers from two departments on the Faculty who are carrying out doctoral programme

Best indicators of scientific activity are of course numerous publications of teachers and associates in internationally acclaimed scientific publications, as well as in Croatian journals. Even though publications in international journals are extremely important in order to transfer research results efficiently to a wider audience of scientists and experts, it is important to emphasise that it is equally important to publish studies in Croatian journals in order to create and develop Croatian terminology and create literature in Croatian language. This is also important due to the specificity of particular topics within the scope of Croatian speech and language pathology (for example, specificities of acquiring Croatian language and characteristics of impairment of such system in children with developmental disorders, etc.).

Department of Speech and Language Pathology currently has 19 members, 15 are employees with scientific-teaching title and 4 are assistants. According to the data from Google Scholar, teachers on the Department of Speech and Language Pathology have reached 192.1 (range 3-494) citations in the last 5 years (from 2014 until June 2019), individually and in average. This illustrates the recognition and spread of scientific activity of teachers working on this doctoral programme. Moreover, 20% of papers were published with authors from international institutions (for example, in Clinical Linguistics & Phonetics, Behavior research methods, First Language, Infant Behavior & Development, Psychology). Teachers on the Department of Hearing Impairments (4

employees with scientific-teaching title) have reached 78 citations (49-123) in the last 5 years, individually and in average.

Moreover, according to the official activity report of the Department of Speech and Language Pathology for 2018, members of the Department published 20 scientific papers, 16 in internationally relevant databases (WOS, Scopus, etc.). It should be pointed out that 70% of papers from 2018 were published abroad. During 2018, members of the Department of Hearing Impairments published 3 scientific papers and 2 of them were published abroad.

(productivity of each teacher is illustrated in Table 1 and Appendix 23).

Competences of the head of the doctoral programme

Professor Jelena Kuvač Kraljević, PhD was the coordinator for the development and application of the proposal for a doctoral programme. She has been the head of the programme since its accreditation. Professor Kuvač Kraljević is active scientist in the area of speech and language pathology with over 70 published scientific papers cited in different databases with different impact; she is the author of two books and the editor of one handbook. According to the Google Scholar data, her papers were cited more than 400 times (without self-quotations) with h-index 10 and with i-10 index 13. She published papers in journals with high IF such as Proceedings of the National Academy of Sciences of the United States of America, PNAS, IP= 9.423; Language Acquisition IP = 1.73; Infant Behavior & Development = 1.515 or First Language = 1.254.

She was awarded the scholarship from the Government of Great Britain (The British Scholarship Trust), the Government of the Republic of Hungary, the University of Heidelberg, University of Graz and Southern University Odense.

She was the head of several competitive research projects, namely:

1) Adult Language Processing (HRZZ-UIP-2013-11-2421; 2014-2017; 398.987,50 HRK);

b) Interdisciplinary Approach to the Development of Linguistic-Cognitive Model of Dyslexia in Adults (HR.3.2.01-0247; 2015-2016; EU, Structural and investment funds-741.997,84 HRK);

c) Computer assistant for facilitating text entry of people with language disabilities (RC.2.2.08-050; 2014-2016; EU, Structural and investment funds - 2.361.178,13 HRK);

d) Prerequisites for academic equality: early recognition of language disorders (IPA4.1.2.2.02.01.c02; 2013-2015; EU - European Social Fund - 215.161,55 EUR (aprox. 1 650.000,00 HRK).

She was awarded several scientific and professional awards, namely:

1) National Science Award for 2017

2) Award of the Croatian Logopaedics Association for connecting logopaedic science and practice (2018);

3) Award of the Faculty of Education and Rehabilitation Sciences for scientific productivity in 2016

She is the member of Child Language Committee, International Association of Logopedics and Phoniatric (IALP) with mandate until 2025 and the main editor of Croatian Review for Rehabilitation Research (2018-2021). She was the organiser of all seven conferences European Network Meeting on Communicative Development Inventories (EUNM-CDI), which have been taking place biannually in Dubrovnik since 2006. The conference gathers researchers who apply Communicative

	Development Inventories (CDI) in their research on early language development.
1.2. The number and workload of teachers involved in the study programme ensure quality doctoral education.	<p>Doctoral study Speech, Language and Hearing Disorders encompasses teaching and extracurricular activities.</p> <p>Teaching activities Teaching activities on the doctoral programme include 8 obligatory and 16 elective courses. Of those 24 courses, teachers from the Faculty of Education and Rehabilitation Sciences are holders on 22 (17 courses held by teachers from the Department of Speech and Language Pathology and 5 from the Department of Hearing Impairments) and are teaching on 21 courses. This data illustrates that the majority of doctoral programme is based on the knowledge and work of teachers on the Faculty, with inclusion of several external associates due to their expertise in particular areas.</p> <p>17 employees of the Faculty of Education and Rehabilitation Sciences participate in teaching activities on the doctoral programme and 7 external associates. Due to such big number of involved teachers, teaching does not present significant strain on teachers regarding working norms. For example, during 2018, 9 teachers from the Department of Speech and Language Pathology participated in teaching activities on the doctoral programme (in line with the programme). They reached the norm ranging from 10 to 39 hours, i.e. in average 23.4 hours per teacher. Four teachers from the Department of Hearing Impairments participated with the total of 31 hours (in average 7.5 hours per teacher).</p> <p>Extracurricular activities and supervision The overall number of doctoral students enrolled in the doctoral programme is 11. As mentioned, 17 teachers of the Faculty of Education and Rehabilitation Sciences, as well as 7 external associates, are involved in teaching activities. Of 24 teachers involved in teaching activities, 19 are potential supervisors, i.e. teachers elected in scientific-teaching title. This ratio of teachers and potential supervisors is more than favourable (19:11, i.e. there are 1.7 potential supervisors on 1 student), i.e. it is much more favourable than the prescribed ratio 1:3. With teachers from the University of Zagreb involved in teaching activities on the doctoral programme, potential supervisors can also be other scientists from the country and abroad who can contribute to quality doctoral dissertations and support doctoral students due to their additional expertise and knowledge.</p> <p>Given that students are currently preparing their synopses, supervisors have not yet been officially confirmed. Doctoral programme is in its second year so only study advisors are appointed, namely 8 (eight) of them: 5 advisors with one student and remaining 3 advisors with two students. In addition, it is important to emphasise that Regulations on the Doctoral Programme Speech, Language and Hearing Disorders (Article 25) do not allow too much workload for supervisors, i.e. it is defined that one teacher can be a (co)supervisor to maximum of two students in one generation. This provision, along with ensuring quality of the doctoral programme, also ensures equal distribution of supervisor's workload.</p> <p>We believe that this positive ratio of advisors and doctoral students will continue during supervision. Also, it will contribute to optimum</p>

	<p>supervisor's workload as guarantee quality control of doctoral students through the procedure of acquiring PhD degree.</p>
<p>1.3. The teachers are highly qualified researchers who actively engage with the topics they teach, providing a quality doctoral programme.</p>	<p>According to Regulations (Article 24) on this doctoral programme, persons elected into scientific-teaching titles in higher education institutions and other scientific institutions in the country and abroad deliver doctoral programme courses. Upon the proposal submitted by teachers on doctoral programme and with the approval of heads of the doctoral programme, guest lecturers can teach on up to 30% of classes on one course, under the supervision of teachers. Guest lecturers can be persons not elected into scientific or scientific-teaching titles, but who hold a PhD.</p> <p>Teachers on this doctoral programme are highly qualified for subjects they teach. During the creation of a doctoral study plan and programme, teachers' CVs were analysed, as well as the number and quality of published papers in the last five years, which qualify the person for delivering the programme, i.e. which are relevant for the area of the doctoral programme. These data are incorporated in the proposal for the doctoral programme. Moreover, most of the teachers have demonstrated their active participation on scientific projects.</p> <p>According to data from Crosbi database, teachers involved in the execution of this doctoral programme published more than 200 papers in the last 5 years, i.e. the average of 8.4 papers per teacher. More than a half of these papers were indexed in the Scopus database (118 papers) with 175 citations (Scopus database) (Table 1). According to the data from Google Scholar, which measures a more comprehensive influence of published papers on the internet, the average citation rate of teachers involved in the delivery of this doctoral programme in the last 5 years (2014-today) amounts to 151.3 citations.</p> <p>Most of the teachers reached more than 50 citations in the last five years and some of them have extremely high citation rate (more than 500 citations in the last 5 years).</p> <p>The data indicate high qualifications of teachers, i.e. authorship in a number of scientific papers relevant for the area of study on a yearly basis, as well as the recognition of quality of these papers. This is illustrated in the fact that they are cited in international scientific databases.</p>
<p>1.4. The number of supervisors and their qualifications provide for quality in producing the doctoral thesis.</p>	<p>According to Regulations on Doctoral Study Speech, Language and Hearing Disorders (Article 25), doctoral student's supervisor can be a person elected into scientific-teaching title of assistant professor or a scientific title of scientific associate, or into equivalent title if he/she is a supervisor who acquired academic title abroad with scientific papers from the relevant scientific area. As a rule, doctoral student is appointed one supervisor who is a teacher on the programme, but if the research is interdisciplinary or the supervisor is not teaching on the study programme, co-supervisor can be appointed. If a student is appointed both a supervisor and a co-supervisor, both of them are responsible for the assigned part of the research and process of writing doctoral thesis.</p> <p>Supervisor who is not employed on the University or its constituent unit must sign the Cooperation and Responsibility Agreement with the Faculty's dean.</p> <p>Faculty Council adopts the decision on appointing a (co)supervisor upon the proposal by heads of the study programme, with their written consent on approving (co)supervision and other necessary documents.</p>

	<p>Of 24 teachers, 19 are elected into scientific-teaching title, deliver classes on the doctoral programme of speech and language pathology, meaning that there are 19 potential supervisors on the study programme. Such ratio of teachers and potential supervisors is more than favourable (19:11), i.e. it is better than the prescribed ratio 1:3. Given that 16 potential supervisors are teachers on the Faculty of Education and Rehabilitation Sciences with expert knowledge in specific parts of speech and language pathology, and that they publish papers in scientific field of speech and language pathology, it is clear that this results in high quality of supervisors.</p> <p>In addition, data illustrate that all teachers on the Faculty of Education and Rehabilitation Sciences who were teaching classes on doctoral programme during 2018 were involved in conducting one or more scientific projects (Croatian Science Foundation, Ministry of Science and Education, EU funds, American National Institute of Health, etc.).</p> <p>This is extremely important because of the possibility of doctoral students' active involvement in their teachers' scientific projects, as well as because of the realisation of international exchanges and cooperation. Being aware of the role scientific projects have for the overall scientific activity, especially for empowering future scientists (as well as supervisors!), our vision is to additionally strengthen the number and quality of scientific projects. Therefore, teachers on the Department of Speech and Language Pathology submitted three project proposals in the spring 2019 to the call issued by Croatian Science Foundation.</p> <p>During accreditation of this doctoral programme (2016), teachers delivering this programme were supervisors to more than 20 defended doctoral dissertations. In addition, Regulations on the Doctoral Study (Article 26) point out that teachers without experience in supervising, prior to being assigned their first supervision, have to participate on a workshop about supervision, organised by the University or other acclaimed international schools. Such workshop for teachers on the doctoral programme was organised in March 2018 (Appendix 7). All these data illustrate the systematic attention given to the strengthening of supervision and quality of supervising.</p> <p>Doctoral programme is currently in its second year and, according to the study plan and programme, i.e. teaching and extracurricular activities, doctoral student chooses one of three elective modules, i.e. chooses three elective courses within one module. The student chooses elective courses based on his/her doctoral dissertation topic with the help of a study supervisor. Apart from attending classes and passing exams, doctoral student prepares the topic of his/her doctoral thesis during the second year of study, which he/she has to publicly defend in 5th semester. That is when a doctoral student is appointed a supervisor and, if needed, a (co)supervisor.</p>
<p>1.5. The HEI has developed methods of assessing the qualifications and competencies of teachers and supervisors.</p>	<p>Faculty of Education and Rehabilitation Sciences continuously monitors qualifications of its teachers and supervisors. According to the existing model, supervisors of doctoral theses need to meet the criteria set out by the Rector's Committee of the University of Zagreb, as well as meet the conditions in order to be elected into (at least) scientific-teaching title of assistant professor. Supervisor can only be the person elected into scientific-teaching title of assistant professor and full professor.</p> <p>Internal evaluation of qualifications of teachers and supervisors is conducted on the Faculty of Education and Rehabilitation Sciences</p>

