

Opis raziskovalnega dela (Research work description)

1. Članica UL (UL member):

Fakulteta za šport

2. Ime, priimek in elektronski naslov mentorja/ice (Mentor's name, surname and email):

Prof. dr. Mojca Doupona, mojca.doupona@fsp.uni-lj.si

3. Raziskovalno področje (Research field):

5.10. Šport

4. Opis raziskovalnega dela (Research work description):

Vključuje morebitne dodatne pogoje, ki jih mora izpolnjevati kandidat/ka za mladega raziskovalca/ko, ki niso navedeni v razpisu za mlade raziskovalce (It includes any additional conditions that the candidate for a young researcher must meet, which are not listed in the call to tender for young researchers.).

Slov.: Program usposabljanja mladega/e raziskovalca/ke bo usmerjen na raziskovanje družbenih problemov v športu. Z uporabo obstoječega znanja o delu v praksi s športniki pri kariernih prehodih, bo raziskovalec/ka preučeval/a karierne prehode z vidika dvojne kariere. Področje "dvojne kariere", ki je opredeljeno kot "kariera s poudarkom na športu in študiju ali delu" je bilo v zadnjem desetletju deležno povečanega zanimanja med raziskovalci po vsem svetu.

Med usposabljanjem se bo naučil/a uporabljati kvantitativno in kvalitativno metodologijo, prav tako pa bo mladi/a raziskovalec/ka imel/a možnost sodelovati pri evropskih projektih s področja dvojne kariere, v katerih deluje mentorica (FindMe, DC4Biathletes) in spoznati tveganja pri slabo načrtovanih prehodih (prehod iz mladinske v člansko kategorijo, prehod iz srednje šole na univerzo), ki peljejo do predčasnega zaključka športne kariere ali duševne stiske kadar dvojna kariera ni uravnotežena in pravilno vodena. Ker je cilj uravnotežene dvojne kariere, da posamezniki dosežejo svoj polni potencial v športu, medtem pa ohranijo akademsko odličnost, bo raziskovanje osredotočeno tudi na raziskovanje kulturnih razlik med športniki. Kulturno ozadje športnikov močno vpliva na njihove vrednote, obnašanja, pričakovanja in izkušnje, kar vpliva na to, kako usklajujejo športne obveznosti s šolskimi in športnimi cilji. Prepoznavanje in razumevanje teh kulturnih potreb je ključno za ustvarjanje podpornih programov, ki bodo oblikovani za različne potrebe športnikov iz različnih regij in kulturnih kontekstov. Na tovrstne dileme bo raziskovalec/ka iskal/a znanstveno podprte odgovore.

Eng.: The young researcher training program will focus on investigating social issues in sports. Using existing knowledge from practical work with athletes during career transitions, the researcher will study career transitions from the perspective of dual careers. The field of "dual careers," defined as "a career focused on both sport and education or work," has gained increased attention among researchers worldwide over the past decade.

During the training, the young researcher will learn to use both quantitative and qualitative methodologies. Additionally, they will have the opportunity to participate in European projects in the field of dual careers, such as those led by the mentor (FindMe, DC4Biathletes), and identify risks associated with poorly planned transitions (e.g., transitioning from youth to senior categories or from high school to university). These risks can lead to premature termination of a sports career or mental stress when the dual career is not balanced or properly managed. Since the goal of a balanced dual career is for individuals to reach their full potential in sport while maintaining academic excellence, the research will also focus on investigating cultural differences among athletes. The cultural background of athletes strongly influences their values, behaviors, expectations, and experiences, which impact how they balance sports commitments with academic and athletic goals. Recognizing and understanding these cultural needs is crucial for creating support programs tailored to the diverse needs of athletes from different regions and cultural contexts. The researcher will seek scientifically supported answers to these dilemmas.

5. Priloge, ki jih kandidat priloži k prijavi (Documents that the candidate submits with the application):

☒ **diplomska listina/potrilo o zaključku študijskega programa** (diploma certificate for study programme, with which the candidate has enrolled/ will enroll in a doctoral degree programme)

☒ **priloga k diplomii/ potrdilo o opravljenih obveznostih** (official transcript of all the grades for study programme, with which the candidate has enrolled/will enroll in a doctoral degree programme)

☒ **potrdilo o do sedaj opravljenih obveznostih z ocenami študijskega programa, s katerim se bo kandidat prijavil na študij** (*official transcript of all the grades the candidate has received so far for the study programme, with which the candidate will enroll to a doctoral degree programme*)

☒ **nagrade** (*awards (e.g. Prešeren Prize of the University of Ljubljana, Prešeren Prize of a University of Ljubljana member and/or another equivalent award)*)

☒ **bibliografija** (*bibliography*)

☒ **življenjepis** (*CV*)

☒ **motivacijsko pismo** (*motivation letter*)

