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**STRATEGIC PROGRAMME OF SCIENTIFIC RESEARCH
FACULTY OF EDUCATION
JOSIP JURAJ STROSSMAYER UNIVERSITY OF OSIJEK
FOR THE PERIOD 2025–2029**

Dean

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Osijek, January 2025

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Introduction

The Faculty of Education of Josip Juraj Strossmayer University of Osijek is registered with the Commercial Court in Osijek to conduct research activities. Its work is governed by the Statute and aligned with the Act on Higher Education and Scientific Activity (Official Gazette No. 119/22; hereinafter: the Act), the Statute of Josip Juraj Strossmayer University of Osijek, and other relevant regulations.

The purpose of the Strategic Programme of Scientific Research for 2025–2029 at the Faculty of Education, Josip Juraj Strossmayer University of Osijek, is to present, in a concise and clear manner, the key strategic objectives, outcomes, and scientific activities that can be implemented and carried out over the next five-year period.

The Faculty of Education systematically encourages the research and artistic activities of its teaching staff and associates through participation in national and international scientific and professional conferences, the publication of papers in journals indexed in relevant databases, as well as through the acquisition of scientific and professional equipment and literature. Scientists and students of the Faculty, particularly postgraduate students, participate in the Faculty's scientific activities, including research, publishing, scientific conferences, and projects. The Faculty management provides continuous support for the planning and implementation of research projects by ensuring additional training, as well as administrative and financial support. The scientific work of teaching staff and associates is continuously monitored, as is their participation in conferences, whether through presentations and/or membership in programme, organising, and scientific committees of international scientific conferences. Scientists plan their scientific, professional, and artistic activities at the beginning of the academic year and submit a report on the implementation of the plan at the end of the academic year.

The mission of the Faculty of Education of Josip Juraj Strossmayer University of Osijek is as follows: *“We understand that the future is shaped by the actions we take today. That is why we are committed to educating competent, wise, responsible, and reliable professionals for work in educational institutions. Within an interdisciplinary environment, we learn, research, teach, collaborate, and create new opportunities. We foster the development of an inclusive environment based on contemporary scientific knowledge and good practice.”* The mission clearly defines the institutional development priorities of the Faculty as a centre of excellence and competence across the full vertical structure of the education system at both national and European levels.

The vision of the Faculty of Education of Josip Juraj Strossmayer University of Osijek is as follows: *“Committed to the legacy of education for all, we will be a strong and recognisable partner in the development of a knowledge-based society at both local and global levels.”* The vision clearly defines the key directions of the Faculty's growth and development, based on the concept of a knowledge-based society as the fundamental starting point for the development of every advanced society that recognises the education system as a core system on which the future of each country depends.

The values of the Faculty of Education of Josip Juraj Strossmayer University of Osijek are:

1. ACADEMIC EXCELLENCE

Everything we do is based on a commitment to academic excellence. In our teaching, research, projects, and collaborations, we rely on knowledge, tradition, and both present and future perspectives, as well as on the quality of the teaching process grounded in scientific knowledge.

2. INCLUSIVENESS

We believe in education for all. We advocate the inclusion of vulnerable and underrepresented groups in society. We promote lifelong learning and strive to develop in students a sense of social responsibility and a sense of pride in their own cultural heritage, as well as respect for the cultural heritage of others. We encourage the acquisition of knowledge and the development of new and creative approaches necessary for effective participation in society. We pay particular attention to rehabilitation and intervention as forms of appropriate support in the least restrictive environment.

3. STUDENT-CENTRED APPROACH

In educating students, we foster a holistic approach and are guided by all key aspects of human development and personal experience. In everything we do, we strive to provide students with the best possible learning experience relevant to a changing society.

4. COMMITMENT TO EDUCATIONAL PRINCIPLES

Through continuous reflection, self-directed learning, and ongoing professional development, we uphold and promote the reputation of all professionals in education. We promote the alignment of the education system with the needs of society.

At the Faculty of Education of Josip Juraj Strossmayer University of Osijek, as of 1 January 2025, a total of 76 members of academic staff and associates are employed. Of these, 49 members of academic staff hold scientific-teaching positions and four hold artistic-teaching positions. Five members of academic staff are employed in teaching positions (Senior Lecturers), 14 associates are employed in associate positions (two Senior Assistants and 12 Assistants), and four staff members hold professional positions (one Expert Advisor in the system of science and higher education, two Senior Professional Associates in the system of science and higher education, and one Professional Associate in the system of science and higher education). Postgraduate university students, external associates and collaborators participate in the scientific work of the Faculty, and other students may also take part. The organisational structure of the Faculty comprises a total of seven (7) departments and one (1) independent unit, namely a sub-department: the Department of English and German Studies, the Department of Social Sciences, the Department of Educational Rehabilitation and Speech and Language Pathology, the Department of Croatian Studies, the Department of Pedagogy, History and Philosophy, the Department of Natural Sciences, the Department of Arts, and the Sub-department of Kinesiology, which functions as an independent unit. Eight (8) centres operate within the Faculty and contribute to its research activities: the Centre for Anthropology of Education, the Centre for

Research of the Intangible Cultural Heritage, the Centre for Talent Research and Education, the Career Development Centre for Students, the Centre for Teaching Methodology and Student Practice, the Centre for Rehabilitation, the Centre for Arts, and the Centre for Interdisciplinary Education and Technology.

The Strategic Programme of Scientific Research of the Faculty of Education is based on the results of a SWOT analysis, as well as on the Josip Juraj Strossmayer University of Osijek Strategy 2021–2030, the Faculty of Education Development Strategy 2022–2026, and the Action Plan for Quality Improvement in the second cycle of reaccreditation of the Faculty of Education for the period from June 2024 to June 2029.

Through this Strategic Programme of Scientific Research, the Faculty of Education defines its strategic objectives, expected outcomes, and scientific activities for the period 2025–2029. The final chapter also includes performance indicators relating to the implementation of the Strategic Programme of Scientific Research of the Faculty of Education at Josip Juraj Strossmayer University of Osijek for the period 2020–2024, with the methodology based on an analysis of the achievements of all Faculty staff.

SWOT Analysis of the Faculty of Education

The SWOT analysis identifies four perspectives: *Strengths*, *Weaknesses*, *Opportunities* and *Threats*. By examining these elements, feedback is obtained from academic staff and associates, which serves as a starting point for developing the Strategic Programme of Scientific Research of the Faculty of Education at Josip Juraj Strossmayer University of Osijek for the period 2025–2029.

