

*The 28<sup>th</sup> International Scientific Conference  
“Educational Research and School Practice”*

**THE STATE  
PROBLEMS  
AND NEEDS  
OF THE MODERN  
EDUCATION  
COMMUNITY**

**BOOK OF PROCEEDINGS**

**Editors**

Jelena STEVANOVIĆ

Dragana GUNDOGAN

Branislav RANĐELOVIĆ



Российский университет  
дружбы народов



Belgrade, 2022.



**Institute for Educational Research, Belgrade, Serbia**

28<sup>th</sup> International Scientific Conference  
“Educational Research and School Practice”

# **The State, Problems, and Needs of the Modern Education Community**

December 9<sup>th</sup>, 2022  
Belgrade

## **BOOK OF PROCEEDINGS**

### **Editors**

Jelena STEVANOVIĆ  
Dragana GUNDOGAN  
Branislav RANĐELOVIĆ

# PROGRAM BOARD

## Chairwoman of the Program Board

**Jelena Stevanović, PhD**, Senior Research Associate, Institute for Educational Research, Belgrade, Serbia

## Members

- **Mara Cotič, PhD, Full Professor**, Faculty of Education, University of Primorska, Koper, Slovenia
- **Olga Borisovna Mikhailova, PhD, Associate Professor**, The Peoples' Friendship University of Russia, RUDN University, Moscow, the Russian Federation
- **Sergey Ivanovič Kudinov, PhD, Full Professor**, The Peoples' Friendship University of Russia, RUDN University, Moscow, the Russian Federation
- **Branislav Randelović, PhD, Associate Professor**, Institute for Education Quality and Evaluation, Belgrade, Serbia
- **Daniel Churchill, PhD, Full Professor**, Faculty of Education, The University of Hong Kong, Hong Kong
- **Vilmos Vass, PhD, Full Professor**, Budapest Metropolitan University, Budapest, Hungary
- **Nataša Vlah, PhD, Full Professor**, Faculty of Teacher Education, University of Rijeka, Croatia
- **Milan Pol, PhD, Full Professor**, Faculty of Arts, Masaryk University, Brno, Czech Republic
- **Djuradj Stakić, PhD, Professor Emeritus**, Pennsylvania State University, Pennsylvania, USA
- **Snežana Marinković, PhD, Full Professor**, Faculty of Education in Užice, University of Kragujevac, Užice, Serbia
- **Ana Pešikan, PhD, Full Professor**, Faculty of Philosophy, University of Belgrade, Belgrade, Serbia

- **Mile Srbinovski, PhD, Full Professor**, Institute for Environment and Health, South East European University, Tetovo, Republic of North Macedonia
- **Slobodanka Antić, PhD, Associate Professor**, Faculty of Special Education and Rehabilitation, University of Belgrade, Belgrade, Serbia
- **Tina Štemberger, PhD, Associate Professor**, Faculty of Education, University of Primorska, Koper, Slovenia
- **Elizabeta Karalić, PhD**, Institute for Education Quality and Evaluation, Belgrade, Serbia
- **Emilija Lazarević, PhD, Principal Research Fellow**, Institute for Educational Research, Belgrade, Serbia
- **Nikoleta Gutvajn, PhD, Senior Research Associate**, Institute for Educational Research, Belgrade, Serbia
- **Slavica Ševkušić, PhD, Senior Research Associate**, Institute for Educational Research, Belgrade, Serbia
- **Milica Marušić Jablanović, PhD, Senior Research Associate**, Institute for Educational Research, Belgrade, Serbia
- **Dušica Malinić, PhD, Senior Research Associate**, Institute for Educational Research, Belgrade, Serbia
- **Jelena Stanišić, PhD, Research Associate**, Institute for Educational Research, Belgrade, Serbia

## ORGANIZATIONAL BOARD

- **Dragana Gundogan, PhD, Research Associate**, Institute for Educational Research, Belgrade, Serbia
- **Marija Ratković, MA, Research Trainee**, Institute for Educational Research, Belgrade, Serbia
- **Iva Medojević, MA, PhD student**, Teacher Education Faculty, University of Belgrade, Belgrade, Serbia

# ORGANIZERS

The Institute for Educational Research (Belgrade, Serbia) in cooperation with the Faculty of Education, University of Primorska (Koper, Slovenia), the Peoples' Friendship University of Russia, RUDN University (Moscow, the Russian Federation), and the Institute for Education Quality and Evaluation (Belgrade, Serbia).