☒ **opis dosedanjega sodelovanja pri raziskovalnem delu** (*description of the candidate's research work*)

☐ **osnutek idejne zasnove raziskovalnega dela** (*preliminary research proposal*)

☐ **priporočilno pismo** (*letter of recommendation*)

☐ **druge priloge** (*other attachments*)

Opis raziskovalnega dela (Research work description)

1. Članica UL (UL member):

Fakulteta za šport

2. Ime, priimek in elektronski naslov mentorja/ice (Mentor's name, surname and email):

Gregor Jurak, gregor.jurak@fsp.uni-lj.si
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3. Raziskovalno področje (Research field):

Kineziologija – pedagoški vidiki

4. Opis raziskovalnega dela (Research work description):

Vključuje morebitne dodatne pogoje, ki jih mora izpolnjevati kandidat/ka za mladega raziskovalca/ko, ki niso navedeni v razpisu za mlade raziskovalce (It includes any additional conditions that the candidate for a young researcher must meet, which are not listed in the call to tender for young researchers.).

Slov.:

Naslov programa: "Uporaba umetne inteligence za izboljšanje gibalne pismenosti in spodbujanje gibalno dejavnega učenja v šolah"

Pregled programa:

Ta raziskovalni program preučuje uporabo umetne inteligence (UI) za podporo razvoju gibalne pismenosti (GP) učencev in spodbujanje gibalno dejavnega učenja (GDU) v šolskih okoljih. V raziskovanju, ki bo vsebovalo tudi vidik etičnosti uporabe in preglednosti delovanja UI, bomo uporabili različno metodologijo, od sistematičnega pregleda literature, sooblikovanja, eksperimentalne študije ter razvoja in vrednotenja orodja, ki bo temeljilo na UI.

Cilji programa:

- Analizirati trenutne in potencialne aplikacije UI v izobraževanju, s poudarkom na športni vzgoji (ŠVZ) in GDU.
- Sooblikovati pomočnika UI z učitelji in mladostniki za podporo poučevanju in učenju vsebin, povezanih z GP in GDU.
- Razviti izobraževalne strategije, smernice in programe usposabljanja za učitelje in mladostnike o uporabi pomočnika UI za poučevanje/učenje GP in integracijo GDU.
- Tehnično razviti pomočnika UI za podporo poučevanju in učenju vsebin, povezanih z GP in GDU.
- Oblikovanje, izvajanje in ovrednotenje eksperimentalne študije v šolskem okolju za oceno učinkovitosti na pomočniku UI temelječe intervencije, na GP učencev, njihov čas sedenja in učne rezultate.

Komponente raziskovalnega programa:

- Delovni paket 1: Pregledi literature
 - Pregled literature: aplikacije UI v izobraževalnih okoljih: poudarek na ŠVZ in GDU
 - Pregled literature: kompetence učiteljev za uporabo aplikacij UI
 - Pregled literature: kompetence mladostnikov za uporabo aplikacij UI
 - Pregled literature: Prihodnje smeri orodij UI za izobraževanje
 - Sintezno poročilo: Prepoznavanje vrzeli in priložnosti za integracijo UI v ŠVZ in GDU
- Delovni paket 2: Sooblikovanje pomočnika UI
 - Delavnice sooblikovanja z učitelji za razvoj z UI podprtega orodja za izboljšanje pouka na področju GP in GDU
 - Delavnice sooblikovanja z mladostniki za razvoj z UI podprtega orodja za izboljšanje njihove GP
- Delovni paket 3: Tehnični razvoj pomočnika UI
 - Arhitektura infrastrukture
 - Razvoj in usposabljanje modela UI
 - Uporabniški vmesnik in izkušnja
 - Testiranje, uvajanje in vzdrževanje
- Delovni paket 4: Kompetence za uporabo pomočnika UI
 - Etika in preglednost pri uporabi pomočnika UI
 - Razvoj instrumenta za ocenjevanje kompetenc učiteljev pri uporabi pomočnika UI
 - Razvoj instrumenta za ocenjevanje kompetenc mladostnikov pri uporabi pomočnika UI

- Razvoj programa usposabljanja učiteljev za uporabo pomočnika UI pri poučevanju GP in integraciji GDU
- o Razvoj programa usposabljanja mladostnikov za uporabo pomočnika UI na potovanju GP
- Delovni paket 5: Eksperimentalna študija
 - Zasnova eksperimentalne študije v šolskem okolju za oceno učinkovitosti na pomočniku UI temelječi intervenciji, na GP učencev, čas njihovega sedenja in učne rezultate
 - Izvedba eksperimentalne študije
 - Vrednotenje izvedljivosti, uporabnosti in učinkovitosti na pomočniku UI temelječi intervenciji, na GP učencev, čas njihovega sedenja in učne rezultate
- Delovni paket 6: Diseminacija in implementacija
 - Razširjanje izsledkov raziskav prek publikacij, konferenc in delavnic.
 - Razvoj strategij, smernic in priporočil za učinkovito implementacijo UI pri poučevanju GP in integraciji GDU
 - Sodelovanje s šolami in izobraževalnimi organizacijami za spodbujanje na dokazih temelječih praks, podprtih z UI