STRENGTHS
<ul style="list-style-type: none"> - a supportive environment that promotes interdisciplinarity and openness to collaboration with the wider academic and social community - researchers who regularly advance to higher scientific-teaching and artistic-teaching positions - study programmes aligned with labour market needs - numerous research activities, as well as a well-developed infrastructure and resources - awareness of opportunities to apply for research projects - creation of new positions in line with institutional needs - continuous organisation, co-organisation, and participation of academic staff, associates, and students in scientific and artistic conferences - freedom and autonomy of scientific work and artistic creativity - the Faculty's visibility within the wider community - financial support for researchers to participate in and organise scientific and artistic conferences, as well as for research and publishing activities - innovative methods and a strong research orientation - numerous cooperation agreements concluded with various stakeholders at national and international levels.
WEAKNESSES
<ul style="list-style-type: none"> - insufficient collaboration between scientific-teaching staff and associates within teams and centres - an insufficient number of high-impact scientific publications and artistic outputs - journals published by the Faculty are not indexed in relevant scientific journal databases - an insufficient number of research projects with direct application in educational practice - insufficient funding for research (due to unsigned programme agreements and funding models defined by university regulations and the competent ministry) - limited space and the need for new research infrastructure - an insufficient number of professional associates and assistants.
OPPORTUNITIES

- interdisciplinarity and opportunities for networking and collaboration with colleagues and institutions from different scientific areas and fields at national and international levels
- the popularisation of science and the arts
- the development of new educational technologies
- well-equipped facilities
- highly motivated students, as well as scientific-teaching and artistic-teaching staff
- open science and the arts
- organisation of scientific, artistic, and professional conferences, as well as performances and exhibitions
- participation in scientific, artistic, and professional projects and involvement in research teams
- publication in high-impact journals
- additional sources of funding secured through applications to national and international projects, as well as cooperation with the wider community
- development of new study programmes in line with labour market needs and the modernisation of existing study programmes
- utilisation of international funding programmes.

THREATS

- misalignment with developments in educational technology and ethical requirements in science
- excessive bureaucratisation of the system and administrative barriers
- increasing demands for scientific output and publication in high-impact journals place pressure on academic staff
- increasingly demanding scientific-teaching criteria for re-election and promotion to higher scientific-teaching and artistic-teaching positions
- lack of adequate space for research
- an insufficient number of calls for proposals for scientific and artistic projects and innovations in education
- political changes, global crises, and changes in legislation affecting education policies and long-term strategies, as well as unclear implementation of legal regulations
- an insufficient number of researchers and professional staff reduces capacity for project management and increases the workload of existing staff, which may affect the quality of work
- restricted employment of academic staff and associates based on a decision of the competent ministry imposing a recruitment freeze in the higher education system.

Plan of Scientific and Artistic Activities in Line with the Set Objectives

1. SCIENTIFIC OBJECTIVE
The higher education institution is recognised for its research and/or artistic achievements across all fields in which it delivers study programmes.
ACTIVITIES
Foster a supportive research environment through participation in scientific/artistic/professional conferences and the publication of papers in recognised international peer-reviewed journals. Encourage networking and interdisciplinarity in research. Carry out scientific and/or artistic projects. Organise and/or co-organise national and international scientific and/or artistic conferences. Promote staff mobility and the signing of cooperation agreements with national and international scientific institutions with the aim of developing research collaboration (projects, publications). Encourage the participation of Faculty academic staff in committees and other bodies in higher education and science at national and international levels. Organise or co-organise lectures by international researchers or artists. Increase the number of publications indexed in WoS and Scopus databases. The minimum number of publications per calendar year at the level of each department should be at least 5, and at the level of the independent unit at least 2. An annual increase of at least 15% compared to the previous calendar year is expected.
IMPLEMENTATION INDICATORS
List of scientific and/or artistic conferences and publications of Faculty academic staff (CroRIS report). Financial report on support for scientific/artistic/professional activities. List of scientific and/or artistic projects (CroRIS report). List of national and international scientific and/or artistic conferences organised or co-organised by the Faculty (Dean's Report on Activities and Faculty Operations). Number of staff mobilities and cooperation agreements signed with national and international scientific institutions.

<p>Number of Faculty academic staff participating in committees and other bodies in higher education and science at national and international levels.</p> <p>Number of invited lectures delivered by international academic staff and artists.</p> <p>Number of publications indexed in WoS and Scopus databases at the level of each department, the independent unit, and the Faculty as a whole, with a continuous increase of at least 15% compared to the previous calendar year.</p>
TIMELINE
January 2025, January 2026, January 2027, January 2028, January 2029
RESPONSIBLE PERSON(S) OR BODIES
<p>Dean</p> <p>Vice Dean for Science</p> <p>Vice Dean for Business Relations and International Cooperation</p>

2. SCIENTIFIC OBJECTIVE
<i>The higher education institution is recognised for its professional achievements.</i>
ACTIVITIES
<p>Encourage cooperation with local organisations through involvement in socially beneficial activities.</p> <p>Encourage cooperation with the local community through the organisation and implementation of professional projects and activities.</p> <p>Promote the publication of professional works relevant to the development of the profession.</p> <p>Encourage the participation of Faculty academic staff in editorial boards of professional journals, committees, and other bodies important for the development of the profession.</p>
IMPLEMENTATION INDICATORS
List of implemented activities and projects carried out in cooperation with the local community (popularisation of science, professional projects, projects in cooperation with industry, list of publications in professional journals, list of members in professional associations, list of workshops and panel discussions) (Dean’s Report on Activities and Faculty Operations).

<p>Information on implemented activities in cooperation with the local community published on the Faculty website www.foozos.hr and social media (Facebook, Instagram).</p> <p>List of published professional publications authored by Faculty staff (Dean's Report on Activities and Faculty Operations).</p> <p>List of Faculty academic staff participating in editorial boards of professional journals, committees, and other bodies important for the development of the profession (Dean's Report on Activities and Faculty Operations, Reports on the Work of Departments and Centres).</p>
TIMELINE
<p>January 2025, January 2026, January 2027, January 2028, January 2029</p> <p>Continuous</p>
RESPONSIBLE PERSON(S) OR BODIES
<p>Dean</p> <p>Vice Dean for Science</p> <p>Vice Dean for Business Relations and International Cooperation</p> <p>Vice Dean for Study Programmes and Development</p> <p>Vice Dean for Teaching</p> <p>Heads of Departments and Centres</p>

3. SCIENTIFIC OBJECTIVE
<p>The higher education institution contributes, through the scientific and/or artistic work of its academic staff, to the economy and society as a whole.</p>
ACTIVITIES
<p>Organise and carry out activities of Faculty academic staff and artists with the aim of disseminating their work to the wider community (panel discussions, conferences, exhibitions, and projects in cooperation with industry and the local community).</p> <p>Participate in the development of public policies within the scientific and/or artistic areas and fields in which the Faculty operates.</p> <p>Participate in various national and international scientific or governing bodies.</p> <p>Participate in national and international peer review of projects, programmes, and scientific publications.</p>
IMPLEMENTATION INDICATORS

<p>Activities carried out to disseminate Faculty work to the wider community (announcements on the Faculty website www.foozos.hr and social media, including Facebook and Instagram).</p> <p>Examples of academic staff participation in national and international scientific or governing bodies.</p> <p>Examples of academic staff participation in national and international peer review of projects, programmes, and scientific publications.</p>
TIMELINE
Continuous
RESPONSIBLE PERSON(S) OR BODIES
<p>Dean</p> <p>Vice Dean for Science</p> <p>Vice Dean for Business Relations and International Cooperation</p> <p>Vice Dean for Study Programmes and Development</p> <p>Heads of Departments and Centres</p>

4. SCIENTIFIC OBJECTIVE
<p>Postgraduate programmes of the higher education institution are aligned with the institution’s strategic programme, contemporary scientific and/or artistic achievements, professional standards, and internationally recognised standards of quality postgraduate education.</p>
ACTIVITIES
<p>Reflect current scientific research in postgraduate doctoral and university specialist programmes.</p> <p>Revise postgraduate programmes and publish doctoral and specialist theses that follow the latest scientific knowledge and the skills based on it.</p> <p>Align postgraduate programmes with professional standards and contemporary achievements.</p> <p>Continuously encourage the implementation of joint postgraduate programmes with other higher education institutions.</p>
IMPLEMENTATION INDICATORS
<p>Procedures for amendments and updates of postgraduate programmes of the Faculty.</p>

Approved dissertation topics, doctoral and specialist theses within the Faculty's postgraduate programmes (publicly available doctoral and specialist theses in the Faculty Repository).