	<p>pursuant to Regulations on the Quality Assurance on the Faculty of Education and Rehabilitation Sciences (2013). The Regulations on Quality Assurance list the areas for quality assurance, and two areas evaluated through the activity of the Committee for quality management that are relevant for the doctoral programme are the evaluation of teachers and their scientific-research activity.</p> <p>Particular areas of quality assurance relevant for the doctoral programme are under the jurisdiction of the head of this doctoral programme, who continuously monitors the execution of the programme and analyses student surveys. Evaluation of teachers is carried out continuously during teaching (Appendix 8 and Appendix 9). Evaluation of teachers on the first year of the study programme showed that students gave high grades to most of the teachers (average grade = 4.31). It is important to mention that 10 (out of 15 teachers involved in the delivery of study programme on the first year) received average grade equal to or higher than 4.5. However, this evaluation resulted in lower values of teaching competences of two teachers. Of course, this will be taken into consideration in the execution plan for the next generation.</p> <p>This illustrates that particular areas of quality assurance, relevant for the doctoral programme, fall under the jurisdiction of the head of the doctoral programme who continuously monitors the execution of the programme on that level. Regular meetings of the heads of the study programme are being held every two months, with the need to arrange them more frequently. Heads of the programme initiate the adoption of special decisions on the delivery of classes on the doctoral programme in line with Regulations on Postgraduate Studies at the University of Zagreb.</p> <p>Supervisors' competences are defined in the first form used to submit dissertation topic and potential supervisor via OBAD system (DR.SC.-01). In the form, the list of relevant scientific papers of the supervisor in the last five years is filled in. The quality of supervision is assessed by accepting (or rejecting) the report by the Faculty Council (internal evaluation) and competent University bodies (external evaluation) from the start of the procedure of acquiring PhD degree until the defense of doctoral thesis.</p> <p>According to the Regulations on Doctoral Studies at the University of Zagreb, supervisor is obliged to submit written activity report of the student he/she is supervising to the Council of postgraduate studies once every two years. This obligation ensures regular control over supervising activity and solving potential difficulties during writing of doctoral thesis. Once a year, doctoral student submits his/her activity report to heads of the study in which he/she evaluates the advisor (later the supervisor) in 6 categories (DR.SC.-04) (Appendix 10). Moreover, study advisor reports on the activity of doctoral student via annual report submitted to heads of the study programme. Doctoral student is appointed an advisor until the official approval of a supervisor (and co-supervisor) on his/her doctoral thesis. Heads of the study are required to monitor student's progress, and the head of the study is obliged to organise a meeting with students at least once in a semester. This has been happening regularly so far.</p>
<p>1.6. The HEI has access to high-quality resources for research, as required by the programme discipline.</p>	<p>Doctoral programme is carried out in the premises of the Faculty of Education and Rehabilitation Sciences, University of Zagreb. For the purposes of delivering all types of teaching and extracurricular activities, students are given the opportunity to use all resources and equipment of the Faculty. Here we can emphasize resources in research laboratories</p>

operating within the Institute for Education and Rehabilitation Research, as well as within the Centre for Rehabilitation (teaching-clinical units of the Faculty of Education and Rehabilitation Sciences).

Laboratories

There are five laboratories within the Faculty of Education and Rehabilitation Sciences. Their research activity is connected to scientific field of speech and language pathology: Laboratory for Psycholinguistic Research, Laboratory for Hearing and Speech Acoustics, Child Communication Research Laboratory, Laboratory for Assisted Communication and the Laboratory for Research of Sign Language and Deaf Culture. All doctoral students have free access to all laboratory equipment and premises.

Laboratory for Psycholinguistic Research (POLIN - head Melita Kovačević, PhD).

The Laboratory for Psycholinguistic Research POLIN brings together associates from different professions (speech and language pathologists, psychologists, linguists, Croatists) for conducting interdisciplinary research with the aim of improving the understanding of speech development, speech processing, speech disorders, and their causes with the use of technologically advanced methods. The laboratory is currently working in the premises of BioCentar, but the goal is to move the Laboratory within the premises of the Faculty after the construction of the new floor. The Laboratory disposes with the equipment for recording evoked potentials, eye movement monitoring device, equipment for measuring reaction time and a large number of linguistic, psychological, and neuropsychological tests.

Laboratory for Hearing and Speech Acoustics (head Professor Mladen Hedjever, PhD).

The Laboratory's activities are focused on scientific research work on the specialised acoustic analysis of voice and speech, as well as court expert evaluations in the field of forensic phonetics and acoustics. The Laboratory was founded in 1995.

It is equipped with modern computer equipment and programs for sound recording and processing (computer program Adobe Audition), measuring microphones and instruments (Bruel and Kjaer), and specialised computer program for acoustic voice and speech analysis (Praat, Multi Speech, Multi Dimensional Voice Program, EZVoice). Furthermore, it is also equipped with specialised programmes for forensic phonetics and acoustics (DC Live Forensic, Clear Voice Denoiser). In addition to that, the Laboratory also possesses devices for examining functions of the vocal and speech tract (Nazometar and Elektroglograf).

Child Communication Research Laboratory (LIDEK - Head Professor Maja Capanec, PhD).

Child Communication Research Laboratory was founded in 2001 as Developmental Neurolinguistics Lab. It was founded based on the agreement between the Faculty of Education and Rehabilitation Sciences (University of Zagreb) and the Croatian Institute for Brain Research and was grounded on the long-lasting cooperation between biomedical and behavioural scientists. Since the beginning of its activity, the Laboratory has been active in the premises of the Croatian Institute for Brain

Research, but the goal is to move the Laboratory in new premises of the Faculty of Education and Rehabilitation Sciences in order to make it more accessible to the students. The Laboratory consists of the room for research work, room for conducting research (room equipped with one-way glass and recording equipment), room for recording and analysing data (space outside the room for conducting research consisting of the management structure for purposes of recording data and analysing it), as well as space intended for playing, which is also suitable for conducting interviews with parents.

Laboratory for Assisted Communication (head Professor Jasmina Ivšac Pavliša, PhD).

Laboratory was founded in 2013 within the context of a project conducted by four faculties of the University of Zagreb (Faculty of Electrical Engineering and Computing, Faculty of Education and Rehabilitation Sciences, Faculty of Graphic Arts and Faculty of Humanities and Social Sciences). Laboratory is active within the Rehabilitation Centre of the Faculty of Education and Rehabilitation Sciences. Different software solutions are being developed and evaluated in the Laboratory for Assisted Communication. They are intended for encouraging communication and language abilities in children with different developmental and acquired impairments. Laboratory for Assisted Communication possesses valuable equipment, assistive technology, involving around ten simple communicators, interactive walls, several different software (Snap, Core First, Communicator 5, Grid 3), 14 tablets, as well as communication software.

The Laboratory for Research of Sign Language and Deaf Culture (Croatian Sign Language-HZJ lab - head Professor Ljubica Pribanić, PhD).

The Laboratory for Research of Sign Language and Deaf Culture (Croatian Sign Language-HZJ lab) was founded in 2004 as a result of working on the bilateral US-Croatian project "A Basic Grammar of Croatian Sign Language".

The work in the Laboratory is notably committed to researching the linguistics of Croatian sign language. The description of linguistic profession of Croatian sign language will contribute to its recognition and acknowledgement as complete and natural means of communication for deaf persons in accordance with the Recommendation on Protection of Sign Language of the Council of Europe Parliamentary Assembly. Research is conducted in cooperation with native speakers of Croatian sign language, deaf persons, Association of the Deaf and Hard of Hearing of the City of Zagreb and foreign institutions such as the Department of Linguistics, University of Salzburg, Austria; Laboratory for Researching ASL, University of Purdue, West Lafayette, IN, USA and Department of Linguistics, University of Warszawa, Poland.

Laboratory possesses equipment for recording and analysing sign language; chroma key screen (blue), both fixed and portable, three digital cameras with appropriate equipment and professional computer program ELAN for analysing sign language on eMac computer.

Rehabilitation Centre

Rehabilitation Centre is a clinical unit and learning base of the Faculty of Education and Rehabilitation Sciences, which offers the use of its

	<p>practicums equipped with one-way mirrors, recording systems and rich equipment (large number of measuring instruments, scales, tests, etc.). Infrastructure of the Centre is available to all students free of charge and offers good conditions for conducting research, with relatively easy availability of clinical population of children and adults, and administrative support.</p> <p>Library and access to databases</p> <p>One of the prerequisites for successful scientific-research activity is the existence of a well-equipped library. The library of the Faculty of Education and Rehabilitation Sciences is a high education library, offering information support to scientific and teaching activity of its home institution with its collections and services. Library resources consist of scientific and professional publications, reference literature, master theses, doctoral dissertations, international and domestic professional and scientific journals. The amount Faculty spends on purchasing new books is increasing and the plan is to spend 180.000 HRK on new books in 2019, 200.000 HRK in 2020 and 250.000 in 2021 (official Faculty's financial plan was approved on the third meeting of Faculty Council on 17 December 2018). Moreover, portion of new textbooks was purchased using resources of the doctoral programme.</p> <p>Library is a big and light room, which, with its reading space, covers the overall surface of 128 m². Reading space is a separate room in which students can work in silence. It has 20 seating places, desks and internet access. The plan of the Faculty is to enlarge its space by moving it to new premises after construction of the new floor in 2020, at the latest.</p> <p>Processing of library resources is performed via computer program, all books on shelves are processed and are available in the library catalogue and Faculty's websites where you can perform search using several parameters. User records and borrowing books is performed via computer program.</p> <p>Students and teachers have access to 44 databases in social area of science via Portal of electronic sources for Croatian academic and scientific community. Moreover, 8 computers are placed in front of the library so that students can use them to search for literature. This ensures important prerequisites for studying and quality scientific activity.</p> <p>Using its funds, Faculty every year purchases the licence for program packages for statistical data processing (Statistica, SPSS and Nvivo), available both to teachers and students.</p>
<p>2. INTERNAL QUALITY ASSURANCE OF THE PROGRAMME</p>	
<p>2.1. The HEI has established and accepted effective procedures for proposing, approving and delivering doctoral education. The procedures include identification of scientific/artistic, cultural, social and economic needs.</p>	<p>Faculty of Education and Rehabilitation Sciences, the proposer of the doctoral programme, is experienced in proposing and conducting doctoral programmes. A postgraduate programme with the emphasis on research has been offered at the Faculty continuously for forty-three years. The programme was initially organised within the Centre for postgraduate studies at the University of Zagreb (initiated in 1972/1973). The Faculty of Education and Rehabilitation Sciences continued offering the programme in 1979/1980, as it was officially accredited to independently organise and offer a research-oriented postgraduate programme in a scientific area of special education. In 2003, a postgraduate research-based programme of special education studies was established. The study</p>

plan and curriculum of the proposed programme, approved by the University Senate on 24 April 2003, incorporated three major areas related to three graduate study programmes offered by the Faculty: speech and language pathology, inclusive education and rehabilitation and behavioural disorders. Along with basic courses, after the second year doctoral students selected one of six possible modules.

Dissociation of the speech and language pathology from the field of educational sciences and establishing it as a separate field within social sciences area (Act of Science and arts areas, fields and branches, Official Gazette 118/09) has set legal prerequisites for initiation and launching of a postgraduate programme in a newly established field of speech and language pathology.

The Faculty of Education and Rehabilitation Sciences at the University of Zagreb is the holder of the postgraduate doctoral programme Speech, Language and Hearing Disorders whose approval for execution was issued on 10 February 2017. Academic title doctoral student acquires upon the completion of the study, i.e. after the defense of a doctoral thesis is a doctor of sciences in the area of social sciences, scientific field of language and speech pathology (in short PhD). Most of the teachers on the doctoral programme are members of the Department of Speech and Language Pathology and Department of Hearing Impairments. The first generation of students (11) enrolled in the programme in academic year 2017/2018 are 10 masters of speech and language pathology and one master of education rehabilitation.

Postgraduate doctoral programme Speech, Language and Hearing Disorders is the highest earned educational level (degree) designed as a research-oriented programme of study intended for further scientific development of professionals who obtained a degree in speech and language pathology, but also graduates with degrees in other related areas whose scientific interests are aimed at issues embodied in speech, language and hearing sciences. Currently, the programme is organised at the undergraduate and graduate level at the University of Zagreb and, as such, represents a unique programme in the Republic of Croatia. Accordingly, it is justifiable that the highest earned educational degree – postgraduate level – is offered at the same University, at the Department of Speech and Language Pathology on the Faculty of Education and Rehabilitation Sciences. This is currently the only doctoral study in the field of speech and language pathology in Croatia.

Speech and language pathology (SLP) services are greatly needed in the society, which is reflected in high numbers of employed SLPs. The interest for studying speech and language pathology is big. According to the data published in the study *Becoming a student in Croatia* (Jokić, B., Ristić Dedić, Z., 2015), published by the Agency for Science and Higher Education (ASHE), speech and language pathology has been the most popular and desired study programme in the Republic of Croatia since 2010/2011. A high percentage of developmental disorders (approximately 10% of various language, speech and communication impairments in preschool and schoolchildren) and a growing number of neurological disorders and the overall ageing of Croatian population indicate that the need for services provided by SLP profession is increasing. Likewise, the necessity of the development of novel therapy approaches, clinical tests as well as technological and computer based solutions to serve as therapy and daily life support for individuals with developmental and acquired difficulties

are growing more pronounced. Development and application of novel solutions in diagnostics and therapy (in public and private sector) will be possible only with the support of basic theoretical and methodological knowledge provided by the new doctoral programme.