*Note.* This book was funded by the Ministry of Education, Science, and Technological Development of the Republic of Serbia (Contract No. 451-03-68/2022-14/200018).

---

CIP - Каталогизација у публикацији  
Народна библиотека Србије, Београд

37.091::004(082)  
37.018.43:004.738.5(082)  
371.13(082)  
37.091.33(082)

INTERNATIONAL Scientific Conference "Educational Research and School Practice" (28 ; 2022 ; Beograd)  
The State, Problems, and Needs of the Modern Education Community : book of proceedings / 28th International Scientific Conference "Educational Research and School Practice", December 9th , 2022 Belgrade ; editors Jelena Stevanović, Dragana Gundogan, Branislav Randelović. - Belgrade : Institute for Educational Research, 2022 (Beograd: MC Most). - 255 str. ; 24 cm  
Tiraž 50. - Napomene i bibliografske reference uz tekst. - Bibliografija uz svaki rad. - Registar.

ISBN 978-86-7447-161-6

- а) Информациона технологија -- Образовање -- Зборници
- б) Школство -- Реформа -- Зборници
- в) Наставници-- Стручно усавшавање -- Зборници
- г) Настава -- Иновације -- Зборници
- д) Образовна технологија --Зборници
- ђ) Учење на даљину -- Зборници

COBISS.SR-ID 84360457

---

---

# CONTENT

## PLENARY

*Daniel Churchill*

TRANSDISCIPLINARITY AND WHAT IT MEANS FOR EDUCATION ..... 12

*Tímea Mészáro and Vilmos Vass*

THE LINKS BETWEEN A CHANGED VISION OF LEARNING  
AND PROJECT-BASED TEACHING ..... 20

*Slobodanka Antić*

LANGUAGE IN THE CLASSROOM: HOW TO SUPPORT  
THE DEVELOPMENT OF FUNCTIONAL LITERACY ..... 29

*Slavica Ševkušić*

PROFESSIONAL INTERESTS OF FINAL GRADE PRIMARY  
SCHOOL STUDENTS IN SERBIA: A CASE STUDY ..... 35

*Jelena Stevanović*

THE STATE MATRICULATION EXAM IN THE REPUBLIC OF SERBIA:  
THE HIGH SCHOOL TEACHERS' PERSPECTIVE ..... 45

---

## MODERN APPROACHES TO LEARNING AND TEACHING

*Dunja Anđić and Sanja Tatalović Vorkapić*

HOW MUCH DO CHILDREN LOVE NATURE? VALIDATION  
OF THE BIOPHILIA INTERVIEW AND A REVISED CONNECTEDNESS  
TO NATURE INDEX AMONG PRESCHOOL CHILDREN..... 58

*Vladeta Milin*

STRUCTURING LESSONS OR STRUCTURING KNOWLEDGE  
– WHAT DOES IT TELL US ABOUT THE TEACHING PRACTICE? ..... 65

*Sanela Hudovernik and Nastja Cotič*

THE IMPLEMENTATION OF MATHEMATICAL ACTIVITIES  
IN KINDERGARTEN ..... 71

*Dušica Malinić, Ivana Đerić and Slavica Maksić*

“WE HAVE LOST THE COMPASS  
OF WHAT EDUCATION SHOULD LOOK LIKE”:  
STUDENT CONCERNS ABOUT SCHOOLING DURING  
THE COVID-19 PANDEMIC..... 78