Pričakovani rezultati:

- Celovito razumevanje potenciala UI za izboljšanje GP in spodbujanje GDU v šolah.
- Razvoj in ocena inovativnih orodij in intervencij, podprtih z UI, za ŠVZ in GDU.
- Na dokazih temelječe strategije za vključevanje UI v šolsko okolje.
- Izboljšana GP in zmanjšano sedeče vedenje med učenci.
- Izboljšani kognitivni in akademski rezultati s pomočjo GDU.
- Praktične smernice in priporočila za učitelje o učinkoviti uporabi UI v vsebinah, povezanih s telesno dejavnostjo v šolah.

Nadaljnji razvoj:

Izpopolnitev s posebnimi raziskovalnimi vprašanji, metodologijami in časovnimi okviri bo razvita v skladu z interesi doktorskega kandidata ter finančnimi in drugimi zmožnostmi.

Eng.:

Program Title: "Leveraging Artificial Intelligence to Enhance Physical Literacy and Promote Physically Active Learning in Schools"

Program Overview:

This research program investigates the application of Artificial Intelligence (AI) to support students' physical literacy (PL) development and promote physically active learning (PAL) within school settings. Addressing AI ethics and transparency, the program employs a mixed-methods approach, integrating literature reviews, co-design methodology, experimental study, and the development and evaluation of AI-powered tool.

Program Objectives:

- To analyze current and potential AI applications in education, focusing on physical education (PE) and PAL.
- To co-design an AI assistant with teachers and adolescents to support teaching and learning of PL and PAL-related content.
- To develop educational strategies, guidelines, and training programs for teachers and adolescents on using the AI assistant to teach/learn PL and integrate PAL.
- To technically develop an AI assistant to support teaching and learning of PL and PAL-related content.
- To design, implement, and evaluate an experimental study in school settings to assess the effectiveness of the AI assistant-based intervention on students' PL, sedentary time, and learning outcomes.

Research Program Components:

- **WP 1: Literature Reviews**
 - Literature Review: AI Applications in Educational Settings: Focus on PE and PAL
 - Literature Review: Teacher Competencies for AI Application Use
 - Literature Review: Adolescent Competencies for AI Application Use
 - Literature Review: Future Directions of AI Tools for Education
 - Synthesis Report: Identifying Gaps and Opportunities for AI Integration in PE and PAL

- **WP 2: Co-Design of AI Assistant**
 - Co-design workshops with teachers to develop an AI-supported tool for enhancing students' PL and PAL initiatives
 - Co-design workshops with adolescents to develop an AI-supported tool for enhancing their PL
- **WP 3: Technical Development of AI Assistant**
 - Architecture of infrastructure
 - AI model development and training
 - User Interface and Experience (UI/UX)
 - Testing, deployment, and maintenance
- **WP 4: Competencies for AI Assistant Use**
 - Ethics and transparency in AI Assistant use
 - Development of instrument to assess teacher competencies in AI Assistant Use
 - Development of Instrument to Assess Adolescent Competencies in AI Assistant use
 - Development of teacher training program for AI Assistant use in teaching PL and integrating PAL
 - Development of adolescent training program for AI Assistant use in PL journey
- **WP 5: Experimental Study**
 - Design of experimental study in school settings to assess the effectiveness of the AI Assistant-based intervention on students' PL, sedentary time, and learning outcomes.
 - Implementation of experimental study
 - Evaluation of feasibility, usability, and effectiveness of the AI Assistant-based intervention on students' PL, sedentary time, and learning outcomes.
- **WP 6: Dissemination and Implementation**
 - Dissemination of research findings through publications, conferences, and workshops.
 - Development of strategies, guidelines, and recommendations for effective AI Assistant implementation in PE and PAL.
 - Collaboration with schools and educational organizations to promote evidence-based AI-supported practices.

Expected Outcomes:

- A comprehensive understanding of AI's potential to enhance PL and promote PAL in schools.
- Development and evaluation of innovative AI-supported tools and interventions for PE and PAL.
- Evidence-based strategies for integrating AI into school settings.
- Enhanced PL and reduced sedentary behavior among students.
- Improved cognitive and academic outcomes through PAL.
- Practical guidelines and recommendations for educators on the effective use of AI in physical activity-related content in schools.

Further Development:

Refinement with specific research questions, methodologies, and timelines will be developed according to the PhD candidate's interests and funding and other opportunities.

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