Cooperation with other higher education institutions in the implementation of joint postgraduate programmes.

TIMELINE

Continuous

RESPONSIBLE PERSONS AND BODIES

Doctoral Study Council

Specialist Study Council

Faculty Council

5. SCIENTIFIC OBJECTIVE

The higher education institution applies the principles of open science in its activities, processes, and regulations.

ACTIVITIES

Increase the international visibility of staff through the continuous updating of data on the scientific, artistic, and professional activities of academic staff in the Croatian Research Information System (CroRIS) and on the official Faculty website www.foozos.hr.

Ensure open access to all theses (undergraduate, graduate, specialist, and doctoral) and publications issued within the Faculty's organised publishing activities in the Faculty Repository, as well as to scientific and professional publications, educational content, and research data of staff and students in the CroRIS database.

IMPLEMENTATION INDICATORS

Data on the scientific, artistic, and professional activities of academic staff: Croatian Research Information System (CroRIS).

Information published on the official Faculty website www.foozos.hr

on the scientific, artistic, and professional activities of Faculty academic staff.

Percentage of theses available in open access in the Faculty Repository.

Percentage of scientific and professional publications available in open access.

<p>Percentage of the Faculty's own publications available in open access, with the use of open licences and the definition of an open access publishing policy.</p> <p>Dean's Report on Activities and Faculty Operations.</p>
<p>TIMELINE</p>
<p>January 2025, January 2026, January 2027, January 2028, January 2029</p> <p>Continuous</p>
<p>RESPONSIBLE PERSONS AND BODIES</p>
<p>Dean</p> <p>Vice Dean for Science</p> <p>Vice Dean for Business Relations and International Cooperation</p> <p>Vice Dean for Study Programmes and Development</p> <p>Doctoral Study Council</p> <p>Specialist Study Council</p> <p>Library</p>

Research Topics to Be Investigated in the Period 2025–2029

DEPARTMENTS	RESEARCH AREAS AND TOPICS
Department of English and German Studies	<p>1. <i>Foreign Language in Early and Middle Childhood (Strani jezik u ranom i srednjem djetinjstvu)</i> provides a broad framework for research on foreign language acquisition and teaching during key developmental stages. Drawing on insights from cognitive and applied linguistics, as well as other disciplines, research in this area contributes to understanding the complexity of foreign language learning and offers guidance for improving educational policies and practices. The research aims, among other things, to explore how foreign languages are acquired and taught in different contexts, with particular emphasis on educational policies and curricula in the European context, as well as on the interaction between educational practices, policies, curricula, children’s developmental stages, and non-formal and informal learning. The expected outcomes may significantly enhance multilingual education strategies and support the development of stronger language competences in future generations.</p> <p>2. <i>Language, Communication and Media (Jezik, komunikacija i mediji)</i> provides an interdisciplinary framework for research, combining theoretical analysis with application in real educational and social contexts. The research focuses, among other aspects, on the interplay between language, media, and education; the impact of media and multimedia content on the communication skills of children and adults; and horizontal multilingualism. It will also examine traditional and contemporary media, as well as changes in language and metalanguage, and in approaches to learning and teaching shaped by social, technological, and educational developments. Critical discourse analysis will encompass a range of media, including textbooks and teaching materials, using cognitive-linguistic and other linguistic approaches. Research in this area contributes to understanding the role of media in multilingualism, the development of communication skills, and education more broadly, and provides historical insight into the evolution of educational policies and practices with the aim of informing contemporary practice.</p>

	<p><i>3. Students' Readiness for the Labour Market (Pripremljenost studenata za izlazak na tržište rada)</i> is a research topic focused on assessing the competences acquired by students preparing for careers as teachers, preschool educators, speech and language therapists, and educational rehabilitators. The aim is to examine how formal education prepares future professionals for labour market challenges, taking into account key professional competences as well as additional skills such as proficiency in English, communication skills, and digital literacy. Through the analysis of study programmes, student self-assessment, and employer feedback, the research seeks to identify existing gaps in education and propose curriculum adjustments that will improve students' readiness for contemporary professional demands.</p>
Department of Social Sciences	<p><i>1. Competent Systems in Early and Preschool and Primary Education (Kompetentni sustavi u ranom i predškolskom i osnovnoškolskom sustavu odgoja i obrazovanja)</i> is a research topic that brings together participants across different levels of the education system and provides a platform for systematic, reciprocal, and purposeful interaction aimed at promoting a culture of quality and professionalism in early and preschool and primary education. The research focuses on the child/student as a competent creator of knowledge and meaning, critical reflection, initial education, the identity and professional development of preschool educators, teachers, and professional associates, alternative pedagogical approaches, connections within the system and transitions across it, as well as global, European, and Croatian education policies in early and preschool and primary education.</p> <p><i>2. Education of Children and Students with Special Educational Needs (Obrazovanje djece i učenika s posebnim obrazovnim potrebama)</i> is a research topic forming the basis for studies aimed at identifying individual and contextual factors in the implementation of inclusion in the education system, as well as examining contemporary perspectives on the development of giftedness and the education of gifted children and students. Particular emphasis is placed on psychological and educational strategies that enable the long-term identification and support of gifted children and students, fostering creativity and excellence across diverse educational contexts.</p> <p><i>3. Online Behaviour (Online ponašanje korisnika)</i> is a research topic focused on examining the relationship between psychological factors and behaviour in the field of information security, to determine how these factors influence compliance with security protocols, the recognition of threats, and proactive employee behaviour in protecting organisational data and resources.</p>