*Marija Stojanović, Branislava Popović-Čitić,*

*Lidija Bukvić Branković, Marina Kovačević-Lepojević*

COPING STRATEGIES OF PRIMARY SCHOOL TEACHERS  
IN SERBIA DURING THE COVID-19 PANDEMIC ..... 84

*Marica Travar and Slađana Miljenović*

REFORM OF THE FIRST TRIAD IN PRIMARY SCHOOLS  
IN THE REPUBLIC OF SRPSKA FROM THE TEACHERS' PERSPECTIVE ..... 91



---

<i>Olivera J. Đokić and Neda D. Osmokrović</i> YOUNG PUPILS' INTUITIVE UNDERSTANDING AND STRATEGIES OF AREA MEASUREMENT .....	96
<i>Milica Marušić Jablanović, Jelena Stanišić and Slađana Savić</i> PREDICTORS OF PRO-ENVIRONMENTAL BEHAVIOR – THE RESULTS OF A PILOT STUDY ON ENVIRONMENTAL LITERACY .....	106
<i>Dunja Anđić and Karin Terzić</i> TEACHERS' VIEWS ON THE METHOD OF PRACTICAL WORK IN TEACHING THE SUBJECT OF NATURE AND SOCIETY – THE STATE AND CHALLENGES OF THE PRACTICE.....	114
<i>Li Ling-E and Wang Xiao-Jun</i> RUSSIAN LANGUAGE EXAM AND EDUCATION IN CHINA – A COMPARISON WITH JAPANESE .....	121
<i>Irina Tivyaeva and Diana Abdulmianova</i> DIGITAL POLITENESS IN DISTANCE AND BLENDED LEARNING: A CASE OF INTERPRETER TRAINING .....	126
<i>Emilija Lazarević, Jelena Stevanović and Luka Mijatović</i> EDUCATIONAL STANDARDS OF ACHIEVEMENT IN LOWER PRIMARY EDUCATION: CLASS TEACHERS' OPINIONS.....	131
<i>Nataša Stanković Šošo</i> IMPROVING THE READING COMPETENCE OF ELEMENTARY SCHOOL STUDENTS (ON THE EXAMPLE OF THE NOVEL HAJDUCI BY BRANISLAV NUSIĆ) .....	139

---

# THE PROFESSIONAL DEVELOPMENT AND COMPETENCIES OF EDUCATIONAL WORKERS

*Olga B. Mikhailova*

STRATEGIES FOR THE DEVELOPMENT OF A MODERN TEACHER:  
LEADERSHIP AND INNOVATIVENESS ..... 148

*Jelena Stanišić, Dušica Malinić and Ivana Đerić*

THE TEACHER AS THE INITIATOR OF CHANGE:  
TURNING A BORING TOPIC INTO AN ENGAGING LESSON ..... 153

*Renata Čepić*

CHALLENGES AND OPPORTUNITIES OF STRENGTHENING TEACHER  
IDENTITY IN THE CONTEXT OF PROFESSIONAL DEVELOPMENT ..... 161

*Aleksandra Maksimović, Jelena Đurđević Nikolić and Filip Stašević*

SCIENCE TEACHERS' PERCEPTIONS  
ABOUT THEIR PEDAGOGICAL EDUCATION:  
CASE STUDY OF THE FACULTY  
OF SCIENCE UNIVERSITY OF KRAGUJEVAC ..... 169

*Isidora Korać*

TWO DISCOURSES OF UNDERSTANDING HORIZONTAL LEARNING..... 176

*Zorana Matićević*

TEACHERS' ATTITUDES TOWARDS TITLE PROMOTION  
AS AN INTEGRAL PART OF PROFESSIONAL DEVELOPMENT..... 181

*Nina Sungurova and Yulija Akimkina*

STUDENTS' ACADEMIC MOTIVATION  
IN CONDITIONS OF BLENDED LEARNING ..... 188

# PROFESSIONAL INTERESTS OF FINAL GRADE PRIMARY SCHOOL STUDENTS IN SERBIA: A CASE STUDY<sup>5</sup>

Slavica Ševkušić<sup>6</sup>

*Institute for Educational Research, Belgrade, Republic of Serbia*

---

## Introduction

Interests are among the most significant predictors of educational choices, degree completion, occupational choices, and job satisfaction (Su, Rounds & Armstrong, 2009). In choosing an occupation, Super (1980) attaches the greatest importance to professional interests and believes that interests in certain occupations are formed as a result of intra-individual and individual-environment interactions (cited in: Brančić, 1986). Despite definitional differences, professional development theorists have reached the consensus that interests have a dispositional basis. They have also illuminated the complexity and development of the phenomenon as well as the factors that influence the formation of interest (Rounds & Su, 2014). It has been widely assumed that the establishment of interests occurs in childhood. Research evidence has demonstrated that the patterns of student interests are fairly stable between grades 8 and 12. A key assumption involved in these studies is that interests themselves do not change much over time and that they serve a guiding function in career decision making about careers (Tracey, Robbins & Hofsess, 2005).