There is an expectancy for doctoral students to become competent in activities associated with applied and developmental research upon completion of their programmes by integrating various theoretical and methodological approaches within their research. European research network aims to increase the number of applied research initiatives to significantly surpass the number of studies focused on basic science research studies. Such applied research efforts can enhance national economies by primarily supporting small and medium sized enterprises with direct benefit for the society. Such research directly ensures the transfer of knowledge and newly developed services to the market. In order to achieve such transfer, it is necessary to develop high technology solutions characterised by wide applicability and long-term usability.

Direct products of applied research contribute to the social component of sustainable development as well, as they increase the quality of life of individuals with language, speech, hearing and communication disorders. For example, development of different computer software and applications created to assist individuals with language, speech and communication disorders focuses on the perspective of ensuring equal access to education, social inclusion and competitiveness on the labour market.

Cooperation with other higher education institutions and scientific institutes is achieved and fostered, with the aim of widening it, especially cooperation with international institutions. The cooperation with the Faculty of Electrical Engineering and Computing, University of Zagreb, Croatian Institute for Brain Research, School of Medicine, University of Zagreb, Faculty of Humanities and Social Sciences, namely the Department of Linguistics and Department of Psychology, is already achieved. Special long-lasting cooperation on teaching level exclusively is realised with the Clinic for Rehabilitation of Hearing and Speaking (SUVAG). In the last several years, it is established in the scientific-research activity through projects carried out on the Faculty, especially those funded through different EU Funds. During studying, international cooperation was actualised between Universities, i.e. this doctoral programme and doctoral programme in psychology on the University of Seville (Erasmus+ Programme Key Action 1 Mobility for Learners and Staff Higher Education Student and Staff Mobility). New cooperation with the University of Gävle, Sweden, will be established through project application. In the last several years, projects directed towards the development of technologies, products and services interesting to the market and business sector have been strengthened. Despite significant potential for the application of research, interest of the public business sector is missing. However, the development of speech and language pathology in the last decade, both scientific and professional, and the availability of European funds, resulted in successful cooperation with private sector, for example with Naklada Slap d.o.o., leading publisher of scientific and professional literature in the area of psychology, speech and language pathology, medicine and other related areas, or Omni Aspect d.o.o., directed towards the design and realisation of advanced information solutions for business systems.

<p>2.2. The programme is aligned with the HEI research mission and vision, i.e. research strategy.</p>	<p>Learning outcomes on the doctoral programme Speech, Language and Hearing Disorders are in line with the mission and vision of the Faculty, which is presented and structured in the Strategic Plan of Development of the Faculty of Education and Rehabilitation Sciences 2019-2023, a programme document available on http://www.erf.unizg.hr/hr/dokumenti/propisi (Appendix 6).</p> <p>Doctoral students are educated based on newest scientific insights in the scientific field of speech and language pathology, with the aim of influencing various segments of society and public policy. Education of doctoral students is based on high academic and ethical values, knowledge based on research and professional expertise, as well as on good infrastructural conditions. The mission of the Faculty is directed towards the development of scientific-research activity and is committed to scientifically founded education of professionals.</p> <p>Proposed doctoral programme is designed in accordance with the Strategy of Research, Technology Transfer and Innovation of the University of Zagreb, adopted in June 2014. Objectives set in that Strategy on the university level are in line with objectives set within doctoral programme Speech, Language and Hearing Disorders. They primarily refer to encouraging academic excellence by empowering research activity and creating attractive research environment in which the main approach to research is multidisciplinary. Such encouragement is directly reflected on innovation and interdisciplinarity, one of fundamental principles of this doctoral programme. Proposed doctoral programme aims at meeting the objectives set out in the Strategy by continuously ensuring programme quality (for example, introduction of new content important for labour market and direct involvement of doctoral students in research activities).</p> <p>Mission Faculty of Education and Rehabilitation Sciences, University of Zagreb is the only higher education institution in the Republic of Croatia that creates and offers well-established university level programmes in speech and language pathology, educational rehabilitation and social pedagogy in addition to developing and advancing high-quality research as well as clinical best practices in these areas. It is dedicated to educating future experts, education rehabilitators, speech and language pathologists and social pedagogists, founded on scientific knowledge, with the aim of including vulnerable groups / groups under risk into the community, by influencing individuals and social environments as well as influencing policymaking and social benefits, in compliance with the principles of professional ethics and responsibility.</p> <p>Vision The Faculty of Education and Rehabilitation Sciences aims to become an internationally visible higher education institution, recognised for its excellence in education and research as well as professional influence on the environment in which it operates.</p> <p>The following strategic objectives are recognised within the mission and vision: Strategic objective 1: Improvement of scientific-research work Strategic objective 2: Improvement of teaching activities</p>
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Strategic objective 3: Improvement of quality management system
Strategic objective 4: Strengthening professional influence on the environment
Strategic objective 5: Improvement of management and resources
Strategic objective 6: Improvement of international cooperation
Strategic objective 7: Improvement of identity visibility of three professions and visibility of the Faculty

SWOT analysis was carried out for each strategic objective. Strategic plan of the development of Faculty is illustrated as a table and indicates specific objectives within each strategic objective, measures to be implemented to achieve them, indicators based on which the realisation of the objective could be evaluated, persons responsible and deadline to implement a measure. The success of activities that are conducted continuously will be evaluated through comparison with indicators for previous years listed in annual activity reports.

Doctoral programme Speech, Language and Hearing Disorders largely contributes to the priority strategic objective: Improvement of scientific-research activity. Defined specific objectives are directly connected to doctoral study: Improve quality of doctoral programmes through publishing scientific papers with doctoral students, increased involvement of doctoral students in scientific projects and increase of international teaching activity on doctoral programmes; Encourage students' scientific activity; Improve recording and visibility of scientific activity on the Faculty.

Doctoral study will indirectly influence the realisation of other objectives within the mentioned first strategic objective: Increase the number of published A1 scientific papers; Increase the number of applications on competitive scientific projects; Increase active participation on scientific conferences; Improve working conditions of research laboratories.

Doctoral study is in line with the general strategy for the development of Faculty of Education and Rehabilitation Sciences, i.e. it contributes to the realisation of other mentioned strategic objectives. For example, doctoral study contributes to the realisation of strategic objective: Improvement of quality management system through the realisation of specific objective: Improve the implementation and evaluation of quality assurance by participating in the measure of establishing cooperation with institutions in country and abroad whose quality systems are recognised as examples of good practice, and integration of their experiences in regulations and procedures for quality improvement of the Faculty of Education and Rehabilitation Sciences.

Moreover, strategic objective Strengthening professional influence on the environment will influence on the realisation of the specific objective: Increase the influence of adopting public policies through this doctoral programme.

Compliance of this doctoral programme can also be monitored in strategic objective Improvement of management and resources in which a specific objective is to create resources for investing in further development of scientific, teaching and professional activities and Faculty equipment through the measure Regular admission of new generations of students in postgraduate study programmes.

Doctoral programme contributes to strategic objective Improvement of international cooperation, which will manifest itself indirectly in the realisation of specific objectives: Increase the number of international

	<p>scientific and professional projects; Increase the participation on international scientific and professional conferences; Increase the number of international scientific and professional projects.</p> <p>In the last four years (2014-2018), between 42 and 52 scientific projects were carried out on the Faculty on a yearly basis. In those projects, Faculty was the head or the partner (including research in duration of one or two years, funded through University support) and 14-17 of those projects were international. After the decrease in the number of projects, a significant increase has been recorded again in 2018. Room for improvement is seen in the increase of the number of competitive projects in which Faculty is the holder, i.e. in the increase of the number of applications for competitive projects.</p>
<p>2.3. The HEI systematically monitors the success of the programmes through periodic reviews, and implements improvements.</p>	<p>The Faculty of Education and Rehabilitation Sciences has clearly defined means of monitoring, ensuring and promoting quality, and a designated Committee for quality management that monitors Faculty's activity in all areas, as well as in organisation and realisation of undergraduate, graduate and postgraduate programmes.</p> <p>Indicators used to measure quality of postgraduate doctoral study are the following:</p> <ul style="list-style-type: none"> - new scientific projects that will include doctoral students in the realisation of project activities; - participation of doctoral students on scientific conferences which surpasses obligations defined within obligatory extracurricular activities; - publication of doctoral students' scientific papers of in co-authorship with a supervisor or publications of members on the project in which a doctoral student is involved; - doctoral students' evaluation of courses; - duration of study within defined timeframe; - number of defended doctoral theses. <p>Monitoring study programme quality is conducted through anonymous surveys filled in by doctoral students (Appendix 8). Anonymous surveys are conducted for each obligatory course independently, with the aim of evaluating teacher's competences and eligibility of content for the doctoral level. Moreover, surveys on the academic year level are also carried out. They give the insight into organisational and structural level of the programme (Appendix 9). All surveys are carried out and analysed by the head of the study programme. They serve as the feedback on the quality of teaching and content. Student is obliged to participate in procedures of evaluating quality of the study programme via anonymous surveys.</p> <p>Based on collected data from the survey filled in by doctoral students and based on the interview with doctoral students, a smaller revision of particular parts of the study programme has been proposed. Monitoring and analysing quality indicators is performed by the heads of study programme, who, according to these indicators, continuously work on the improvement of the doctoral programme.</p> <p>Activity based on survey results</p> <p>Conclusions of the annual summarised survey for academic year 2017/2018, drawn on the basis of individual evaluations are:</p> <ul style="list-style-type: none"> ▪ to reduce the number of teachers, i.e. not hiring teachers with low grades in the evaluation (grades lower than 3.5);

- to limit the number of teachers per area (hearing, language, speech);
- to reduce lecture hours (direct classes) on three obligatory courses (hearing, language, speech) for 30% and redirect that percentage of classes (15 hours) on the discussion with students on the drafts of their research.

Conclusions of the annual summarised survey for academic year 2018/2019, drawn on the basis of individual evaluations are:

- to separate teaching from presenting theoretical overview and methodological seminars;
- greater content concentration of elective courses on the needs of doctoral level.

Once a year students evaluate the performance of heads of the study and Student office for postgraduate studies. In the two-year evaluation of performance of these two bodies, students have shown high satisfaction with communication and engagement of heads of the study and head of the Student Office.

Students also evaluated the performance of study advisors. The analysis of these evaluations indicates the greatest dispersion of results and ranges from extremely satisfied to not satisfied at all. It is evident that some colleagues do not understand the importance of this role as well as its function and heads of the study will try to prevent this in the upcoming enrolment of generations through more frequent meetings with elected study advisors.

Once a year, doctoral student submits the report on his/her activity to Head of the study and Student office for postgraduate studies (form DR.SC.-04). Even though the primary purpose of this report is to analyse student's progress, it is also the reflection of the study in general. Through the report and communication with students, heads of the study are obliged to monitor students' progress and Head of the study is obliged to organise a meeting with students at least once in a semester. So far, meetings took place on 15 September 2017, 28 May 2018, 17 April 2019 and 1 June 2019.

Moreover, as the mechanism for quality review and performance of doctoral programme in the society for the purpose of examining the applicability of acquired knowledge, especially the transfer of knowledge into economy, the implementation of the evaluation of students who completed doctoral programme is planned. This type of evaluation can be conducted in minimum intervals of five years after doctoral students' obtain a diploma. When conditions are met, the survey will be conducted electronically.

The improvement of the study will be performed every three years, i.e. prior to the enrolment of new generation of students.

Given that this postgraduate doctoral programme is in its second year, holder of the study is not subjected to the provision from Article 12 of Regulations on the procedure of evaluation of doctoral study programmes at the University of Zagreb.