<p>Department of Educational Rehabilitation and Speech and Language Pathology</p>	<p>1. <i>Causal Induction III: The Relationship between Prenatal and Perinatal Factors and Autism Spectrum Disorder and Speech and Language Developmental Difficulties (Kauzalna indukcija III: Povezanost prenatalnih i perinatalnih čimbenika s poremećajem iz spektra autizma i teškoćama jezično-govornog razvoja)</i> is a research topic that includes studies aimed at assessing and analysing the relationship between identified prenatal and perinatal risk factors and the risk of autism spectrum disorder and speech and language developmental difficulties. The planned research focuses on the fields of speech and language pathology and early intervention, as well as on gynaecology and obstetrics and other medical fields complementary to educational rehabilitation and speech and language pathology.</p>
	<p>2. <i>Communication, Voice, and Speech and Language Disorders in Children with Developmental Difficulties and Persons with Disabilities (Komunikacijski, glasovni i govorno-jezični poremećaji kod djece s teškoćama u razvoju i osobama s invaliditetom)</i> is a research topic that provides a comprehensive and continuous framework for research on communication, voice, and speech and language disorders in vulnerable groups. The planned research focuses on the assessment of existing and new preventive, diagnostic, and rehabilitation approaches, as well as prognostic factors in both paediatric and adult populations, providing a contemporary theoretical and practical insight into specific areas of speech and language pathology, with an emphasis on the principles of continuity, accessibility, and a comprehensive approach to the provision of rehabilitation services.</p>
	<p>3. <i>Educational rehabilitation and habilitation approaches and programmes for children with developmental difficulties and persons with disabilities (Edukacijsko-rehabilitacijski i habilitacijski pristupi i programi za djecu s teškoćama u razvoju i osobe s invaliditetom)</i> is a research topic that provides an interdisciplinary framework for research on educational rehabilitation and habilitation approaches and programmes within the education, healthcare, and social welfare systems. Research on the quality of educational rehabilitation and habilitation services in the immediate environment of children with developmental difficulties and persons with disabilities strengthens the interpretative paradigm and, through an interdisciplinary approach, highlights the current situation and provides guidance for further improvements across all systems.</p>
	<p>4. <i>Rehabilitation services and support for children and young people with behavioural difficulties (Rehabilitacijske usluge i podrška djeci i mladima s problemima u ponašanju)</i> is a research topic that provides a multidisciplinary framework for research on forms of psychosocial support and</p>

	<p>rehabilitation approaches in the education of children with behavioural difficulties, with a focus on identifying effective rehabilitation and probation programmes for children, as well as forms of support for young people leaving the system of alternative care.</p>
<p>Department of Croatian Studies</p>	<p><i>1. Child and Language in Early and Primary Education (Dijete i jezik u ranoj i osnovnoškolskoj dobi)</i> is a research topic within which selected philological issues will be addressed through a theoretical and applied approach, generating new scientific insights and perspectives on the phenomena under study, as well as providing a range of useful guidelines applicable in language teaching. Research will focus on language acquisition and the learning and teaching of Croatian in school-age children, vertical and horizontal multilingualism, ways of fostering early literacy in preschool education, reading strategies and the development of reading literacy in school-age children, textbook discourse analysis, the relationship between the language of textbooks and the language of the child, the study of children’s literature and contemporary approaches to required reading, as well as research into media culture and media literacy in the context of child development. The expected outcomes may make a significant contribution to national scientific and professional literature addressing both theoretical and practical aspects of language acquisition, learning, and teaching in early and primary education, and may support all those involved in the language and literary education of younger generations. The academic and wider community will be informed of the research results at the international conference <i>Children and Languages Today</i>, organised since 2001 by the Department of Croatian Studies and the Department of English and German Studies.</p> <p><i>2. Language from Norm to Use (Jezik od norme do uporabe)</i> is a research topic focused on normative issues in the history and contemporary development of the Croatian language at the terminological, word-formation, morphological, and syntactic levels, to provide guidance for future developments in language standardisation. The research will also address stylistic variation in the Croatian language, particularly the relationship between functional styles and (standard) language norms from the perspective of discourse stylistics as a contemporary theoretical approach that seeks to explain the complexity of functional language variation. In the context of increasingly strong globalisation influences on the standard language, the research will examine how the contemporary Croatian language system adapts to the communicative needs of its speech community. The relationship between language norm and language use will therefore also be considered from the perspectives of pragmalinguistics, the relationship between standard and</p>

	<p>non-standard idioms, media literacy, language policy, text linguistics, dialectology, language teaching methodology, early and reading literacy, foreign language teaching, contact linguistics, and the role of bilingualism and multilingualism in early childhood development. The academic and wider community will be informed of the research results at the scientific conference <i>From Norm to Use</i>, organised by the Sub-department of Contemporary Croatian Language at the Faculty of Humanities and Social Sciences in Osijek from 2014 to 2024, and from 2026 onwards, co-organised with the Faculty of Education.</p>
	<p>3. <i>Šokačka rič – Slavonian Dialect in the Context of Contemporary Dialectological Research (Šokačka rič – govori slavonskoga dijalekta u kontekstu suvremenih dijalektoloških istraživanja)</i> is a research topic focused on Croatian dialectology and the history of the Croatian language. Research will examine the relationship between the Slavonian dialect and other disciplines (sociolinguistics, digital humanities, lexicography, lexicology, onomastics), as well as its relationship with other Croatian dialects within the Štokavian, Kajkavian, and Čakavian dialect groups, the relationship between Old Štokavian and New Štokavian, and the relationship between the Slavonian dialect and the Croatian standard language. The contribution of (Slavonian) dialectologists, the specific features of the Slavonian neoacute, and the status of the Slavonian dialect in the teaching of Croatian language and literature, in the oral and written expression of primary and secondary school pupils and students of Croatian studies, as well as in extracurricular activities, will also be examined, together with its presence in literature and in performing and film arts. The research will contribute to the study, preservation, and safeguarding of the Slavonian dialect, in particular the Šokac vernaculars that form part of the Croatian linguistic and cultural heritage of Slavonia, Srijem, and Baranja, including those preserved outside the Republic of Croatia. The academic and wider community will be informed of the research results at the international scientific, cultural and literary event <i>Šokačka Rič</i>, held continuously since 2003 and organised annually by the Faculty of Education of Josip Juraj Strossmayer University of Osijek since 2023. As part of this event, the international scientific conference <i>Slavonian Dialect</i> is organised.</p>
<p>Department of Pedagogy, History and Philosophy</p>	<p>1. <i>Challenges in Education (Izazovi u odgoju i obrazovanju)</i> is a research topic that provides a pedagogical framework for research in the following areas: contemporary education in terms of methodological approaches to research in education, perspectives on the contemporary curriculum, contemporary teaching, the professional development of students and education professionals, the culture of educational institutions, the management of educational institutions,</p>

