

# A WAY TO MORE EFFECTIVE EDUCATION: PROSPECTIVE TEACHERS' INTEREST IN SERVICE-LEARNING

*Koraljka Modić Stanke\**

*Valentina Ružić\*\**

*Aleksandra Mindoljević Drakulić\*\*\**

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**Abstract.** *To become a teacher one must possess a minimum of pedagogical competences, obtained by the completion of pedagogical-psychological-didactic-methodical education. It is assumed that it will be followed by professional growth in the foreseeable future – but that does not necessarily happen. One way to provide a better head start for prospective teachers and their future students is to implement a service-learning (S-L) – a pedagogical approach that combines academic coursework with voluntary service in the community. The aim of this study is to determine the initial interest of students for engaging in service-learning within compulsory courses of pedagogical-psychological-didactic-methodical education and to investigate the relationship between the level of service-learning information and the reported interest in service-learning.*

*Participants were 42 graduate students, divided into two groups – experimental (attended a lecture on service-learning between measurements) and control group (no intervention between two measurements). Results demonstrate high(est) interest for service learning within the course Psychology of Education. Prospective teachers that attended the lecture on service-learning became more interested in it. Most of the students think that engaging in service-learning would lead to higher motivation and better knowledge of the course. These findings should encourage teachers and policy-makers to consider the implementation of S-L in educational institutions in order to improve educational efficiency on all levels of the educational system.*

**Keywords:** *service learning, student motivation, student interest, teacher education*

## 1. INTRODUCTION

Try to recall the time you spent in classrooms – did you have some teachers that you preferred over others? And by

preference we don't mean those teachers that were less demanding or had easier exams; we are talking about those teachers that made their subject interesting, were

\*Koraljka Modić Stanke, Social Work Study Centre, Faculty of Law, University of Zagreb, Nazorova 51, Zagreb, Croatia, Phone: +385 91 669 5912; E-mail: [kmodicstanke@pravo.hr](mailto:kmodicstanke@pravo.hr)

\*\* Valentina Ružić, Naklada Slap, Centre for Education and Research, Miramarska cesta 105, Zagreb, Croatia, Phone: +385 91 515 9618; E-mail: [valentina@nakladaslap.com](mailto:valentina@nakladaslap.com)

\*\*\* Aleksandra Mindoljević Drakulić, Centre for Teacher Education, Faculty of Humanities and Social Sciences, University of Zagreb, Ivana Lučića 3, Zagreb, Croatia, Phone: +385 91 446 6888; E-mail: [amindolj@ffzg.hr](mailto:amindolj@ffzg.hr)

able to capture the interests of the class, encouraged you to think about the ways you can apply school knowledge in everyday life and to think of the ways you can contribute to the society you live in. Teachers that, along with their professional competencies, also had highly developed teaching skills and kept encouraging their students to be the best possible versions of themselves. How many such teachers did you have? No matter what the number is, it's still too small.

In order to get a job as a teacher or as an associate in an educational institution, besides getting a college diploma, one must obtain pedagogical competencies, i.e. he/she has to complete pedagogical-psychological-didactic-methodical education - PPDME<sup>1</sup>. This means that all students who strive for a teaching profession, along with students that consider teaching as a back-up plan while waiting for their dream job, have to enroll (during college or after) in PPDME study programs. This practice is a way to ensure that all teachers working in educational institutions start their careers with at least a minimum of teaching competencies needed to perform their work efficiently. Of course, since engagement in continuous professional development is considered to be one of the professor's statutory professional duties (Birch, Balcon & Bourgeois, 2018), the growth of pedagogical competencies for each teacher throughout his career is expected. However, since teacher's professional development depends on several factors - personal, related to the task or duty, or related to the environment (Kwakman, 2003; Grangeat & Gray, 2007), in many cases, the process of professional growth might be (too) slow and not (as) effective. Having in mind that teachers play the key role in student's achievement

(Cochran-Smith & Fries, 2005) next question arises: are we, as a society, satisfied with the idea that we are providing our future generations with "good-enough" teachers, trusting that most of them would improve in a given time? And if the answer is "no" – what can we do to improve pedagogical competencies of prospective teachers while they are still in college, enabling them to be more skilled, motivated and knowledgeable teachers even at the very beginning of their career? One way to do so is to implement a service-learning into the educational system.