Scientific productivity of doctoral students' has increased during doctoral study. Four doctoral students have participated in the creation of a project, and concentration on publishing professional papers, which prevailed before enrolment in doctoral study, is gradually being replaced with

	publishing of scientific papers and participating on international scientific conferences (Appendix 11).
2.4. HEI continuously monitors supervisors' performance and has mechanisms for evaluating supervisors, and, if necessary, changing them and mediating between the supervisors and the candidates.	<p>Soon after enrolment, each doctoral student is assigned a programme advisor proposed by the doctoral programme board based exclusively on student's previous education and research interests. Programme advisor, along with the student, discusses the study plan (assisting with elective courses, counselling and supporting with research-related requirements, etc.) and submits a yearly student's progress report. Doctoral student is assigned the advisor until official approval of supervisor for his/her doctoral thesis. By choosing a supervisor, from fifth semester, each doctoral student has a supervisor who, after the official appointment, takes over all duties of study advisor for a particular doctoral student.</p> <p>A supervisor is responsible for student's research activities and through individual meetings and consultations helps the student in developing thesis proposal, thesis research study and in writing of the dissertation. If needed, the student can have a co-supervisor who has equal responsibilities as the supervisor.</p> <p>Doctoral student's supervisor can be a person with at least scientific-teaching title of assistant professor or scientific title of scientific associate or equivalent title if it is a supervisor who has acquired his/her title abroad, with scientific papers from relevant scientific area. In general, doctoral student is appointed one supervisor, with a teacher title on the study, but in case of interdisciplinary research or if the supervisor is not a teacher on the study programme, a co-supervisor can be appointed. If both supervisor and co-supervisor are appointed, each of them takes a particular part of research in advance, as well as procedures for writing the doctoral thesis.</p> <p>A teacher in the research-and-teaching and/or art-and-teaching title can be a programme advisor to a maximum of three students, and a supervisor or co-supervisor to a maximum of two students in one generation. Supervisors are required to submit yearly student's progress reports to the doctoral programme board on official forms of the University of Zagreb (DR.SC-04 i DR.SC-05). Supervisor who is not employed at the University or its part has to sign a Cooperation and Responsibility Agreement with the Dean of the Faculty.</p> <p>The decision on appointing a (co)supervisor is adopted by the Faculty Council based on the proposal of heads of the study, with their written consent on accepting (co)supervision and other necessary documents. Prior to their first supervision, future (co)supervisor has to attend a workshop for supervisors organised by the University or acknowledged international schools (Appendix 7). (Co)supervisor on a doctoral thesis cannot be the President of the Committee for Evaluation, member of the Committee for Evaluation of the Dissertation and Dissertation Defense Committee (Regulations on the study, Appendix 3). Each year a student reports on study advisor's activity, i.e. from the third year, activity of the supervisor. Considering the fact that until now, only one generation of students has been enrolled, and at the moment of drafting this programme, they are attending second year, it was only possible to analyse the activity of study advisors. The analysis of these evaluations indicates the greatest dispersion of results and ranges from extremely satisfied to not satisfied at all. It is evident that some colleagues do not understand the importance of this role as well as its function and Head of</p>

	<p>the study will try to prevent this in the upcoming enrolment of generations through more frequent meetings with elected study advisors.</p> <p>All difficulties that occur in the activity of supervisor and doctoral student that cannot be resolved by means of communication are resolved with the mediation of the Head of the study. If this does not solve the issue, heads of the study are involved. If these issues cannot be resolved, request for changing the supervisor is initiated via form DR.SC.-06 The request to change the topic and/or supervisor is submitted to the part of the University of Zagreb. According to the Article 23 of the Regulations on Doctoral Study, doctoral student has the right to change his/her supervisor or topic once, via written request and explanation of the supervisor on the University's form.</p> <p>Currently, the study does not have a developed mechanism for awarding successful supervisors because study has just begun. However, heads of the study plan to monitor supervisors' performance and develop the system for awarding the most successful.</p>
<p>2.5. HEI assures academic integrity and freedom.</p>	<p>Faculty of Education and Rehabilitation Sciences, as part of academic community, accepts general ethical principles in its scientific work, lectures and working ethics and relationships between students and teachers, by accepting and following principles set out in the Ethics Code of the University of Zagreb (2009).</p> <p>Faculty of Education and Rehabilitation Sciences cares for the compliance to high ethical standards in scientific-research activity, which is determined in general acts: Statute of the Faculty of Education and Rehabilitation Sciences lays out that students (including doctoral students) are requested to act in accordance with the ethics code of the members of academic community. Teachers, associates and scientists are responsible for violating ethics code pursuant to general acts of the University.</p> <p>Each scientific research has to obtain positive opinion of the Ethics Committee of the Faculty of Education and Rehabilitation Sciences. It provides the opinion on compliance of written materials about the research with the provisions from Ethics Code of the Committee for Ethics in Science and Higher Education in the Republic of Croatia, Ethics code of the University of Zagreb and Rules on the Activity of Ethics Committee of the Faculty of Education and Rehabilitation Sciences. According to the study programme, a student, based on his pre-synopsis, submits a request to Ethics Committee of the Faculty of Education and Rehabilitation Sciences for issuing the opinion on abiding to ethical principles in the research. Only after the consent of Ethics Committee is ensured, the student can formulate a final proposal of the dissertation topic. If necessary, Ethics Committee can request additional prerequisites from the applicant that need to be met before the beginning of research implementation (for example, obtaining opinions of ethics committees from other institutions, ministry's permits and so on).</p> <p>The overall protocol of the activity of Ethics Committee of the Faculty of Education and Rehabilitation Sciences can be found at: http://www.erf.unizg.hr/docs/propisi/ERF-EtickoPovjerenstvo-Protokol.pdf</p> <p>Moreover, a student or teacher can submit procedures or documents to Ethics Committee that are not in line with set standards of ethical activity</p>

	<p>in high education and sciences, as well as those that are in opposition to the autonomy and freedom in scientific research.</p> <p>Several mechanisms are ensured to prevent plagiarism. Regulations and practice guarantee public availability and transparency of procedure (public defense of the topic, public defense of dissertation, dissertation available in Student Office before the defense, public advertising of all phases in the procedure of acquiring doctoral degree, availability of dissertation in Faculty's Library and National University Library, etc.). Doctoral students shall submit the report on authorship when they submit final version of their doctoral dissertation.</p> <p>So far, there were no procedures in front of the Committee on non-ethical activity of teachers or students on the doctoral study. When publishing scientific papers, journals use programs to control plagiarism and, with the minimum of two obligatory reviews, ensure other ethical standards.</p>
<p>2.6. The process of developing and defending the thesis proposal is transparent and objective, and includes a public presentation.</p>	<p>The process of evaluating and defending doctoral thesis is determined in the Regulations on the Postgraduate University Doctoral Study Speech, Language and Hearing Disorders, namely Articles 39-43. http://www.erf.unizg.hr/docs/pdspjgs/ERF_Pravilnik_Doktorski_Poremecaji_jezika_govora_slusanja_2017.pdf</p> <p>Doctoral thesis is written in Croatian or English language and is defended on the language in which it is written. Conditions for submitting doctoral thesis for evaluation are fulfilled obligations defined in the study plan and programme. Doctoral thesis is submitted with written consent of the supervisor in three (3) binded (paperback) copies in Student office for postgraduate studies of the Faculty of Education and Rehabilitation Sciences.</p> <p>Faculty Council, upon the proposal of heads of the study, appoints the Committee for Evaluation consisting of at least three members. Members of the Committee can be persons with scientific or scientific-teaching title and other respective scientists, but at least one should not be a teacher on the study programme, or the employee on the study programme. Committee for Evaluation has to decide on its evaluation at least three months from their appointment.</p> <p>Based on submitted report of the Committee for Evaluation with the proposal to accept or reject it, i.e. after applied changes and modifications to the doctoral thesis, heads of the study will make a final proposal to the Faculty Council to accept the doctoral thesis and right to defend it or reject it. Faculty Committee makes final decision on acceptance or rejection of doctoral thesis.</p> <p>After accepting positive evaluation of doctoral thesis and approval to participate in its defense, Faculty Committee, based on the proposal of heads of the study, appoints the Dissertation Defense Committee on the same meeting. The Committee consists of at least three members and determines the date and place of defense. Dissertation Defense Committee can be the same as the Committee for Evaluation. The notification on the defense of the doctoral thesis is published on official websites of the Faculty and University, at least eight days before the defense of doctoral thesis.</p> <p>The defense of doctoral thesis is public and is done in front of the Dissertation Defense Committee. Defense consists of candidate's presentation and answering to Committee members' questions. Dissertation Defense Committee determines whether the student</p>

	<p>defended or did not defend his/her doctoral thesis with the majority of votes. Minutes are made on the defense process in Croatian language, and in case the defense is done in another language, minutes are made in that language.</p> <p>In the process of acquiring the title of the doctor of sciences, University forms are used (including the form for submitting dissertation topic and the evaluation of dissertation topic), which are available to students and teachers both publicly on websites of the University or via online database of doctoral students OBAD (forms DR.SC.-01 and DR.SC.-02). Whole application process and process of defending the topic is listed in the guide for the doctoral study in steps (so called Orange book). Appendix consists of the Defense Protocol of the Faculty of Education and Rehabilitation Sciences (Appendix 17) and the form of the University of Zagreb, the Form for dissertation topic approval (DR.SC.-01) and Form for the evaluation of dissertation topic (DR.SC.-02).</p>
<p>2.7. Thesis assessment results from a scientifically sound assessment of an independent committee.</p>	<p>The process of evaluating and defending doctoral thesis is outlined in Regulations on the Postgraduate University Doctoral Study Speech, Language and Hearing Disorders, namely in Articles 39-43. http://www.erf.unizg.hr/docs/pdspigs/ERF Pravilnik Doktorski Poremecaji jezika govora slusanja 2017.pdf</p> <p>Student can submit dissertation for the evaluation process after he/she has forwarded the assessment of at least one scientific paper in the area of his/her doctoral dissertation for further reviewing procedure. All forms of doctoral dissertation outlined by the Regulations on Doctoral Programmes at the University of Zagreb (2010) are deemed acceptable within current doctoral programmes. Thus, a doctoral dissertation can be written as a) a monograph or b) in a form of three topic-related research papers, published in journals indexed in Web of Science /ERIH databases. Three unbound copies of the finished thesis and the written supervisor's approval are required. The doctoral programme board suggests the Dissertation Defense Committee, whose members are denoted by the Faculty Council. The Committee has an odd number of members (minimum of 3, maximum of 5), whose research area is similar to the student's thesis topic. The Committee members cannot serve as supervisors or co-supervisors of the thesis and they need to be elected in research-and-teaching and/or art-and-teaching rank. At least one member of the Committee is a person who is not employed by the Faculty of Education and Rehabilitation Sciences nor is a teacher in the doctoral programme. The Committee evaluates the thesis and submits the committee report to the Faculty Council within the maximum period of two months since the day they received the committee member appointment. The members can issue their individual reports as well. Descriptive evaluation results are entered in the University of Zagreb's form Report on Dissertation Evaluation (DR.SC.-10). The Committee can accept the thesis, return it for revision according to the written comments or reject it. The thesis can be accepted or rejected if that decision is supported by more than one half of the Committee members. If the thesis needs to be revised according to the Committees' comments, it is returned to the student for corrections. After the corrections are entered, the evaluation report is further referred to the Faculty Council. The dissertation defense is scheduled after the positive Committee report is adopted during Faculty Council meeting.</p>

	<p>Dissertation defense is open to public and held in front of the Committee for Evaluation of Dissertation. Minutes of the defense protocol are kept. A dissertation is defended successfully if it is positively evaluated by the majority of the Committee members. In alignment with University's Regulations, a dissertation is evaluated using a pass/fail criteria (defended/not defended).</p> <p>After successful dissertation defense, the student is issued a doctoral diploma to confirm the completion of the programme and acquisition of the academic degree of doctor of sciences (Ph.D.)</p> <p>Doctoral diplomas are issued by the University of Zagreb and are given by the Rector of the Universtiy of Zagreb on the ceremony.</p> <p>Appendix consists of the Defense protocol (Appendix 17), Form for evaluation of dissertation topic (DR.SC.-10) Form with protocol and minutes of the dissertation defense (DR.SC.-11).</p>
<p>2.8. The HEI publishes all necessary information on the study programme, admissions, delivery and conditions for progression and completion, in accessible outlets and media.</p>	<p>All information on the doctoral programme are published on Faculty's websites. http://www.erf.unizg.hr/hr/studiji/doktorski-studij-poremecaji-jezika-govora-i-slusanja</p> <p>During enrolment, list of candidates for enrolment was published on Faculty's website. Information on public defense of topics and dissertation defenses are published. The link to database DABAR with publicly defended doctoral dissertations is available on the website.</p> <p>All information are sent to students to their email addresses.</p> <p>All important information about the study, such as conditions for enrolment, programme structure, conditions for progression, process for accepting dissertation topic, are available in the Guide for the doctoral study (so called Orange book) available in the Student office for postgraduate studies.</p>
<p>2.9. Funds collected for the needs of doctoral education are distributed transparently and in a way that ensures sustainability and further development of doctoral education (ensures that candidates' research is carried out and supported, so that doctoral education can be completed successfully).</p>	<p>The amount of all costs on doctoral study - from tuition fees, activities of various committees and for managing the programme - is unified, i.e. costs of those activities are in line with costs of other postgraduate studies available on the Faculty. Activities specific for this postgraduate study, such as the activity of committees in the process of defending theoretical and methodological review seminar papers in the area of future doctoral thesis, have costs proposed by the heads of the study that are approved by the Council of postgraduate university doctoral studies on the Faculty of Education and Rehabilitation Sciences (Appendix 12).</p> <p>One part of resources is intended for improvement of the quality of doctoral study. The intention was to equip the room for doctoral students with these resources in the first generation. Unfortunately, conditions for this are still not met so we are waiting for planned construction works on the Faculty. As soon as we get a room on the new floor, resources will be intended for its decoration in the form of computer equipment, programs and literature. As a supportive measure, in 2018 heads of the study approved one-time support to students in the amount of 700.00 HRK per person for co-financing the acquisition of necessary literature or some programs.</p> <p>According to the decision of the University of Zagreb, all employees of the University are entitled to doctoral education amounting to 50% of total tuition fees. Upon the proposal by the Dean of the Faculty, Dean Collegium adopted the decision that the remaining 50% should be covered by the Faculty (Appendix 13). This means that the Faculty covers the costs for four employees of the Faculty. Heads of the study are trying to reduce</p>