Super (1980) distinguishes five stages in career development, the first of which is marked by the development of self-concept and attitudes and takes place during primary education when the development of self-concept and attitudes dominates. At this stage,

---

<sup>5</sup> *Note.* This research was funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia (Contract No. 451-03-68/2022-14/200018).

<sup>6</sup> E-mail: ssevkuusic@gmail.com

students are expected to develop work habits and positive self-evaluation, so that they could effectively explore career opportunities in the subsequent exploration phase. The crystallization and specification of vocational interests appear to be developmental tasks that begin at these ages and are realized at older ages (cited in: Barjaktarov & Opačić, 2018). In the eighth grade of primary school, the first decisions are made regarding continuing or leaving school, the choice of secondary school, and the future career direction. These decisions are influenced by interests as well as the assessment of one's own competence in different domains of activity (Brančić, 1986). Therefore, it is important for young people to recognize and evaluate their own abilities, traits, and interests as well as to receive relevant information about the opportunities and conditions offered by different professions. In this sense, the key areas of a school psychologist's work include professional orientation and counseling, which can help young people overcome problems that are characteristic of this stage of career development.

To examine professional interests of eighth-grade primary school students in Serbia, school psychologists use the Test of Professional Interests – TPI (Dragović *et al.*, 2002). The test is recognized by the Society of Psychologists of Serbia and in addition to being widely used in professional orientation and counseling in the school practice, the instrument is also employed for research purposes (Luković & Čizmić, 2012). The authors of the test reported satisfactory metric characteristics and high reliability coefficients (for all domains of interests, Cronbach's alpha coefficient ranged from .89 to .95), finding the test to be objective, diagnostically valid, and useful in differentiating students with stronger professional aspirations. Norms for the test were developed on a sample of 340 eighth-grade students from urban and rural areas. However, earlier research showed that some psychometric characteristics of the test were not acceptable. Identified as the main problem was the lack of different norms with regard to student gender (Trogrić & Vasić, 2002). An analysis demonstrated that the discriminativeness of the test and content validity were problematic (due to the absence of items related to modern occupations such as IT, sports, management, and entrepreneurship). Therefore, the authors concluded that the use of this test in the practice of psychological counseling was of „questionable utility“ (Kostić & Vlajić, 2004: 124).

Having in mind the importance of students' professional interests for their further education and work, the aim of this research was to identify professional interests of students in Serbia at the end of primary education and examine potential interest-

shaping factors. Furthermore, our intention was to consider the relevance of the TPI for the school practice, based on the obtained results.

We posed the following research questions: (a) What is the intensity of students' interest in occupations offered in the test and which professions do students like most and least? (b) Are students' gender and school achievement important factors for their professional interests? (c) How do the scores of students in our sample compare to the test norms obtained on the standardization sample?

## **Method**

We opted for a case study as a convenient research design. As the case in point, we selected a medium-sized primary school with three eighth-grade classes, located in a suburban settlement (with some characteristics of a rural environment) about 10 km from the center of Belgrade.

*Sample.* We tested 243 eighth-grade students (123 girls, 120 boys) from three consecutive school years (2015/16, 2016/17, and 2017/18). Students' average age was 14.3 years.

*Measures and instruments.* In order to identify students' professional interests, we used the TPI, which measures interest intensity on a four-point scale (1-I am not interested at all, 2-I am slightly interested, 3-I am moderately interested, and 4-I am very interested) for ten domains of interest (Administration, Security, Technical and Craft Work, Culture, Science, Agriculture, Hospitality, Trade, Aesthetic Design, and Humanitarian and Healthcare Work). The test consists of 120 items determined by factor analysis as the most predictive of the ten areas of interest that the test measures. In each interest domain, a respondent can score a minimum of 12 and a maximum of 48 points, with the total TPI score ranging from 120 to 480 points. Test reliability (Cronbach's alpha) for our sample ranged from .83 to .91 for each of the 10 occupational domains.