	<p>intercultural education, ensuring the well-being of children and young people, educational values, and the challenges of contemporary parenting.</p> <p>2. <i>The History of Croatian Schooling and Pedagogy (Povijest hrvatskog školstva i pedagogije)</i> is a research topic that serves as a starting point for research into the practice of traditional schooling in Croatia, cumulative continuity or revolutionary discontinuity, and issues of continuity in schooling and pedagogy, with an emphasis on the practice of the Croatian public school. It also provides a possible methodological framework for research into school innovation, the school system, the external organisation of teaching, the state public school system, the external organisation of schools, school architecture and infrastructure, the position of pupils within the traditional school system, the phenomenon of pupil overload in traditional school practice, differentiated and reduced education of girls in compulsory education in Croatia, strategies of pupil discipline and assessment systems in traditional schooling, initial teacher competences, institutional teacher education, strategies and forms of continuous professional development of teachers, as well as the social status and material conditions of the teaching profession in Croatia.</p> <p>3. <i>Local History of Slavonia, Srijem and Baranja (Zavičajna povijest Slavonije, Srijema i Baranje)</i> is a research topic that serves as a starting point for research into the historical development, cultural characteristics, and identity features of the regions and populations of Slavonia, Srijem, and Baranja, as well as into ways in which local history is integrated into educational processes and how it can contribute to the development of personal and local identity, historical awareness, and cultural heritage in preschool and early school education. The research methodology will include the critical analysis of historical sources (archival documents, maps, chronicles, etc.), the analysis of secondary sources, oral history, the analysis of curricula, and the examination of the role of teachers and preschool educators and their methods.</p> <p>4. <i>Bioethics in Education (Bioetika u odgoju i obrazovanju)</i> is a research topic that serves as a starting point for research into the integration of bioethical principles, to empower future preschool educators and teachers to address ethical challenges in teaching. The research will focus on the development of critical thinking and ethical awareness among students through interactive and interdisciplinary methods. The research is interdisciplinary in nature, drawing on bioethics, pedagogy, psychology, and related fields, within which current bioethical issues will be examined, such as ethics in education, the impact of new technologies on learning, and decision-making related to health and the environment, with the aim of raising awareness of the</p>
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	<p>importance of bioethics in education across the wider community. In this way, the research contributes to creating a creative and responsible environment that will shape future generations of preschool educators and teachers.</p>
<p>Department of Natural Sciences</p>	<p>1. <i>Information and Communication Technologies in Education (Informacijsko-komunikacijske tehnologije u odgoju i obrazovanju)</i> is a research topic that enables the study of various perspectives on ICT. Through the analysis of collected data, data mining, and the examination of relationships between different variables, a deeper understanding of specific processes and their optimisation will be achieved, leading to improved outcomes. The application of learning analytics will contribute to a better understanding of educational processes and to improving the quality and efficiency of the education system.</p> <p>2. <i>Quality of Life of Children and Adolescents (Kvaliteta života djece i adolescenata)</i> is a research topic within which the structure of quality of life will be determined, that is, the factors influencing the quality of life of healthy and/or ill children and adolescents will be defined. Various generic questionnaires will be used to assess the quality of life of healthy children and adolescents, children and adolescents with specific learning difficulties (dyslexia and dysgraphia), as well as children with chronic conditions (epilepsy, diabetes, or asthma) who are included in mainstream education.</p> <p>3. <i>Pedagogical Content Knowledge in Science Education (Metodičko znanje u prirodoslovlju)</i> is a research topic within which studies will be conducted on the subject-specific and methodological knowledge of current and future primary school teachers regarding the fundamental scientific macro-concept <i>Processes and Interactions</i>, as well as their understanding of key concepts within the Science curriculum. Research will also examine teacher effectiveness in achieving intended learning outcomes, as well as issues related to pedagogical content knowledge (PCK) and teaching quality.</p> <p>4. <i>Scientific Contribution to Effective Mathematics Education (Znanstveni doprinos učinkovitom matematičkom obrazovanju)</i> is a research topic focused on understanding the key factors influencing its effectiveness. Mathematics education is based on cumulative learning, and research directions are therefore focused on the internal coherence and alignment of the curriculum, the vertical integration of mathematical concepts, the development of teacher competences, the integration of technology into mathematics education, and the adaptation of</p>

	<p>the teaching process. Research into different models for specific mathematical concepts contributes to the development of generalisation in mathematics and its application in modelling.</p> <p><i>5. Research on the Properties of Geometric Concepts in the Isotropic Plane and Cubic Structures (Istraživanje svojstava geometrijskih koncepata u izotropnoj ravnini i kubnim strukturama)</i> is a research topic within which geometric concepts in the isotropic plane will be introduced and examined, as well as their relationship with previously defined and studied concepts related to the standard triangle. An analytical approach introduced in studies on metric relations in the standard triangle in the isotropic plane will be applied. The obtained results will be compared with similar results in the Euclidean plane, thereby highlighting the specific features of the isotropic plane. Geometric concepts in cubic structures will also be introduced and examined. Particular attention will be given to investigating the properties of cubic structures of ranks 0, 1, and 2, as well as the existence of different types of configurations within these structures. The aim is to achieve a deeper understanding of geometric relationships and characteristics specific to these structures.</p>
Department of Arts	<p><i>1. Students and the Arts (Studenti i umjetnost)</i> is an artistic and research topic focusing on the role of artistic activities (music, visual arts, puppetry, and drama), the consumption of art, and sources of artistic content in students' lives. A spontaneous interest in artistic activity gradually becomes an integral part of students' education as well as their leisure time. Monitoring the presence of artistic content in the everyday lives of students across all study programmes at the Faculty of Education is of particular importance, as art enriches their experience, develops objective criteria for judgement, and fosters attention. Artistic activity is also associated with positive effects on individuals and is therefore valuable in maintaining mental health and nurturing creativity as a universal human potential, which is particularly important for the professional growth and development of future preschool educators, teachers, and educational rehabilitators. Participants in the research will include students from all study programmes of the Faculty of Education in Osijek.</p> <p><i>2. Creative Approaches to Learning and Teaching (Kreativni pristupi učenju i poučavanju)</i> is a scientific, artistic, and professional topic that re-examines traditional and contemporary views of creativity and promotes new approaches to learning and teaching, with an emphasis on creative activity and expression. The topic will explore the cognitive and affective mechanisms of creative thinking processes, imagination and creativity in childhood, critical thinking skills in today's school,</p>

	<p>possibilities for developing and fostering an environment that encourages student creativity, new creative practices in primary and secondary education, the role of teachers in fostering and developing creativity, the relationship between teacher enthusiasm and student engagement in creative activities, the assessment of students' creative work, subject-based teaching and creative processes, encouraging students' creative expression in extracurricular activities, challenges faced by teachers in arts schools (music, dance, and visual arts) in implementing activities that promote creative expression, creative thinking in the digital age, and the impact of AI and VR/AR technologies on the creativity of teachers and students.</p>
	<p>3. <i>Initiative and the Arts (Inicijativa i umjetnost)</i> is an artistic and research topic designed to connect and organise various activities (artistic, professional, and scientific) of staff members, thereby contributing to the cultural and artistic life of the community. The topic will also include the development of new artistic activities aimed at empowering students and the wider public to engage in cultural and artistic initiatives.</p>
<p>Sub-department of Kinesiology</p>	<p>1. <i>Kinesiology in the Field of Educational Rehabilitation and Speech and Language Pathology (Kineziologija u području edukacijske rehabilitacije i logopedije)</i> occupies an important place in the research context, and research objectives in this area will focus on improving therapeutic methods, evaluating the effectiveness of interventions, and enhancing the quality of life of service users. Key research objectives also include examining the effectiveness of kinesiology-based activities, that is, investigating how different kinesiology content influences the motor, cognitive, and speech abilities of children and adults with various difficulties such as cerebral palsy, autism, aphasia, dyslalia, and other neurological conditions. Furthermore, it is necessary to explore the development of new methods of work, particularly in terms of the interaction between kinesiology interventions and speech and language skills. This research aims to improve rehabilitation approaches, enable personalised therapies, and ensure better outcomes for service users, both in rehabilitation and inclusive contexts.</p> <p>2. <i>Kinesiology in Education (Kineziologija u odgojno-obrazovnom području)</i> plays a key role in the overall growth and development of the child. Research in this area seeks to examine the impact of kinesiology activities such as sport, recreation, education, and kinesiotherapy, with the aim of gaining a better understanding of their importance in the physical, cognitive, and conative domains. Possible research directions include increasing physical activity in order to improve</p>