	<p>additional financial strain on students by covering enrolment costs within tuition fees (Appendix 15). It is also possible to pay annual tuition fee in two instalments (Appendix 14).</p> <p>Heads of the study are finding ways of financing doctoral research mainly through encouraging teachers to submit scientific competitive projects. Since the beginning of the study, two research projects have been submitted within Croatian Science Foundation on 10 January 2018. Both projects included doctoral students on this doctoral study. However, and unfortunately, projects did not meet financing criteria. Three new projects are being submitted within Croatian Science Foundation's call with the deadline on 24 May 2019. These three projects plan to include three students from the first generation and one from the new generation who will be enrolled in academic year 2021/2022. Some materials necessary for conducting research for doctoral thesis have been collected via Support to scientific and artistic research which were provided by the University of Zagreb until 2018 (for example, Neale Analysis of Reading Ability - NARA test).</p> <p>Heads of the study encourage scientific activity of students by covering entry fees for active participation on scientific conferences relevant for the area of their doctoral theses, as well as financial support for publishing papers in the English language on international scientific journals.</p>
<p>2.10. Tuition fees are determined on the basis of transparent criteria (and real costs of studying).</p>	<p>Tuition fees are determined based on objective costs gained through feasibility study. From the overall amount of tuition fee, 30% is spent on teaching costs, 35% on costs of activity related to writing doctoral thesis (for example, the activity of committees), 10% on costs for delivering study, 10% on overhead costs and 15% on the improvement of study programme (Appendix 16).</p>
<p>3. SUPPORT TO DOCTORAL CANDIDATES AND THEIR PROGRESSION</p>	
<p>3.1. The HEI establishes admission quotas with respect to its teaching and supervision capacities.</p>	<p>Faculty of Education and Rehabilitation Sciences establishes admission quotas taking into consideration the following:</p> <ul style="list-style-type: none"> - number of available supervisors and their workload; - capacity of supervisors in relation to presented interests of doctoral students who define the field of research in their cover letter and in the interview during classification procedure; - status of current doctoral students with their respective supervisors; - other obligations of teachers in undergraduate and graduate study, and their availability for doctoral study; - number of unemployed persons with obtained PhD title in the field of speech and language pathology, according to the data from Croatian Employment Office (there are no unemployed doctors of science in the Republic of Croatia). <p>The workload on teachers and supervisors is lower than prescribed and the proportion of supervisors and doctoral students, as mentioned before, is favourable (significantly lower than 1:3). Relatively small number of students enrolled in a doctoral study provides the quality of studying to all doctoral students currently enrolled in a doctoral study. Pursuant to Regulations on Doctoral Studies, heads of the doctoral study determine admission quotas according to the availability of research, teaching and</p>

	<p>supervising capacities and they propose to Faculty Council to issue a call. Admission quota depends on the number of interested candidates and the availability of supervisors.</p> <p>The exact number of candidates in each generation is determined, together with the aforementioned criteria, based on the assessment of possibilities of potential students and teachers to meet all obligations successfully, which is based on Faculty's general acts that clearly define obligations of (co)supervisors and doctoral students.</p> <p>The analysis of current workload on teachers (Table 1) illustrates that there is a discrepancy in the overall teaching workload among teachers. Nevertheless, even though some teachers demonstrate significantly high workload, in average, the workload on individual teacher on all levels of studies and all higher education institutions is 360 hours, whereby less than 30 hours fall under the norm on teaching on the doctoral study.</p> <p>In line with the aforementioned, heads of the doctoral study have assessed that it can enrol maximum of 12 new students every three years.</p>
<p>3.2. The HEI establishes admission quotas on the basis of scientific/ artistic, cultural, social, economic and other needs.</p>	<p>Speech and language pathology records significant development, the circle of its users is widening, the number of new insights is rapidly increasing, as well as new technologies. The number of children and persons with impairments in the area of communication is systematically increasing. Therefore, a large number of interdisciplinary research in the area of speech and language pathology is emerging in Croatia and in the world. They result in new insights and knowledge that can be applied in prevention and support given to children and persons with disorders. New insights in the mentioned area are successfully implemented in everyday practice. There are justified scientific needs of society for doctoral study in the area of speech and language pathology. The study trains students for jobs in science, higher education, business world and public sector. Given that speech and language pathology, along with the area of providing support to children and persons with disorders, has been demonstrating even greater importance with the emergence of complex communication systems and challenges (increase of bilingualism due to migrations, emergence of social networks, aging society, etc.), the need for scientifically educated experts in speech and language pathology is increasing. Scientific activity in speech and language pathology is interdisciplinary, and parts of speech and language pathology are integral parts of many studies in the area of biomedicine, social-humanistic area, public health, technology, etc. A speech and language pathologist is important part of research teams in a lot of research in mentioned areas.</p> <p>According to the data of Croatian Employment Office, all persons with doctoral degree in speech and language pathology are employed. It seems as though, despite particular number of speech and language pathologists with acquired title of master of science, obtained doctoral diploma additionally increases their chances for employment, especially due to their shortage.</p> <p>According to current records, there are only 23 speech and language pathologists with diploma in doctoral studies in the Republic of Croatia. This means that speech and language pathology cannot satisfy its own needs in scientific activity within its own field, let alone in interdisciplinary field of activity.</p> <p>Of the total number of persons with doctoral degree in speech and language pathology, 13 of them are employed on the Faculty of Education and Rehabilitation Sciences and the rest are scientifically active in other</p>

	<p>institutions which are mostly scientifically accredited (for example, Suvag Clinic). Several work on other high education institutions outside the Faculty of Education and Rehabilitation Sciences and some in health institutions or private practices.</p> <p>Moreover, in the last ten years, teachers on doctoral programme were either holders or associates on a large number of projects, which resulted in many commercially available products. They include measuring instruments used in the field of speech and language pathology for assessing language and communication abilities in children with developmental language disorders, dyslexia and autism or abilities in children with acquired language disorders such as aphasia, as well as applications and devices such as digital speech therapy set. There is the increased need for rehabilitation programmes, clinical instruments and technological and information programmes in society as types of support in rehabilitation, as well as in everyday life of persons with developmental and acquired disorders. Design and application of new diagnostic and rehabilitation solutions in clinical work (in public and private sector) demand theoretical and methodological knowledge that are offered on the doctoral study.</p>
<p>3.3. The HEI establishes the admission quotas taking into account the funding available to the candidates, that is, on the basis of the absorption potentials of research projects or other sources of funding.</p>	<p>According to the Article 12 of Regulations on Doctoral Studies of the University of Zagreb, doctoral student enrolled in university doctoral study can be:</p> <ol style="list-style-type: none"> 1. a person whose study costs are funded from the science and higher education system; 2. a recipient of Croatian or international scholarship; 3. a recipient of Croatian or international foundations; 4. a person whose studying costs are covered by Croatian or international or scientific or artistic research projects; 5. a person whose study costs are funded by the legal person of his/her employer; 6. a person who pays study costs by himself/herself. <p>Potential doctoral student has to say how he/she will ensure resources for doctoral study in his/her application for doctoral study. Upon the admission, in case costs will be covered by a third party (for example, doctoral student's employer), student attaches a statement in which the said institution is obliged to cover the costs of a doctoral study.</p> <p>This fulfils the obligation set out in Article 12 (2) implying that funding conditions are arranged during enrolment. Funding conditions of research (according to the same paragraph) are defined during appointment of supervisors and dissertation draft. According to Article 16, Committee for Evaluation of the Dissertation Draft and Committee for Appointing Supervisors, inter alia, also evaluate financial and organisational feasibility of the research. It is important to emphasise that it is possible to change funding source during studying.</p> <p>According to the Decision of the University of Zagreb (class: 602-04/11-04/14, from 13 May 2011), 50% of the overall tuition fee for a doctoral study is charged to doctoral students who are working on the University and who attend doctoral study on the University or its other constituent part that is relevant for a particular area, field or branch of his/her doctoral study. Faculty of Education and Rehabilitation Sciences covers the rest of the 50% of tuition fee for its employees. At the moment, 4 out of 11</p>

	<p>students are financed according to University model (50% of tuition fee covered by the Faculty of Education and Rehabilitation Sciences).</p> <p>During 2018, employees on the Department of Speech and Language Pathology and Department of Hearing Impairments were involved in 15 scientific projects and supports for research financed from different sources, within the Republic of Croatia (Croatian Science Foundation, Ministry of Science and Education, University of Zagreb, etc.) and from EU funds and other organisations (for example, National Institute of Health). We are aware that more teachers who submit their competitive research projects are needed for long-term financial and infrastructural feasibility of research conducted within doctoral dissertations. In a call published by Croatian Science Foundation this year, teachers of the Faculty of Education and Rehabilitation Sciences managed to submit three new projects that will include 4 doctoral students.</p>
<p>3.4. The HEI should pay attention to the number of candidates admitted as to provide each with an advisor (a potential supervisor). From the point of admission to the end of doctoral education, efforts are invested so that each candidate has a sustainable research plan and is able to complete doctoral research successfully.</p>	<p>According to Regulations on Doctoral Study Speech, Language and Hearing Disorders (Article 2), heads of the study appoint study advisor to the student upon admission. Study advisor monitors the student during studying and is available for all questions. Moreover, study advisor gives advice to the student when choosing elective courses, so that they are more connected with the future subject of the doctoral thesis. Study advisor is not necessarily the supervisor, but he/she helps the student with appropriate instructions throughout the area depending on student's preferences and recommends a supervisor who could guide the student during doctoral research. For example, according to the proposal of study advisor, heads of the study can approve the choice of a course or a module from other postgraduate doctoral studies in Croatia and abroad. The criteria for approving the admission of such course/module is the justification of the student that it is connected with the topic of doctoral thesis. Moreover, study advisor submits annual report on doctoral student's progress at the end of the first year of study.</p> <p>Given that most doctoral students are employed on other institutions and working positions (some even outside the Republic of Croatia), schedule of lectures, availability of advisors, supervisors and all teachers, as well as organisation of exams, is adapted to students' needs. Moreover, all teachers, staff from the student's office as well as heads of the study are available to students every day via email and telephone. This is extremely important because it is critical to ensure good communication and availability of information to doctoral students. Information on study programme is available on Faculty's websites, as well as on brochures provided to students upon enrolment. They contain all information, as well as plan of obligations on the study (so called Orange book).</p>
<p>3.5. The HEI ensures that interested, talented and highly motivated candidates are recruited internationally.</p>	<p>The admission on doctoral studies on the Faculty of Education and Rehabilitation Sciences, pursuant to Regulations on Doctoral Studies, is carried out via public call published in daily press and on Faculty's website. Public call, according to Regulations on Doctoral Study in speech and language pathology, is published at least one month before classes start. Faculty Council adopts the decision about the call for admission of students to doctoral study, based on the proposal by heads of the study. Public call, according to Regulations, has to include:</p> <ul style="list-style-type: none"> - name of postgraduate study programme - name of the holder of doctoral programme - conditions for admission - tuition fee

	<ul style="list-style-type: none"> - list of all necessary documents - deadline for submitting applications and other information. <p>In practice, process is structured in a way that, immediately after the decision is made (within the jurisdiction of Faculty Council that adopts the decision based on the proposal of the heads of the doctoral study), Faculty has to notify the University of Zagreb of that decision.</p> <p>Classification procedure for admission of candidates has two levels. First level of selection is based on the evaluation of submitted documents, whereby candidates who fulfil formal legal conditions from the call are selected and granted access to the second phase of selection. Second level of selection includes direct interview with all candidates based on the information candidate presented in his/her cover letter, concentrating on reasons for further doctoral education and research draft proposal. The overall procedure of selecting best candidates is described in point (3.6 Selection procedure of enrolled doctoral students is public and based on the selection of best candidates).</p> <p>A requirement for admission to the doctoral programme is a graduate (Master's) degree in speech and language pathology, or a entry level degree in speech and language pathology received before the Bologna process implementation to the Croatian higher education system, or a graduate (Master's) degree in the field of medical, social, and technical sciences area.</p> <p>The requirements for enrolment are identical for all applicants:</p> <ol style="list-style-type: none"> 1. a university graduate degree diploma (a total of 300 ECTS credits) 2. graduate study grade average higher than 3.5 3. fluency in English language 4. cover letter containing a short description of research interests and research plan 5. curriculum vitae in Europass <p>The right to apply for call under same conditions is ensured to persons with residence outside the Republic of Croatia. Two students from Bosnia and Herzegovina were enrolled in the first generation. Candidates who finished their studies outside the Republic of Croatia have to begin a procedure for recognition of gained qualifications at the Office for Academic Recognition of Foreign Higher Education Qualifications, i.e. attach the resolution on acknowledgement of obtained qualification. In the last two years, graduate experts from Slovenia, Georgia and Bosnia and Herzegovina demonstrated interest for studying on this programme.</p>
<p>3.6. The selection process is public and based on choosing the best applicants.</p>	<p>During admission of candidates to doctoral study, formal and informal criteria are respected. Admission is performed exclusively based on a public call published on Faculty's website, in one public newspaper and on websites of the University of Zagreb and is delivered to interested public via pre-applications, i.e. early demonstrated interest. In addition, call is open for 30 days, giving enough time to spread information and prepare necessary materials.</p> <p>All applicants who meet formal conditions are ranked according to defined criteria. The selection of candidates is done on several levels (first and second level of selection).</p> <p>First level of selection includes the evaluation of submitted documents. Heads of the study carefully examine average grades, CV, as well as cover letter of the applicant. Second level of selection includes the interview with applicants carried out by the heads of the doctoral study.</p> <p>Main criteria that determine the ranking of applicants include:</p>