*Procedure.* The original pen-and-paper version of the TPI was adapted for automated application in the Microsoft Excel program, which facilitated and accelerated

the process of examination and data collection.<sup>7</sup> Testing was done during April and May each year.

Measures of *school achievement* were operationalized as the average grades in the subjects of the Serbian Language and Literature and Mathematics at the end of the seventh grade and the grade point average at the end of the seventh grade. Students' grades were taken from official school documents.

*Data processing.* We used descriptive statistics, *t*-test, and linear correlation (Pearson's *r*).

## **Results and Discussion**

*The intensity and domains of students' professional interests.* The average TPI score for the entire sample was close to 206 points ( $M=205.9SD=50.20$ ), indicating that students were not particularly interested in occupations offered in the test. More precisely, for 76% of occupations stated that they were slightly interested, while for 23% of occupations, they declared that they were not interested at all. There was no occupation in which students were very interested.

Table 1 presents descriptive statistics for the end domains of interest, ranked according to the mean values. Students were most interested in occupations in the domain of Culture, and they expressed the greatest liking for the occupation labeled as *Working as a Member of a Film Crew*. This was also the only occupation that students liked at the level of medium intensity.

Occupations in Agriculture and Technical and Craft Work were the least attractive to students. They expressed a slightly greater interest in other domains, but it was still of low intensity. Similar results were obtained in a 2010 study conducted on a sample of eighth-graders from two primary schools in Belgrade (Luković & Čizmić, 2012).

---

<sup>7</sup> Student testing and relevant data collection and processing were conducted by the school psychologist, Ljubomir Stojanović.

**Table 1.** *Descriptive Statistics of Professional Interests – the TPI (N=243)*

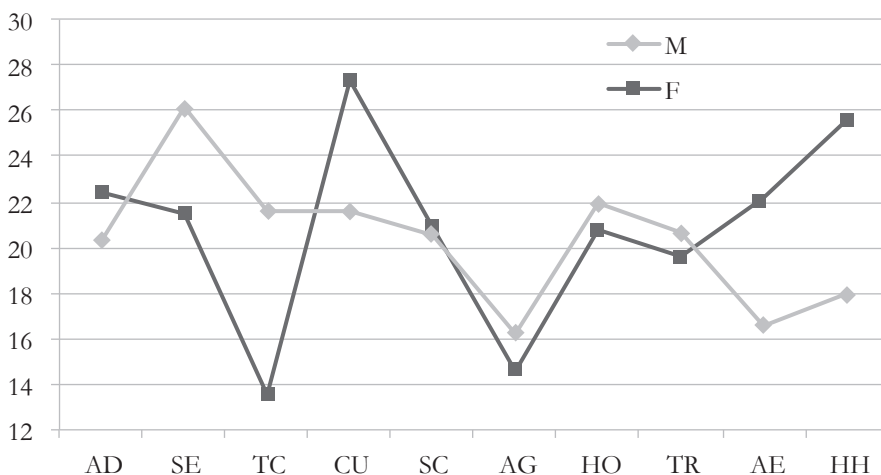
Domains of interest	Min	Max	Mean	SD
Culture (CU)	12	46	24.55	9.308
Security (SE)	12	48	23.79	9.797
Humanitarian and Healthcare Work (HH)	12	47	21.87	9.390
Administration (AD)	12	48	21.40	7.641
Hospitality (HO)	12	42	21.37	9.810
Science (SC)	12	46	20.68	8.113
Trade (TR)	12	47	20.09	6.683
Aesthetic Design (AE)	12	41	19.43	7.537
Technical and Craft Work (TC)	12	44	17.47	8.350
Agriculture (AG)	12	47	15.33	5.874

Our results were highly similar to the test norms in most domains of interest. However, statistically significant deviations from the norms were found in two domains, Security and Trade: our participants liked Security professions significantly more ( $t=-2.46, p<.001$ ) and Trade professions significantly less ( $t=2.32, p<.001$ ). When standardizing the test, the authors observed that students from urban areas generally had a more developed interest in the field of Trade than students from rural settlements, which means that our participants showed similarities with the latter. This finding might be explained by some characteristics of the school's socio-economic context. Although the authors claim that "the place of residence does not affect the differences in the professional interests of students" (Dragović *et al.*, 2002: 21), the relationship between students' place of living and professional interests should be examined more carefully.