	<p>motor and functional abilities, examining the role of kinesiology in socialisation and emotional development, particularly in team sports, exploring the relationship between kinesiology activities and health, and investigating new technologies, methods, and teaching approaches in Physical and Health Education. Research in this area will contribute to a better understanding of the issues examined and support the development of strategies to increase physical activity within the education system.</p>
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Performance Indicators for the Implementation of the Strategic Programme of Scientific Research of the Faculty of Education, Josip Juraj Strossmayer University of Osijek, for the Period 2020–2024

The performance indicators of scientific activity at the Faculty of Education in Osijek are monitored continuously and periodically. Continuous monitoring is carried out on an annual basis within the quality assurance system, based on the *Quality Assurance Manual* and the *Dean's Annual Reports and Faculty Business Reports*. In addition, periodic self-evaluations and internal evaluations are conducted for the purposes of internal and external evaluation, and periodic reports on the institution's scientific productivity are submitted to the Ministry of Science, Education and Youth.

The Strategic Programme of Scientific Research for 2020–2024 defined two main objectives: scientific activity and projects. Table 1 presents the activities envisaged by the Strategic Programme of Scientific Research, the expected outcomes, and the indicators of achievement for 2020–2024.

Table 1. Implementation of the Strategic Programme of Scientific Research of the Faculty of Education, Josip Juraj Strossmayer University of Osijek, 2020–2024

ACTIVITIES ENVISAGED BY THE STRATEGIC PROGRAMME OF SCIENTIFIC RESEARCH	EXPECTED OUTCOMES	INDICATORS OF ACHIEVEMENT (2020–2024)
OBJECTIVE 1: SCIENTIFIC ACTIVITY		
1.1. Continue to ensure the visibility and recognition of the Faculty's research potential and scientific activity.		
Regularly update information on scientific activity on the Faculty website.	The visibility and recognition of the Faculty's research potential and activities are ensured.	During the 2024/2025 academic year, a new website was created on which the scientific activity of academic staff is visible.
1.2. Continue to promote high-quality scientific work of academic staff and associates.		
Monitor the quality of scientific work, ensure financial resources for research and necessary literature, and encourage	Researchers, associates, and students publish and review nationally and	The Faculty systematically monitored the publication of scientific papers, with particular emphasis on papers published in the Web of Science and/or Scopus

<p>internal and inter-institutional cooperation.</p>	<p>internationally recognised scientific papers in scientific journals and publications indexed in relevant databases, in accordance with the Ordinance on Appointment to Scientific Titles (Official Gazette No. 28/17, 111/2022).</p>	<p>databases (Dean’s Reports and Faculty Business Reports, CroRIS). A total of 567 papers by academic staff were published, of which 223 were indexed in the Web of Science and Scopus databases. total of 44 authored and edited publications were published, including 24 in open access. The Faculty provided funding for research and necessary literature, as evidenced in its financial plans and reports. The Faculty encouraged internal and inter-institutional cooperation through work within departments, sub-departments, centres, internal projects, and projects with external stakeholders and institutions. A total of 72 cooperation agreements were signed. A total of 26 research and artistic research projects have been completed or are ongoing. Researchers individually participated in 46 competitive scientific, artistic, and professional projects at national and international levels (CroRIS). Researchers completed 44 outgoing mobilities, while 79 incoming mobilities were carried out.</p>
<p>Encourage and support invited lectures by staff holding scientific-teaching, artistic-teaching, and teaching positions.</p>	<p>The number of invited lectures delivered by staff holding scientific-teaching, artistic-teaching, and teaching positions increased by 30%.</p>	<p>The Faculty continuously organised invited lectures, both individually and within conferences, for interested academic staff and students. The number of invited lectures increased, particularly in the period following the COVID-19 pandemic. The Faculty regularly publishes reports on delivered invited lectures on its official website and Facebook page.</p>

1.3. Maintain and develop scientific infrastructure.		
Continue to support the organisation of scientific conferences and meetings at the Faculty.	Scientific conferences and meetings with an established tradition continue to be organised, and new events are organised in line with the needs of individual departments.	Some of the scientific conferences have a continuous tradition of being held at the Faculty of Education (Didactic Challenges, Mathematics and Children, Children and Languages Today, Osijek Days of Bioethics, Doctoral Days, Intercultural Education, KOMPAS – Competent Systems in Early Childhood Education and Care, ICT in life, Šokačka rič and many others), while others were organised for the first time in the previous five-year period (e.g. CALT – Creative Approaches to Learning and Teaching and The Two Hundredth Anniversary of the Birth of Ivan Filipović (1823–2023)). In addition, the Faculty participated in the organisation of numerous international conferences, of which only a few examples are listed: Continental Croatia, Education in Primary Schools during the Pandemic (Obrazovanje u osnovnoj školi u vrijeme pandemije), Persons with disabilities in art, science and education, etc.
Ensure subscriptions to <i>online</i> journal and book databases.	Researchers, associates, and students have access to up-to-date and high-quality literature necessary for research.	The Faculty of Education subscribes to the following online databases : Emerald Group Publishing (Emerald Library Studies eJournals Collection, Emerald Education eJournal Collection), SAGE, and a range of other open-access databases. During the five-year period, a total of 1,204 library items were acquired.
1.4. Support institutional care for the career development of academic staff.		
Ensure financial support for all researchers to participate in conferences.	Researchers participate in conferences.	All academic staff are provided with the necessary financial support to participate in conferences.

Monitor the work of assistants.	Early-career researchers advance in their academic careers.	Mentors submit annual reports on the progress of assistants. The reports are submitted to the Faculty Council.
Ensure funding for doctoral students' tuition fees.	Early-career researchers are provided with the conditions necessary for the development of their academic careers.	All doctoral students' tuition fees for the previous period have been paid (five doctoral students enrolled in doctoral programmes at the Faculty, with a total amount of EUR 13,563.38; three doctoral students enrolled in doctoral programmes at other institutions, with a total amount of EUR 8,742.55).
1.5. Support the publication of scientific journals issued by the Faculty and in collaboration with partner institutions.		
Encourage the continued publication of existing scientific journals and the launch of new ones.	Continuous publication of journals and cooperation with other journal editorial boards.	Two issues of the journal <i>Life and School (Život i škola)</i> and one issue of <i>Pannoniana</i> are published annually by the Faculty. The Faculty supports the student journal <i>Foo2rama</i> . Twelve members of academic staff are involved in 22 editorial boards of international scientific journals.
Continue the process of indexing journals in databases.	The journals <i>Life and School</i> and <i>Pannoniana</i> will be indexed in the Scopus database.	The journals <i>Life and School</i> and <i>Pannoniana</i> have been submitted to the Scopus database, and the indexing process is ongoing.
1.6. Involve students at all levels of study in the Faculty's scientific work.		
Encourage joint publications and conference presentations by students and academic staff.	Students are involved in scientific and professional work.	The Faculty continuously encourages students to publish independently and/or jointly with researchers in journals and conference proceedings, as well as to present at conferences. Students are exempt from paying conference fees for conferences organised by the Faculty.
Continue to encourage the organisation of student conferences at the Faculty.	Students organise student	Students are encouraged to actively participate in organising and/or programme committees for scientific