	<ul style="list-style-type: none"> ▪ General motivation to enrol in a study programme (reasons for enrolment, expectations of the study, etc.); ▪ Existing experience in scientific activity (published scientific papers, participation on scientific projects, participation on scientific conferences, etc.); ▪ Acquaintance with the area and topic of potential doctoral dissertation, research objectives, etc.; ▪ Average grades on all passed exams on graduate university study; ▪ Fluency in English Language; ▪ Degree of support provided to the student by home institution (study funding, free days, etc.). <p>Knowledge of English language is tested through the interview with the heads of the study (second level of selection), with special emphasis on reading and understanding professional and scientific literature, as well as expression. Knowledge of English language is a necessary precondition for following classes and fulfilling exam obligations as well as writing doctoral thesis.</p> <p>Apart from obtaining information from applicants, the aim of the interview is for applicants to get understandable information about their future obligations. That is why the type of support in their own institution is additionally assessed, as well as how clearly they understand the seriousness of future obligations.</p> <p>The overall procedure is maximally objective - heads of the doctoral study assign points to each applicant based on provided information and delivered data, thus making the list of applicants that is published together with their points on Faculty's websites (call results), and with deadlines for admission. Final decision on delivering doctoral study, taking into consideration the number of applicants who fulfil conditions for enrolment, is adopted by the heads of the study. If a minimum number of students does not enrol (8 students), programme enrolment is postponed for the next year.</p>
<p>3.7. The HEI ensures that the selection procedure is transparent and in line with published criteria, and that there is a transparent complaints procedure.</p>	<p>List of candidates is published on Faculty's websites and delivered via email to all applicants with instructions that they have the right to file a complaint. Also, applicants can view documents and file a complaint about the results. The decision on admission and enrolment of applicants is considered judgement of first instance to which a person can file a complaint to the Dean. Applicants who did not fulfil admission requirements can file a complaint within eight days from its publishing on websites. Dean adopts a decision on complaints within eight days from the deadline and sends a letter to the person filing a complaint with the justification of the decision. Dean's decision is final.</p> <p>So far, there were no complaints on the Faculty of Education and Rehabilitation Sciences. All documents are archived and the rule on personal data protection is respected in line with regulations.</p>
<p>3.8. There is a possibility to recognize applicants' and candidates' prior learning.</p>	<p>Existing accomplishments are evaluated in the selection process (second level of selection) when heads of the study evaluate existing scientific work of applicants (activity on scientific projects, participation on scientific conferences, publishing of scientific papers, etc.) as well as obtained grades on graduate study.</p> <p>When enrolling or transferring to a study, the evaluation of other postgraduate programmes, i.e. programmes candidate went to or completed, is expected based on personal request. Applicants/students</p>

	<p>can submit a request to the heads of the study for recognition of completed content on master or (started or completed) doctoral programme. Based upon such requests, two students with master's degree in science in the area of speech and language pathology were exempted from attending three exams.</p> <p>Moreover, on the first year of study, students can acquire ECTS credits for activities described as "obligatory or elective extracurricular activities" completed at least one year before enrolment (for example, published scientific papers, participation on scientific conferences, etc.). Five students have used this option.</p>
<p>3.9. Candidates' rights and obligations are defined in relevant HEI regulations and a contract on studying that provides for a high level of supervisory and institutional support to the candidates.</p>	<p>Doctoral student, supervisor and holder of the study have to abide to all relevant acts of the Faculty of Education and Rehabilitation Sciences and University of Zagreb, including acts on ethical behaviour.</p> <p>Rights and obligations of doctoral students are prescribed in following documents:</p> <ol style="list-style-type: none"> 1) Regulations on Doctoral Studies at the University of Zagreb 2) Regulations on Postgraduate University Doctoral Study Speech, Language and Hearing Disorders (June 2017) 3) Doctoral Study Plan and Programme 4) Regulations on Ensuring Quality on the Faculty of Education and Rehabilitation Sciences (March 2013, amended in November 2015) 5) Education Agreement <p>Based on this, doctoral students have the following rights:</p> <ul style="list-style-type: none"> - right to access all resources of the Faculty of Education and Rehabilitation Sciences; - right to a study advisor until appointment of a supervisor; - right on consultations with subject teachers and head of the study according to the schedule; - right to a supervisor for writing doctoral thesis; - right to change supervisor or the topic of doctoral thesis, with written request and supervisor's opinion, i.e. original supervisor; - right to free expression on doctoral study and giving suggestions for improvement of study programme; - right to be treated by all teachers and staff on the doctoral study in line with the Ethics Code of the University of Zagreb; - right on the period of inactivity; - right to terminate doctoral study - other rights prescribed by law and general acts of the University of Zagreb, i.e. Faculty of Education and Rehabilitation Sciences <p>With every doctoral student, Faculty of Education and Rehabilitation Sciences, as the holder of the study, signs Education Agreement (Appendix 21) for the overall duration of the study. Agreement contains general provisions defining student's status, provisions relating to tuition and other rights and obligations of both contractual parties.</p> <p>When enrolling to a study programme, doctoral students are introduced with rules and obligations and are given printed versions of additional legal documents. Moreover, before enrolment, potential students can access information on study organisation, doctoral study programme as well as Regulations on Doctoral Study (Appendix 3) on Faculty's websites.</p>

	<p>Regulations on Doctoral Study ensure high level of institutional and supervisory support for students.</p> <p>Additionally, all enrolled students are given a study brochure (Orange book) on introductory class. It contains important information about the study programme, as well as individual plan of activities on the programme in which the student writes realised obligations and follows upcoming obligations.</p> <p>One way to monitor students and control quality is to make annual reports that include quantitative evaluation of doctoral students, as well as advisors/supervisors. It can be concluded that doctoral students' rights include the evaluation of study advisors/supervisors, particular courses, modules and teachers on a doctoral study, as well as Study offices for postgraduate studies. These reports are integral part of the overall evaluation of doctoral study based on which heads of the study submit their annual report.</p>
<p>3.10. There are institutional support mechanisms for candidates' successful progression.</p>	<p>The Faculty ensures institutional support for doctoral students' successful progression through doctoral study, primarily through the adoption and application of general acts ensuring the progression of doctoral students' on the doctoral study. They regulate the flow and structure of doctoral study, predictability of all obligations of students and supervisors, as well ensure quality advisory and supervisory support throughout all study phases (especially during dissertation writing).</p> <p>With the aim of easier execution of obligations, Head of the study organises additional workshops. For example, on 16 and 17 July 2018, two-day workshop was held on which doctoral students presented first ideas about their doctoral thesis. Two heads of the study led the workshop. Moreover, on 17 and 18 April 2019, a workshop was organised about writing scientific papers and it was held by Chapin Rodriguez, PhD.</p> <p>It is important to emphasise that the overall plan and programme of the doctoral study is created to systematically encourage and support students in writing their doctoral theses. For example, prior to the public defense of their topics, students are obliged to write and defend review seminar paper in front of the commission in the area of doctoral thesis, seminar paper from the area of methodology of the doctoral thesis and pre-synopsis. This helps students in their work on planning their doctoral thesis systematically, but also helps them have systematic feedback (from officially assigned commission, colleagues and public) about their dissertation.</p> <p>Moreover, resources from doctoral study provide students with annual financial support in the amount of 700 HRK per student. Students can spend it on literature, equipment and programs, participation fees, other reasonable costs for scientific activity and fuel costs (for students commuting from distant areas).</p> <p>Besides, students have:</p> <ul style="list-style-type: none"> ▪ the right to use laboratories and all equipment of the Faculty of Education and Rehabilitation Sciences free of charge; ▪ beneficial participation fees for congresses and conferences organised by the Faculty of Education and Rehabilitation Sciences; ▪ some doctoral students use resources from different projects and supports lead by teachers from the Faculty of Education and Rehabilitation Sciences for their research; ▪ right to use statistical program packages (SPSS; Statistica), free of charge;

	<ul style="list-style-type: none"> ▪ right to access databases and library content; ▪ right to free access to databases intended for research and academic community; ▪ right to financial support in publishing in the English language. <p>First generation of doctoral students has in the last 5 years published 5 scientific papers and participated on 12 scientific conferences with financial support from the Faculty of Education and Rehabilitation Sciences, namely through different sources for project funding (Appendix 11).</p>
<p>4. PROGRAMME AND OUTCOMES</p>	
<p>4.1. The content and quality of the doctoral programme are aligned with internationally recognized standards.</p>	<p>This postgraduate study enables doctoral students to perform complex research tasks in order to enable them to develop research careers as independent researchers or members of interdisciplinary research teams in the field of speech and language pathology. This doctoral programme encompasses all four branches of scientific field of speech and language pathology: communication and language disorders, specific learning disability; voice and speech disorders; hearing loss; swallowing and feeding disorders. However, special emphasis is placed on research methodology and application of current assessment materials in addition to comprehensive research designs aiming to examine the nature of the phenomena of interest, correlations between them, as well as the causes of their origin. Focusing on current research trends and topics, involvement of leading researchers in the area of speech and language pathology in the doctoral programme and collaboration with other researchers and doctoral programmes represent some of the principles included in the creation of this programme which are in accordance with establishing doctoral programmes within the Bologna process framework. Outcomes of doctoral study programme Speech, Language and Hearing Disorders correspond to outcomes prescribed in Croatian qualification framework, i.e. level 8.2, which relate to acquiring competences in scientific-research work measurable via published scientific papers in international journals. Teaching covers only 20% of the overall student workload in a three-year period in which all courses are oriented towards independent students' research and providing statistical-methodological-ethical knowledge and specific orientation towards recent insights in the area important for student's dissertation. One portion of courses, as well as series of organised workshops belonging to obligatory extracurricular activities, are oriented only towards the development of generic skills such as academic writing, presenting data and writing scientific papers. Programme ensures three-year orientation towards the development of research experience. In the first year, students are obliged to present and defend one seminar paper concentrated on theoretical overview of the area of his/her future doctoral thesis. Upon successful presentation of potential topic, in the second seminar paper, oriented towards methodology, the student presents a way in which proposed topic could be carried out. These two seminar papers are direct prerequisites for writing a synopsis.</p> <p>Doctoral study Speech, Language and Hearing Disorders is in its objectives, content and execution, similar to the renowned doctoral programmes in USA, for example:</p>

- Research Doctoral Degree in Speech and Hearing Science; University of Illinois

<http://shs.illinois.edu/Graduates/Doctorate/Philosophy.aspx>

- Ph. D. Program in Speech-Language-Hearing Sciences; Graduate School and University Center of the City University of New York (CUNY) <http://www.gc.cuny.edu/Page-Elements/Academics-Research-Centers-Initiatives/Doctoral-Programs/Speech-Language-Hearing-Sciences>

and European, such as:

- doctoral study Speech and Language Sciences, PhD; University of Newcastle <http://www.ncl.ac.uk/postgraduate/courses/degrees/speech-language-sciences-mphil-phd/#training&skills>

The overview of learning outcomes from CUNY result in a big similarity between two doctoral programmes. For example, outcomes of a doctoral programme on CUNY are directed towards student's ability to demonstrate familiarity with literature, ethical principles and application of statistical analyses, different measuring instruments and research equipment. Moreover, students are required to shape research draft and demonstrate basic writing skills for writing papers that demand synthesizing and critical overview of literature in a particular area of speech and language pathology. Mentioned outcomes are overlapping with the outcomes of our doctoral programme. Moreover, it is evident that both programmes are primarily oriented towards ensuring outcomes that make up a starting point for the development of scientific thinking.

As is the case on other European universities, two types of doctoral dissertations are allowed: scientific monography or three scientific papers published in journals (Scandinavian model), and supervision of both types can be appointed to the person with necessary qualifications in the area of chosen topic of doctoral thesis. Committee for Evaluation and Dissertation Defense Committee have to be independent and objective. To ensure this, supervisor is not allowed to participate in these steps.