*Gender and professional interests.* Compared to the standardization sample, where gender did not appear to be a significant source of variance in student interests (Dragović *et al.*, 2002: 21), in our sample, we found significant differences between boys and girls for six interest domains (Graphic 1). Boys showed a greater interest in occupations from the Security and Technical and Craft Work domains and girls were more interested in occupations encompassed by the domains of Culture, Aesthetic Design, and Humanitarian and Healthcare Work (all differences were significant at the .001 level). Significant differences also existed for 68 out of 120 occupations (all at the

.001 level). For example, boys showed a keener interest in *Repairing an Electric Motor* and *Installing and Connecting Parts of Electrical Installations*, while girls were more interested in *Designing Seasonal Models of Clothes* and *Detecting and Treating People's Diseases*.

**Graph 1.** Gender and Professional Interest Domains



Our findings are consistent with research evidence in this field, with gender emerging as a central predictor of students' educational choices (Lapan, Shaughnessy & Boggs, 1996). Namely, gender has been described as the most important factor influencing children's occupational preferences by the early primary school years. Thus, differences in children's interest patterns are clearly associated with socially circumscribed gender roles and have been attributed to gender identity development and the general process of occupational role knowledge development (Hartung, Porfeli & Vondracek, 2005). In the first comprehensive meta-analysis on sex differences in vocational interests, Su, Rounds, and Armstrong (2009) synthesized four decades' worth of results from interest inventories and found large sex differences, with men preferring scientific, technical, and mechanical activities and women showing a greater interest in social and artistic domains. These differences have also been demonstrated cross-culturally (Chun, Glosenber, Tracey, Blustein & Foster, 2022). For example, in a study conducted on a sample of 421 university students and employees from Serbia, Opačić (2014) employed an instrument based on the Holland vocational interest model and found significant differences between male and female respondents in almost all interest domains.



*School achievement and professional interests.* Descriptive statistics of school achievement measures in our sample were as follows: the Serbian Language and Literature (M=3.78, SD=1.059), Mathematics (M=3.39, SD=1.160), and the grade point average (M=4.08, SD=0.739). According to the frequency distribution of the grade point average, nearly 80% of students achieved grade 4 or 5, while the number of students whose average grade was 2 at the end of the seventh grade was negligible (1.2%).

The analysis of the relationships between school achievement measures and test scores showed that there were significant correlations for six groups of occupations and the total TPI score (Table 2).

**Table 2.** *Correlations (r) Between School Achievement Measures and Professional Interest Test Scores*

Interest Domain	The Serbian Language <sup>7</sup>	Mathematics <sup>7</sup>	Overall Grade Point Average <sup>7</sup>
Security	-.269**	-.281**	-.329**
Technical/Craft Work	-.385**	-.269**	-.352**
Agriculture	-.206**	-.168*	-.202**
Hospitality	-.229**	-.160*	-.173**
Trade	-.199**		-.160*
Humanitarian/Healthcare Work		-.147*	
TPI Score	-.208**	-.199**	-.205**

\*\*  $p < .001$

\*  $p < .005$

The results on the TPI obtained the highest correlations with the grade in the Serbian Language and the overall achievement at the end of the seventh grade, while the correlations with the grade in Mathematics were somewhat weaker (except for the occupational group of Humanitarian and Healthcare Work). All correlations were negative, which means that students' level of academic achievement was inversely proportional to their affinity for professions on the test. This was especially true for the following groups of professions (ranked by correlation strength): Technical and Craft Work, Security, Agriculture, and Hospitality. Significant relations were also found between measures of school achievement and individual occupations. On the other

hand, the authors of the TPI reported that differences in students' school achievement with regard to their professional interests are so rare and sporadic that they can be considered irrelevant (Ibid, 2002: 23). This finding may be due to the fact that students reported their grades themselves, so the measure of school achievement may not have been sufficiently objective.