	conferences at the Faculty.	and professional conferences (e.g., Doctoral Days).
1.7. Strengthen activities aimed at the popularisation of the profession and science.		
Organise panel discussions, round tables, lectures, and workshops at the Faculty.	The Faculty hosts experts and scientists and provides the wider public with access to lectures.	Panel discussions, round tables, lectures, and workshops are organised on a continuous basis at the Faculty, and the public is informed via the official Faculty website and social media (Facebook , Instagram).
Participate in popularisation activities organised by other stakeholders.	The Faculty is involved in a wide range of science popularisation activities.	The Faculty regularly takes part in popularisation activities both within the institution and those organised by other stakeholders (e.g. Science Festival (Festival znanosti) , University of Osijek Career Week (Tjedan karijera) , MUZZA Science Weekend in Osijek (MUZZA vikend znanosti u Osijeku) , etc.).
OBJECTIVE 2: PROJECTS		
2.1. Intensify activities related to the submission of research projects. Target the preparation of research topics defined in this Strategic Programme of Scientific Research for application to new calls.		
Submit new national and international initial and research projects based on the Strategic Programme of Scientific Research.	The number of projects and the collaboration on projects have increased.	At the beginning of each academic year, researchers plan, apply for, and participate in various national and international initial and research projects, both scientific and professional. Data from the Dean's Reports on Activities and Faculty Operations, as well as from the CroRIS project database , indicate an increase in the participation of academic staff in different projects.
2.2. Ensure administrative and professional support in the application and implementation of projects.		
Provide training for academic staff, administrative staff, and researchers in the legal, financial, and technical aspects of project implementation.	A greater number of academic staff actively participate in project implementation.	The Faculty continuously organises project-related training, informs staff about calls, provides administrative support through the Project Office, and maintains records of project activities.

2.3. Periodically organise public lectures related to project topics for the purpose of science popularisation.		
Organise public lectures and panel discussions related to project topics.	Project results are presented to the wider public.	Presentations of project results are continuously organised for the wider public and promoted through various media, the Faculty website, the Faculty's social media, and the Faculty Repository .
Encourage and support student projects in cooperation with the regional and local community through the inclusion of service-learning activities.	The number of student projects involving the regional and local community through service learning has increased by 100%.	Students participate in professional projects with the regional and local community through service-learning activities, as reflected in a 100% increase recorded in the CroRIS database.

During the five-year period from 2020 to 2024, [research topics](#) were explored within the following internal projects:

1. [Procedural and Structural Dimensions of the Quality of Education within the Culture of Educational Institutions \(*Procesualne i strukturalne dimenzije kvalitete odgoja i obrazovanja u kulturi odgojno-obrazovne ustanove*\)](#)

The project is led by Željko Rački, PhD, Assistant Professor, and Antonija Huljev, PhD. The project team includes: Edita Borić, PhD, Full Professor (tenured), Damir Matanović, PhD, Full Professor (tenured), Tena Velki, PhD, Tijana Borovac, PhD, Maja Brust Nemet, PhD, Associate Professor, Snježana Dubovicki, PhD, Associate Professor, Ivica Kelam, PhD, Associate Professor, Ksenija Romstein, PhD, Associate Professor, Alma Škugor, PhD, Associate Professor, Rahaela Varga, PhD, Associate Professor, Ida Somolanji Tokić, PhD, Assistant Professor, Pavao Nujić, PhD, Senior Assistant, Ružica Tokić Zec, PhD, Senior Assistant, and Ivana Borić Letica, PhD, Assistant.

The project is situated within the fields of humanities and social sciences, as well as interdisciplinary areas of research. The transition from the 20th to the 21st century has been marked by a growing focus on research into the quality of education at all levels, from early childhood education and care to higher education. Academic staff have addressed both dimensions of quality: (1) the processual dimension, which includes research on the quality of interactions between educators/teachers and children/students, peer interactions, the quality of family relationships, and the possibilities of ensuring continuity between the family and the educational institution; and (2) the structural dimension, which includes research on early childhood and school environments, including child–adult ratios, curriculum and programme structure, the formal education of educators and teachers, and their continuing professional

development. This has contributed to strengthening qualitative and mixed-methods approaches and to fostering connections between different disciplines.

Scientific insights derived from research into both dimensions of quality form the basis of the metacompetence of future educators and teachers. As these studies are closely linked to practice, they open opportunities for student involvement in research, as well as for interdisciplinary approaches. Historical, philosophical, pedagogical, and sociological perspectives on education enable an examination of the competences and positions of educators/teachers and children/students in relation to dominant social paradigms and the direction of educational policy at both national and international levels.

Research into the quality of education is aligned with existing national education strategies of the Republic of Croatia, as part of the broader process of aligning education with labour market needs and the European Union. In line with the strategic plan of the Ministry of Science, Education and Youth of the Republic of Croatia for the period 2020–2022, this research project examines the conceptual space of professional roles and contemporary competences of educators and teachers, including metacompetence in the areas of multiculturalism, interculturalism, and inclusion. The results of the research will be used to improve the education system at all levels, as well as adult education, with the aim of supporting personal, social, and economic development.

During the five-year period from 2020 to 2024, a total of 108 scientific and professional papers were published within the project theme. Researchers delivered 111 presentations at scientific and professional conferences, 186 final and graduate theses related to the project were defended, and 14 science popularisation activities were carried out. A scientific monograph entitled *Procedural and Structural Dimensions of the Quality of Education in the Culture of an Educational Institution is currently in preparation.*

[2. *The Development of Vocabulary in Preschool and Early School-Age Children in the Native and Foreign Languages \(Razvoj rječnika djece predškolske i rane školske dobi u materinskom i stranom jeziku\)*](#)

The project is led by Lidija Bakota, PhD, Associate Professor, and Ivana Marinić, PhD, Associate Professor. The project team includes: Emina Berbić Kolar, PhD, Full Professor, Valentina Majdenić, PhD, Associate Professor, Dubravka Smajić, PhD, Associate Professor, Nina Mance, PhD, Assistant Professor, Ivana Moritz, PhD, Associate Professor, Željka Flegar, PhD, Associate Professor, Ivana Trtanj, PhD, Assistant Professor, Vedrana Živković Zebec, PhD, Assistant Professor, Irena Krumes, PhD, Assistant Professor, Mirna Erk, PhD, Assistant Professor, Manuela Karlak, PhD, Assistant Professor, Ksenija Benčina, Senior Lecturer, Sara Čavar, Assistant, Krešimir Čosić, Assistant, and Mirta Bijuković Maršić, Senior Lecturer.