Orientation of doctoral study towards the development of research competences of young researchers, with the aim of scientific improvement of speech and language pathology, gaining new insights for better understanding of language, speech, voice and communication disorders and swallowing disorders is in line with recommendations of Croatian Logopaedics Association and biggest logopaedics association ASHA. On its websites (<https://www.asha.org/Students/faq-pursuing-phd/#1>), ASHA provides the explanation of the importance of doctoral education in the area of speech and language pathology.

Doctoral study puts speech, language, voice, swallowing, communication and hearing disorders, i.e. those phenomena of human activity that are in their nature complicated and asks for interdisciplinary and multidisciplinary approach in research. Considering this, it is expected that most of the research will be interdisciplinary. For example, one of the drafts is oriented towards studying comprehension process in reading, which besides the control of linguistic capabilities demands control of a series of other cognitive skills such as memory, inhibition, and flexibility. That is why supervision will include a psychologist from the University of

	<p>Seville. Or a draft based on testing phonological processes in the development of prerequisites for reading and writing that cannot be realised without the support from a linguist-phonologist, which is planned to be achieved.</p>
<p>4.2. Programme learning outcomes, as well as the learning outcomes of its modules and subject units, are aligned with the level 8.2 of the CroQF. They clearly describe the competencies the candidates will develop during the doctoral programme, including the ethical requirements of doing research.</p>	<p>Study programme Speech, Language and Hearing Disorders directs students towards acquiring competences and measurable learning outcomes as follows:</p> <ul style="list-style-type: none"> ▪ recognise actual problems in speech and language pathology, independently apply appropriate methodological principles for solving them, and orally and in writing discuss obtained empirical data; ▪ organise and be active in a research team with the aim of developing new knowledge; ▪ plan, implement and participate in scientific, fundamental, developmental and applied projects related to subjects specific for speech and language pathology, but also those that demand interdisciplinary approach to research; ▪ apply transfer of knowledge and technologies in upbringing and education, social protection and healthcare; ▪ shape, influence and advocate policies in upbringing and education, healthcare and social protection related to the needs of children, young persons and adults with language, speaking and communication disorders, swallowing disorders and hearing impairments; ▪ take over moral responsibility for activities of researching and influence it has on the wellbeing of society; ▪ be responsible for one's own professional development. <p>Specific orientation of students within elective courses, which is connected to the topic of their doctoral dissertation, additionally encourages the development of competences in particular area of speech and language pathology (language, communication, voice, speech, swallowing and hearing).</p>
<p>4.3. Programme learning outcomes are logically and clearly connected with teaching contents, as well as the contents included in supervision and research.</p>	<p>Learning outcomes of the doctoral programme are organised in a way that outcomes resulting from statistic-methodological-ethical courses and courses oriented towards the development of basic generic skills are concentrated in obligatory courses. Outcomes of elective courses - shape and apply as well as critically evaluate scientific insights from specific areas of speech and language pathology - a student is choosing by himself/herself through elective courses, by choosing the area of speech and language pathology in which he/she is most interested - language, communication, voice, speaking, swallowing, hearing.</p> <p>Therefore, resulting outcomes are:</p> <ul style="list-style-type: none"> ▪ critically think about new insights in the area of speech and language pathology and either integrate them into existing knowledge system or recognise new research problems; ▪ independently assess and evaluate different types of research drafts and discuss their suitability; ▪ independently apply basic and complex statistical methods and program packages with the aim of solving research questions;

	<ul style="list-style-type: none"> ▪ independently interpret collected data within the scope of scientifically founded theoretical schemes and approaches.; ▪ support ethical principles in scientific activity with the aim of taking and developing social responsibility in implementation of different types of research in speech and language pathology.; ▪ apply appropriate communication strategies with the aim of promoting new insights related to prevention and intervention in speech and language pathology.; ▪ shape, apply and critically evaluate scientific insights in the specific part of speech and language pathology (language, communication, voice, speech, swallowing and hearing).
<p>4.4. The doctoral programme ensures the achievement of learning outcomes and competencies aligned with the level 8.2 of the CroQF.</p>	<p>Doctoral study programme ensures three years of scientific research. In the first year, competences are acquired through obligatory courses for independent research work (primarily methodological-statistical-ethical). From second year, students are exclusively oriented towards writing doctoral thesis via three elective courses. They are chosen based on doctoral dissertation topic. Orientation towards one's research from the first year of study ensures a three-year continual research work, even for full-time students who need to obtain their diploma by the end of fourth, i.e. sixth, year, depending on the contract.</p> <p>The data on publishing such papers in journals or their presentation on scientific conferences tells a lot about the high quality of seminar papers students write under the supervision of their respective teacher (Appendix 11). Moreover, under the supervision of a study advisor, students develop experience in participating on scientific conferences.</p>
<p>4.5. Teaching methods (and ECTS, if applicable) are appropriate for level 8.2 of the CroQF and assure achievement of clearly defined learning outcomes.</p>	<p>Teaching methods are diverse and range from ex cathedra to workshops and laboratory studying methods. It is essential to note that course content is only minimally presented in a classic teaching manner. It will mostly be structured in an interactive manner with tasks encouraging critical thinking, teamwork or supporting active participation of students in the learning process. Interaction is ensured with higher number of teachers on three courses oriented towards presenting recent insights in areas of language, speech, communication, voice, swallowing and hearing (courses Communication and language disorders and specific learning impairments, Voice-speaking disorders and swallowing disorders and Hearing impairments).</p> <p>Apart from teaching, doctoral workshops are strongly encouraged, as well as doctoral seminars in which students' activity is ensured on a supervision level in writing the synopsis of future doctoral research. Therefore, on 16 and 17 July, first doctoral workshop was held. It was led by Jelena Kuvač Kraljević, PhD., and Maja Ceganec, PhD. It was oriented towards presenting, substantiated representation and evaluation of doctoral dissertation topic. Workshop was organised as interactive associative learning that encouraged students to ask questions and critically think of different ideas of their colleagues. On 17 and 18 April 2019, a new workshop was held, <i>Designing high-quality research projects and publishing them in international journals</i>. It was led by Chapin Rodriguez, PhD with the aim of studying basic skills in designing research projects and writing scientific papers to be published in international journals.</p> <p>It is important to point out that organised classes make up only 20% of student's workload. The biggest part is oriented towards obligatory</p>

	<p>extracurricular activities that demand significant engagement and encourage the development of generic skills.</p> <p>The structure of ECTS credits in obligatory and elective courses are organised to cover all students' activities/requirements. Overall ECTS credits earned by attending and passing obligatory and elective courses is 37 ECTS (20%). 47% of the activities are aimed at gaining practical experience in other activities, including writing and publishing papers, active participation on conferences, public speeches, activities related to popularisation of science to public community. The final 33% of activities are focused on writing doctoral thesis (preparation of methodological framework, public defense of doctoral thesis' topic, individual consultations, research activities and thesis writing).</p>
<p>4.6. The programme enables acquisition of general (transferable) skills.</p>	<p>Doctoral study Speech, Language and Hearing Disorders has one special obligatory course Academic Writing and Communication with the Public, which is oriented directly towards acquiring generic skills. However, other courses, their content and methodological approaches aim at acquiring working competences and developing generic and transferable skills. Generic skills developed through all courses include linguistic and professional literacy, conceptual skills (collection and organisation of data, defining and solving problems, innovative and systematic thinking), personal skills (responsibility towards person's academic and research work, flexibility, time management, interdisciplinary cooperation) and socially relevant skills (social responsibility, cooperation with local community, civil engagement, ethical thinking). Doctoral study programme foresees a number of public presentations of research papers (one's own or someone else's). That way, doctoral students illustrate and practice their generic and transferable skills - time management skills, leading discussions, creative and analytical thinking, as well as transfer of knowledge. Acquiring transferable skills is encouraged by including students in the preparation of teaching materials and literature for particular courses, or their involvement in teaching activities on undergraduate or graduate study.</p> <p>Elective extracurricular activities represent a series of formalised activities, which encourage the development of research and metacognitive learning, critical approach to new information, teamwork, strengthening of communication skills and a series of other academic generic skills. Within the same activity, workshop Designing high-quality research projects and publishing them in international journals was held and led by Chapin Rodrigues, PhD. It was concentrated exclusively on the development of generic skills.</p> <p>Doctoral study continuously informs students of other relevant schools and workshops. For example, one student applied for participation on Training School on Qualitative and Mixed Methods in Writing Research; Ss. Cyril and Methodius University in Skopje, Macedonia, upon the proposal by heads of the study, in 2018 and another went to 11th Cochrane symposium in Split (heads of the study sent e-mails to all doctoral students on 27 February 2019). All active participations on workshops and schools are evaluated by heads of the study within elective extracurricular activities.</p>
<p>4.7. Teaching content is adapted to the needs of current and future research and candidates' training</p>	<p>Flexibility and orientation towards individual research needs of doctoral students is one of basic characteristics of the doctoral programme. This is visible through:</p>

<p>(individual course plans, generic skills etc.).</p>	<ol style="list-style-type: none"> 1) the possibility to choose elective courses in different areas of speech and language pathology; 2) the possibility to choose elective and obligatory courses on other doctoral programmes; 3) creating seminar and methodological review papers based on person's research work; 4) the possibility to participate in training oriented towards acquiring generic competences and active participation on scientific international and domestic conferences in order to disseminate acquired knowledge in speech and language pathology, as well as improve teaching competences. <p>Appendix 22 contains examples of individual student's development plan, which clearly reflects the adaptability of the programme to student's preferences and dynamic of his/her research activity.</p>
<p>4.8. The programme ensures quality through international connections and teacher and candidate mobility.</p>	<p>Doctoral programme successfully passed the process of initial evaluation of two international reviews, which were both positive (Appendix18). Within ERASMUS+ programme (Key Action 1 Mobility for Learners and Staff Higher Education Student and Staff Mobility), Cooperation Agreement was signed between this doctoral programme and Doctoral programme Psychology on the University of Seville, Spain. This programme enables a three-month mobility of one student a year and a one-week mobility of teachers (Appendix 19). First application for this mobility will be available in February 2020, and doctoral student's three-month study visit to the University of Seville could be realised in academic year 2020/2021.</p> <p>Moreover, within Research project which is currently being evaluated (Croatian Science Foundation, deadline 24 May 2019), the cooperation with the University of Gävle, Sweden, was established and it will include one doctoral student from next generation and ensure the mobility of a colleague Mårten Eriksson to the University of Zagreb.</p> <p>Nevertheless, doctoral programme provides students:</p> <ul style="list-style-type: none"> ▪ with information on doctoral students' mobility and calls via Office for international cooperation (Appendix 20); ▪ with financing international teachers in doctoral study's activity, be it within obligatory or elective courses (for example, professor Andrea Marini in the course Developmental and Acquired Language Disorders) or extracurricular obligatory activities (for example Chapin Rodrigues, PhD within workshop Designing high-quality research projects and publishing them in international journals); ▪ the programme encourages doctoral student's participation on international conferences with the aim of disseminating knowledge and improving generic skills, but also the development of international cooperation (for example, one student and head of the study prof. Jelena Kuvač Kraljević, PhD participated on CDI III Workshop in Oslo on 14 and 15 November 2018. They are currently working on an article based on that presentation with colleagues from the University of Helsinki and Tartu); ▪ the programme enables Scandinavian model of writing doctoral thesis - publishing papers in international journals with financial support from the study;

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| | <ul style="list-style-type: none">▪ the programme enables foreign associates to be (co)supervisors on doctoral theses and that doctoral thesis can be written in a foreign language. |
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Heads of the study began to promote their programme by disseminating information about it in some countries through project cooperation of teachers, primarily with Slovenia (University of Ljubljana), Bosnia and Herzegovina (University in Tuzla) and Georgia (State university Ilija in Tbilisi). During study visit of two students from Georgia and two from Tuzla within ERASMUS+ project Assisting Better Communication - ABC, head of the study presented interested students with the study and gave them detailed information on the possibility for enrolment. In addition, doctoral study is promoted via social networks (Facebook).

III TABLES

Table 1 Teaching Staff Section A shows the number of publications in the last five years according to the Croatian Scientific Bibliography (CROSBI). Data on citations published in the last five years (section B) and on h-index (in the last five years / in total) of teachers (section C) were downloaded from the Scopus database on 5.9.2019. 5-years includes the period from 1.1.2014. to 31.12.2018. (the report from the Scopus base for each teacher is provided in Appendix 23).