The finding we obtained was expected, given that students with higher levels of academic achievement tend to be more inclined to continue their education in general education schools (grammar schools) and specific occupations (vocational schools) are not attractive to them. This finding is also consistent with theories of professional interests and research evidence. Holland (1959) believes that the choice of occupation is a direct expression of an individual's personality, motivation, knowledge, and abilities. Ginzberg (1951) claims that people's occupation-related decisions are confirmed or rejected depending on how they perceive their abilities, whereby school performance affects their perception of their own abilities (cited in: Opačić, 2014). Tracey (2002) noted that theories of professional interests widely support the interest-competence link, suggesting that children are more likely to develop an interest in activities in which they feel competent. Patrick, Care, and Ainly (2011) found that professional interests, school grades, and academic self-efficacy were significant predictors of educational choices at the end of primary school. In a study conducted on a sample of eight-graders, Barjaktarov and Opačić (2018) found positive relationships between academic self-concept for the domains of school subjects and professional interests conceptualized according to Holland's theory.

## **Conclusion**

The results of the case study suggest that intensity- and domain-wise, students' interests at the end of primary school have not changed significantly compared to earlier research conducted in Serbia. Our participants were most interested in occupations in the field of culture and least interested in the fields of agriculture and technical and craft work. The generally faint interest of students in occupations in the test can be partially explained by the content of statements expressing outdated occupations, some of which no longer exist. This means that it is necessary to revise the content of numerous items

and include occupations that are particularly interesting to young people today, such as the IT sector, sports, and entrepreneurship.

The comparison of our results with the TPI norms confirmed the findings of previous research suggesting that the test should have different norms for boys and girls. Likewise, we obtained differences in occupational preferences that indicate that it should be determined whether special norms are needed for students from urban and rural settlements. The results on the significant relations between school achievement and students' professional interests indicate that in the school practice, special attention should be paid not only to the development of competencies in various fields of interest, but also to students' assessments of their own competencies.

Finally, we would like to add that in the psychological practice in Serbia, there are two more tests for measuring professional interests for the purposes of professional orientation and counseling of primary and secondary school students: TPO-3 (Kostić, Vlajić & Randelović, 2011) and RIASEC-OK (Opačić, 2014). Both tests have been shown to have good psychometric characteristics and compensate for some of the main shortcomings of the TPI instrument.

**Keywords:** professional interests, eight-grade primary school students, the Test of Professional Interests – TPI, gender, school achievement.

## References

- Barjaktarov, Z. & Opačić, G. (2018). Povezanost akademskog samopoimanja i profesionalnih interesovanja učenika završnog razreda osnovne škole [The relationship between academic self-concept and professional interests of final grade primary school students], *Zbornik Instituta za pedagoška istraživanja*, 50(1), 135–157. <https://doi.org/10.2298/ZIPI1801135B>
- Brančić, B. (1986). *Psihološke teorije izbora zanimanja* [Psychological theories of occupational choice]. Beograd: Naučna knjiga.
- Chun, T., Glosenber, A., Tracey, T., Blustein, D. & Foster, L. (2022). Are gender differences in vocational interests universal? Moderating Effects of Cultural Dimensions, *Sex Roles*, 87, 327–349
- Dragović M., Balkovoj, M., Mirković B. & Kozić, S. (2002). *Priručnik za test profesionalnih interesovanja* [Vocational interest test manual]. Beograd: Centar za primenjenu psihologiju.