The project falls within the field of humanities, specifically philology. A defining feature of vocabulary development in preschool and early school-age children is the rapid expansion of vocabulary in the early stages of language development. This expansion occurs both in terms of

the number of words that a child understands but does not use (passive vocabulary) and the number of words that a child both understands and uses in communication with others (active vocabulary).

In working with preschool and early school-age children, educators and teachers should be familiar with established patterns of children's language development and support it in a systematic and planned way. It is therefore important to examine which vocabulary acquisition strategies educators and teachers use, whether these involve unplanned teaching based on spontaneous responses when helping children understand unfamiliar words, or planned teaching focused on the intentional and systematic development of vocabulary through selected acquisition strategies.

Since vocabulary richness is directly linked to the development of narrative abilities, the acquisition of reading skills, the linguistic understanding of abstract concepts and terms, and the achievement of effective spoken and written communication (both in the native and in a foreign language), it is important to provide the scientific and professional-pedagogical community with research findings that are both theoretically grounded and practically applicable in the field of children's vocabulary development.

During the five-year period from 2020 to 2024, two international scientific conferences entitled Children and Languages Today were held, three conference proceedings volumes under the same title were published, one university textbook entitled *Strategije razumijevanja pri čitanju: Metodičke mogućnosti čitanja s razumijevanjem u nastavi hrvatskoga jezika* (Reading Comprehension Strategies: Methodological Approaches to Teaching Reading Comprehension in Croatian Language Classes) was published, 40 scientific papers were produced, 61 graduate theses and 55 final theses were defended, and 17 science popularisation activities were organised.

3. *Strategies for Improving Education in the STEM Field (Strategije unapređivanja obrazovanja u STEM području)*

The project is led by Zdenka Kolar-Begović, PhD, Full Professor (tenured). The project team includes: Irella Bogut, PhD, Full Professor (tenured), Ivana Đurđević Babić, PhD, Full Professor, Ružica Kolar-Šuper, PhD, Full Professor, Zvonimir Užarević, PhD, Associate Professor, Vjekoslav Galzina, PhD, Associate Professor, Karolina Dobi Barišić, PhD, Assistant Professor, Ana Katalenić, PhD, Assistant Professor, Ana Mirković Moguš, PhD, Assistant Professor, Krešimir Vidačić, Assistant, Željko Popović, MSc, College Professor (retired), Željko Gregorović, Senior Lecturer, Diana Moslavac Bičvić, Senior Lecturer, and Irena Kišmartin, Senior Professional Associate.

The project falls within the field of natural sciences and is grounded in the need to advance society through research-based education of students preparing for work in educational institutions. Teachers are expected to feel confident in their competencies in mathematics, informatics, and natural sciences. Given the significant changes taking place in Croatian primary

education, it is important that these developments are reflected in the education of future teachers and that they are offered content that complements existing study programmes.

Familiarity with teaching strategies that support the development of STEM competences enables future teachers to recognise and further develop students' abilities in this area. Particular emphasis is placed on linking rigorous academic concepts with educational goals and real-life situations, as students apply science, technology, engineering, and mathematics in contexts that reflect the multidisciplinary and interdisciplinary nature of contemporary STEM professions.

The project also explores students' experiences in programmes enriched with STEM content and examines teaching strategies that influence their interest in and engagement with these fields. In addition, it considers the competences acquired by future teachers, as well as their interest in teaching STEM both in regular classes and in extracurricular activities. The results are expected to contribute to a better understanding and further development of teaching and learning strategies in STEM, thereby enhancing educational practice.

During the five-year period from 2020 to 2024, two international scientific conferences, *The 8th and 9th International Scientific Colloquium Mathematics and Children*, founded by Margita Pavleković, were held; three scientific books, including *Advances in Research on Teaching Mathematics* and *Effective Teaching and Learning of Mathematics through Bridging Theory and Practice*, were published; 55 scientific and professional papers were produced; researchers delivered 62 presentations at scientific and professional conferences; 85 doctoral, graduate and final theses were defended; 32 science popularisation activities were organised; six new elective courses were approved; and ten digital educational materials were published.

4. *Students and Art (Studenti i umjetnost)*

The project is led by Mira Perić, Professor of Art, Full Professor (tenured), Jelena Kovačević, PhD, Associate Professor, and Goran Kujundžić, PhD, Full Professor. The project team includes: Marko Šošić, Doctor of Arts, Associate Professor, Lidija Nikolić, PhD, Associate Professor, Jelena Kovačević, Doctor of Arts, Associate Professor, Ana Popović, PhD, Assistant Professor, and Gordana Ercegovac-Jagnjić, Senior Lecturer.

The project is artistic and research-oriented, focusing on visual, puppetry, drama, and music arts. Art can be seen as one of the most significant forms of informal knowledge acquisition from an early age. Through artistic activity, children and young people at all levels of education develop their intellectual, creative, and expressive abilities, while also adopting a range of educational values.

During the period of maturation and identity formation, it is important to ensure access to high-quality artistic and aesthetic content. At the same time, young people are increasingly exposed to artistic content of questionable quality, which points to the need to examine the types of artistic content encountered by students.

Students of the Faculty of Education, as future teachers and educators, will ultimately be responsible for the artistic content offered to children and students. Research of this kind may therefore contribute to shaping approaches to arts education at all levels. The aim of the project is to examine the extent to which participants' environments influence their artistic preferences across different art forms (visual, drama, puppetry, and music). It also explores how and to what extent students participate in various artistic events, and how this relates to their preferences for different forms of artistic expression.

During the five-year period from 2020 to 2024, one doctoral thesis in the arts was defended and eight exhibitions of student visual artworks were organised, including the international *online* art exhibition AEXPO of academic staff at teacher education faculties and faculties of education, and AEXPO Futura, an international exhibition of students from these institutions (held both in person and *online*). In collaboration with students, one picture book was produced, and five visual arts workshops, one concert, and four music activities were held. In the field of drama, students attended seven performances of a play, one musical premiere, and visited four exhibitions. The Centre for Arts was established as a new organisational unit of the Faculty of Education. In total, 99 graduate and final theses were defended.

Working Group for the Preparation of the Strategic Programme of Scientific Research at the Faculty of Education (2025–2029)

1. Maja Brust Nemet, PhD, Associate Professor, Vice-Dean for Science, Chair
2. Ivana Đurđević Babić, PhD, Full Professor, Department of Natural Sciences, Member
3. Jelena Kovačević, Doctor of Arts, Associate Professor, Department of Arts, Member
4. Alma Škugor, PhD, Associate Professor, Department of Social Sciences, Member
5. Jadranka Mlikota, PhD, Associate Professor, Department of Croatian Studies, Member
6. Ivana Moritz, PhD, Associate Professor, Department of English and German Studies, Member
7. Antonija Huljev, PhD, Assistant Professor, Department of Pedagogy, History and Philosophy, Member
8. Ljiljana Širić, PhD, Assistant Professor, Department of Educational Rehabilitation and Speech and Language Pathology, Member