Teacher (name and surname/ institution*) and link to CROSBI database**	Scientific (or scientific-teaching) title and area/field of election	A	B	C	Course (and course type) within the programme and total workload	Workload in norm-hours***
Draženka Blaži https://www.bib.irb.hr/pregled/znanstvenici/190290	Full professor Area of Social sciences; field of speech and language pathology	4	0	0/2	Voice, speech and swallowing disorders	12
					Childhood apraxia of speech	18
					Workload in 1st and 2nd cycle	337
					Workload at other HEIs	95
					Total workload	462
Ana Bonetti https://www.bib.irb.hr/pregled/znanstvenici/257156	Assistant professor Area of Social sciences; field of speech and language pathology	5	1	1/1	Voice, speech and swallowing disorders	12
					Multidimensional assessment of voice quality	0
					Workload in 1st and 2nd cycle	250
					Workload at other HEIs	0
					Total workload	262
Luka Bonetti https://www.bib.irb.hr/pregled/znanstvenici/256892	Assistant professor Area of Social sciences; field of speech and language pathology	7	0	0/1	Hearing impairments	0
					Listening and communication in adults with hearing loss	24
					Workload in 1st and 2nd cycle	297
					Workload at other HEIs	53
					Total workload	374
Sandra Bradarić-Jončić https://www.bib.irb.hr/pregled/znanstvenici/161723	Full professor Area of Social sciences; field of speech and language pathology	4	1	1/3	Hearing impairments	9
					Inclusive education of deaf children and youth	0
					Workload in 1st and 2nd cycle	248
					Workload at other HEIs	0
					Total workload	257
Željka Car https://www.bib.irb.hr/pregled/znanstvenici/207783	Full professor Area of technical sciences; field of electrical engineering	22	41	4/6	Augmentative and alternative communication – intervention and technology aspects	15
					Workload in 1st and 2nd cycle	0
					Workload at other HEIs	448
					Total workload	463
Maja Cepanec https://www.bib.irb.hr/pregled/znanstvenici/273806	Assistant professor Area of Social sciences; field of speech and language pathology	14	28	4/5	Research ethics	30
					Workload in 1st and 2nd cycle	345
					Workload at other HEIs	60
					Total workload	435

Emica Farago https://www.bib.irb.hr/pregled/znanstvenici/99662	Full professor	6	2	1/2	Voice, speech and swallowing disorders	12
	Area of Social sciences; field of speech and language pathology	Research based approaches to motor disorders	0			
		Dysphagia and neuromuscular disorders	0			
		Workload in 1st and 2nd cycle	320			
		Workload at other HEIs	155			
		Total workload	487			
Zvonimir Galić https://www.bib.irb.hr/pregled/znanstvenici/276995	Associate professor	15	32	4/7	Multivariate statistical methods	60
	Area of Social sciences; field of psychology	Workload in 1st and 2nd cycle	327			
		Workload at other HEIs	280			
		Total workload	667			
Mladen Hedjever https://www.bib.irb.hr/pregled/znanstvenici/1802	Full professor	1	17	1/3	Voice, speech and swallowing disorders	12
	Area of Social sciences; field of speech and language pathology	Auditory processing disorders	0			
		Workload in 1st and 2nd cycle	300			
		Workload at other HEIs	0			
		Total workload	312			
Iva Hrastinski https://www.bib.irb.hr/pregled/znanstvenici/281820	PhD	3	16	1/1	Hearing impairments	16
	Election in progress in th Area of Social sciences; field of speech and language pathology	Auditory processing disorders	0			
		Early communication and speech and language development of children with hearing loss	18			
		Slušanje i komunikacija kod odraslih osoba oštećena sluha	18			
		Workload in 1st and 2nd cycle	186			
		Workload at other HEIs	8			
Total workload	246					
Vesna Ivasović https://www.bib.irb.hr/pregled/znanstvenici/243601	PhD	2	0	0	Hearing impairments	0
	Workload in 1st and 2nd cycle	0				
	Workload at other HEIs	9				
	Total workload	9				
Jasmina Ivšac Pavliša https://www.bib.irb.hr/pregled/znanstvenici/244073	Associate professor	10	8	2/3	Autism spectrum disorders	16
	Area of Social sciences; field of speech and language pathology	Augmentative and alternative communication – intervention and technology aspects	15			
		Workload in 1st and 2nd cycle	390			
		Workload at other HEIs	80			
		Total workload	501			
Ana Leko Krhen https://www.bib.irb.hr/pregled/znanstvenici/278874	Assistant professor	4	11	1/1	Voice, speech and swallowing disorders	12
	Area of Social sciences; field of speech and language pathology	Neural basis of fluency disorders	18			
		Workload in 1st and 2nd cycle	297			
		Workload at other HEIs	113			
		Total workload	440			
Melita Kovačević https://www.bib.irb.hr/pregled/znanstvenici/158340	Full professor	7	2	1/3	Academic writing and effective public communication	36
	Area of Social sciences; field of speech and language pathology	Language and cognitive development	30			
		Workload in 1st and 2nd cycle	295			
		Workload at other HEIs	66			
		Total workload	427			
Ninoslava Kuhn	PhD	x	0	0/2	Hearing impairments	0

					Workload in 1st and 2nd cycle	60
					Workload at other HEIs	0
					Total workload	60
Jelena Kuvač Kraljević https://www.bib.irb.hr/pregled/znanstvenici/244095	Associate professor Area of Social sciences; field of speech and language pathology	29	52	4/5	Language and communication disorders and specific learning disability	21
					Developmental and acquired language disorders	15
					Workload in 1st and 2nd cycle	308
					Workload at other HEIs	12
					Total workload	356
Mirjana Lenček https://www.bib.irb.hr/pregled/znanstvenici/190354	Full professor Area of Social sciences; field of speech and language pathology	4	0	0/2	Language and communication disorders and specific learning disability	12
					Dysgraphia	18
					Workload in 1st and 2nd cycle	305
					Workload at other HEIs	24
					Total workload	359
Goran Milas (Hrvatski studiji) https://www.bib.irb.hr/pregled/znanstvenici/166080	Full professor Area of Social sciences; field of psychology	6	10	2/6	Research methods	60
					Workload in 1st and 2nd cycle	180
					Workload at other HEIs	70
					Total workload	310
Marina Milković https://www.bib.irb.hr/pregled/znanstvenici/257202	Assistant professor Area of Social sciences; field of speech and language pathology	0	0	0/2	Hearing impairments	12
					Research in sign languages	0
					Workload in 1st and 2nd cycle	451
					Workload at other HEIs	167,5
					Total workload	630,5
Ljubica Pribanić https://www.bib.irb.hr/pregled/znanstvenici/108136	Associate professor Area of Social sciences; field of speech and language pathology	2	0	0/1	Early communication and speech and language development of children with hearing loss	0
					Workload in 1st and 2nd cycle	218,5
					Workload at other HEIs	108
					Total workload	326.5
Tatjana Prizl Jakovac https://www.bib.irb.hr/pregled/znanstvenici/190391	Full professor Area of Social sciences; field of speech and language pathology	1	11	1/2	Language and communication disorders and specific learning disability	12
					Adult neurogenic language disorders	0
					Workload in 1st and 2nd cycle	365
					Workload at other HEIs	0
					Total workload	377
Claire Sangster Jokić https://www.bib.irb.hr/pregled/znanstvenici/366554	Assistant professor Area of Social sciences; field of psychology	5	1	1/3	Research based approaches to motor disorders	36
					Workload in 1st and 2nd cycle	0
					Workload at other HEIs	394
					Total workload	430
Sanja Šimleša https://www.bib.irb.hr/pregled/znanstvenici/301096	Assistant professor Area of Social sciences; field of psychology	21	24	3/4	Data analysis in speech and language pathology research - selected topics	75
					Autism spectrum disorders	14
					Workload in 1st and 2nd cycle	370
					Workload at other HEIs	35
					Total workload	494
Boris Šimunjak	Assistant professor	5	1	1/4	Multidimensional assessment of voice quality	0
					Workload in 1st and 2nd cycle	70

https://www.bib.irb.hr/pregljed/znanstvenici/207895	Area of Biomedicine and Health Sciences field of clinical medical sciences				Workload at other HEIs	22
					Total workload	92
Marin Vuković https://www.bib.irb.hr/pregljed/znanstvenici/328616	Assistant professor Area of technical sciences; field of electrical engineering	22	14	2/5	Augmentative and alternative communication – intervention and technology aspects	0
					Opterećenje na 1. i 2. (uklj.integrirane i specijalističke studije) razini	0
					Opterećenje na drugim VU	0
					Ukupno	0

* State only for those coming from other institutions.

** Or some other database showing accurate data on publications and other research results.

*** Workload expressed in norm hours at all three cycles of higher education and other HEIs.

A = number of publications (books, journal articles etc.) relevant for the area/field, according to the Ordinance on Election into Scientific Titles, in the past five years (CROSBI has to be updated to provide accurate information).

B = number of citations, if applicable, and the source of this information (e.g. WoS, Scopus, Google Scholar).

C = *h*-index (if applicable; also state the source of this information).

Table 2 Supervisors and candidates

Supervisor (name and surname/ institution*) and link to CROSBI database**	Scientific (or scientific-teaching) title and area/field of election	Workload in norm-hours** *	A	B	C	D	E	Candidate (initials) and research topic	F	G	Number of candidates graduating / not graduating on time (in the past five years)
Supervisor 1								Candidate 1/research topic			
								Candidate 2/research topic			
								Candidate 3/research topic			
								(...)			

* State only for those coming from other institutions.

** Or some other database showing accurate data on publications and other research results.

*** Total current workload expressed in norm hours at all three cycles of higher education (+ at other HEIs).

A = number of publications (books, journal articles etc.) relevant for the area/field, according to the Ordinance on Election into Scientific Titles, in the past five years (CROSBI has to be updated to provide accurate information).

B = number of citations of these, if applicable, and the source of this information (e.g. WoS, Scopus, Google Scholar).

C = *h*-index (if applicable; also state the source of this information).

D = number of international research projects led and/or participated in in the past five years.

E = number of domestic research projects led and/or participated in in the past five years.

F = number of publications coming out of doctoral research.

G = number of citations of these, if applicable, and the source of this information (e.g. WoS, Scopus, Google Scholar).

IV MANDATORY AND ADDITIONAL DOCUMENTS

In addition to the SER and the tables, which are submitted in Croatian and English, HEI prepares:

1. **strategic programme of scientific research in English** (or a summary in English if only Croatian version is available) which is submitted with the SER;
2. **a sample** (no more than 10, no less than 5 per generation) **of research proposals, theses and individual work plans** of the candidates in the alphabetic order, in the past five year period, in Croatian and English (i.e. with English proposal and thesis summaries/ abstracts) which are prepared for the visit, or, if they want, set up links or publicly available repository etc. and provides the expert panels with access to proposals, theses, plans through the SER;
3. relevant ordinances/ internal quality assurance documents (and other evidence it deems useful) in English, such as the **Regulations on the doctoral study programme**, study programme guide, etc.

The Agency will send only self-evaluation report and the strategic programme of scientific research to expert panels, but we recommend the HEI to provide **a link** with **any additional documents and information** on their protected or publicly available websites and to **enable the Expert Panel easy access** to documents via **links in the Self-evaluation report**.

Appendixes:

- Appendix 1 Resolution on listing scientific organisations
- Appendix 2 Approval of the Ministry of Science and Education
- Appendix 3 Regulations on the Doctoral Study Speech, Language and Hearing Disorders
- Appendix 4 Accreditation from ASHE
- Appendix 5 Report of Expert Panel on the Accreditation of Faculty of Education and Annex Sciences
- Appendix 6 Strategic Document on the Development of Faculty of Education and Rehabilitation Sciences from 2019 to 2023
- Appendix 7 Plan of the workshop for mentors
- Appendix 8 Teacher evaluation survey
- Appendix 9 Academic year evaluation survey
- Appendix 10 Assessment of study advisors
- Appendix 11 List of papers students have written in the last 5 years
- Appendix 12 Decision on fees on postgraduate study
- Appendix 13 Decision on exemption from tuition fees for full-time students
- Appendix 14 Decision on the amount of tuition fee and payment in two instalments
- Appendix 15 Decision on exemption from paying enrolment materials
- Appendix 16 Cost estimate with cost projection
- Appendix 17 Defense protocol of the Faculty of Education and Rehabilitation Sciences
- Appendix 18 Evaluation of study programme - internal and external
- Appendix 19 Agreement between Uni Zagreb and Uni Sevilla
- Appendix 20 Notice on the mobility of doctoral students
- Appendix 21 Education Agreement on doctoral study
- Appendix 22 Students' individual plans
- Appendix 23 Data on scientific productivity and visibility of teachers

Forms of the University of Zagreb

DR.SC.-01_Application_PhD thesis

DR.SC.-02_Evaluation of Dissertation Topic

DR.SC.-03_ Decision on Approval of the Dissertation Topic

DR.SC.-04_Doctoral_annual_report
DR.SC.-05_ Annual Mentor's Report
DR.SC.-06_ Request for Change of Topic and/or Mentor
DR.SC.-10_ Report on Dissertation Evaluation
DR.SC.-11_ Protocol and Minutes of the Dissertation Defense

Appendixes in English

E1: Regulations on doctoral study Speech, Language and Hearing Disorders

E2: Guide to Doctoral Study Speech, Language and Hearing Disorders

E3: Scientific Activity from the Strategic Plan of Development of the Faculty of Education and Rehabilitation Sciences