- Hartung, P. J., Porfeli, E. J. & Vondracek, F. W. (2005). Child vocational development: A review and reconsideration. *Journal of Vocational Behavior*, 66, 385–419. doi:10.1016/j.jvb.2004.05.006
- Holland, J. L. (1959). A theory of vocational choice. *Journal of Counseling Psychology*, 6, 35–45.
- Kostić, P. & Vlajić, I. (2004). Unakrsna validacija Testa profesionalnih interesovanja (TPI) [Cross-validation of the Vocational Interests Test], *Godišnjak za psihologiju*, 3(3), 111–126.
- Kostić, P., Vlajić, A. & Randelović, D. (2011). *Priručnik za test profesionalnih opredeljenja TPO-3* [Manual for the Test of professional Attitudes]. Beograd: Centar za primenjenu psihologiju.
- Lapan, R., Shaughnessy, P. & Boggs, K. (1996). Efficacy expectation and vocational interests as mediators between sex and choice of math/science college majors: A longitudinal study. *Journal of Vocational Behavior*, 49, 277–291.
- Luković, S. & Čizmić, S. (2012). Povezanost preferencija životnih stilova i profesionalnih interesovanja petnaestogodišnjaka [Connection of life-style preferences and professional interests in fifteen-year-old pupils], *Primenjena psihologija*, 1, 81–108. <https://doi.org/10.19090/pp.2012.1.81-108>
- Opačić, G. (2014). *Profesionalna selekcija: elementi, izazovi i jedno praktično rešenje Knjiga III: Profesionalna interesovanja* [Professional selection: elements, challenges, and a practical solution – The Book III: Professional interests]. Beograd: Centar za primenjenu psihologiju.
- Patrick, L., Care, E. & Ainely, M. (2011). The relationship between vocational interests, self-efficacy, and achievement in the prediction of educational pathways. *Journal of Career Assessment*, 19(1), 61–74. DOI: 10.1177/1069072710382615
- Rounds, J. & Su, R. (2014). The nature and power of interests. *Current Directions in Psychological Science*, 23(2), 98–103. <https://doi.org/10.1177/0963721414522812>
- Su, R., Rounds, J. & Armstrong, P. I. (2009). Men and things, women and people: a meta-analysis of sex differences in interests. *Psychological Bulletin*, 135(6), 859–84. doi:10.1037/a0017364
- Tracey, T. J. G. (2002). Development of interests and competency beliefs: A 1-year longitudinal study of fifth-to eighth-grade students using the ICA-R and structural equation modeling. *Journal of Counseling Psychology*, 49, 148–163.
- Tracey, T. J., Robbins, S. B. & Hofstess, C. D. (2005). Stability and change in interests: A longitudinal study of adolescents from grade 8 through 12, *Journal of Vocational Behavior*, 66(1), 1-25. <https://doi.org/10.1016/j.jvb.2003.11.002>

## REVIEWERS

- **Milica Marušić Jablanović**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- **Emilija Lazarević**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- **Dušica Malinić**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- **Jelena Stanišić**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- **Ivana Đerić**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- Prof. **Emina Kopas-Vukašinović**, Faculty of Education, University of Kragujevac (Jagodina, Serbia)
- **Milja Vujačić**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- **Rajka Đević**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- **Slavica Ševkušić**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- Prof. **Blanka Bogunović**, Faculty of Music, University of Arts in Belgrade (Belgrade, Serbia)
- **Smiljana Jošić**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- **Snežana Mirkov**, PhD, The Institute for Educational Research (Belgrade, Serbia)

- **Nada Ševa**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- **Dragana Gundogan**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- **Mladen Radulović**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- **Vladimir Džinović**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- **Marina Kovačević Lepojević**, PhD, The Institute for Educational Research (Belgrade, Serbia)
- Prof. **Milan Stančić**, Faculty of Philosophy, University of Belgrade, Department of Pedagogy and Andragogy (Belgrade, Serbia)
- Prof. **Mile Srbinovski**, Mother Teresa University, Faculty of Technical Sciences (Skopje, North Macedonia)
- Prof. **Andreas Oikonomou**, School of Pedagogical and Technological Education (Thessaloniki, Greece)
- Prof. **Milan Pol**, Faculty of Arts, Masaryk University (Brno, Czech Republic)
- Prof. **Tina Štemberger**, Faculty of Education, University of Primorska (Koper, Slovenia)
- Prof. **Luka Mijatović**, Faculty of Special Education and Rehabilitation, University of Belgrade (Belgrade, Serbia)

**BOOK OF PROCEEDINGS**

28<sup>th</sup> International Scientific Conference  
“Educational Research and School Practice”

**THE STATE, PROBLEMS, AND NEEDS  
OF THE MODERN EDUCATION COMMUNITY**

**Publisher**

Institute for Educational Research

**For the publisher**

Nikoleta Gutvajn

**Editors**

Jelena Stevanović  
Dragana Gundogan  
Branislav Randelović

**Proofreader**

Aleksandra Ilić

**Copy Editor**

Ivana Đerić

**Print run**

50

**Cover design**

Branko Cvetić

**Graphic processing**

Branko Cvetić

**Printed by**

Kuća štampe plus

<https://www.ipisr.org.rs/images/naucni-skupovi/book-of-proceedings.pdf>

ISBN 978-86-7447-161-6







ISBN 978-86-7447-161-6