Service-learning (S-L) is an umbrella term that encompasses several different programs, additionally adjusted to fit the needs of the particular university and local community – and as such, it is defined in a wide variety of ways. One definition, proposed by Europe Engage project indicates: "*Service-learning is an innovative pedagogical approach that integrates meaningful community service or engagement into the curriculum and offers students academic credit for the learning that derives from active engagement within community and work on a real world problem. Reflection and experiential learning strategies underpin the process and the service is linked to the academic discipline*" (McIlrath et al., 2016, p. 5).

One might say that S-L has a long past, but a rather short history. Its roots can be traced to the work of John Dewey, Jean Piaget and Kurt Lewin - founders of the experiential learning approach (Jacoby, 2003) but it wasn't before the 1990s when we witnessed tremendous growth in S-L in the US – slowly spreading to all parts of the world. In the last twenty years, S-L has become one of the leading practices in educational

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<sup>1</sup> See Croatian legislation: Zakon o odgoju i obrazovanju u osnovnoj i srednjoj školi, NN, br. 87/08, 86/09, 92/10, 105/10, 90/11, 5/12, 16/12, 86/12, 126/12, 94/13, 152/14 & 07/17

reform and the restructuring of the ways teachers teach students to learn, lead, and serve (Price, 2011).

Exponential interest in service-learning is the result of rapid development and fluctuating environments our students encounter on a daily basis – and some new needs that cannot be met by firmly relying on the traditional educational curriculum. Some authors (Ravitch, 2010; Daniels et al., 2010) advocate the need for change in the educational system, realizing that the new mission of educational system is “*to prepare students to work at jobs that do not yet exist, creating ideas and solutions for products and problems that have not yet been identified, using technologies that have not yet been invented*” (Darling-Hammond (2010, p. 2). Therefore, if we want to achieve the transformation of the educational system and teacher’s preparation in order to meet the challenges of our time, we need to move beyond focusing on the transmission of information and instead concentrate on helping students learn on their own (Darling-Hammond, 2010; Tietjen, 2016). This is consistent with learner-centered psychological principles (advocating problem-solving, creativity, critical thinking, etc.) proposed by the American Psychological Association (1997) to provide a framework for school reform and redesign.

Service-learning as a teaching strategy is applicable in different levels of the educational system – ranging from elementary to graduate schools, and its benefits were proven across disciplines (Warren, 2012; Yorio & Ye, 2012). A meta-analysis that included more than 11 800 students in over 60 studies (Celio et al., 2011) found that students benefited from participating in S-L programs (S-L improved their attitudes toward self and school/learning, civic engagement, social skills, and academic

performance). Clearly, there is evidence that S-L produces better experts in a given field, but are there benefits in the interdisciplinary areas (typical for PPDME)? Though there aren’t many studies that examine the impact of S-L on pre-service/beginning teachers, existing ones suggest that S-L improves their self-esteem and self-efficacy, professional attitudes and values, sensitivity to diversity, reduces their teacher biases and provides them with authority and affirmation (Anderson, 1998).

Having in mind everything mentioned above, what possible reasons/excuses do we have for not including S-L into our curriculum? And especially in PPDME where benefits could be twofold: a) to educate prospective teachers about the powerful method they can use in their future career and b) to allow prospective teachers to experience the S-L method and benefit from it academically, culturally and professionally. Also, since S-L enhances civic engagement and responsibility, our society and future generations would additionally benefit from long term effects of enhanced civic engagement and responsibility of prospective teachers – contributing with both personal activities (during S-L and after it) and role-modeling (encouraging their students to do the same).

A previous study (Modić Stanke & Putarek, 2016) showed that Croatian students from different scientific fields demonstrate a high initial interest in S-L, but in the mentioned study, students’ answers were limited to the potential *elective* course offered within their own higher education institution. Since prospective teachers in Croatia might not be as eager to engage in S-L within the *compulsory* courses that typically imply *interdisciplinary cooperation* – the purpose of this study was to determine the initial interest of students enrolling in pedagogical-psychological-didactic-

methodical education (PPDME) for taking one or more PPDME compulsory courses by the S-L principles. In addition, since S-L is a relatively new and unfamiliar method in Croatia, we were interested to find out whether prospective teachers were considering its application in their future career.

Additionally, we were interested to investigate the relationship between the level of S-L information and the reported interest in S-L. The previous study demonstrated that familiarity with S-L is positively correlated with interest in S-L (Modić Stanke & Putarek, 2016), but in that study, familiarity was measured as simple YES - NO categories. For that reason, in the present study, we decided to manipulate the informational level by means of short-term educational intervention about service-learning. In accordance with Cognitive evaluation theory (Deci & Ryan, 1985), we expected that highlighted informational aspect of this event would facilitate an internal perceived locus of causality and perceived competence, which would positively influence intrinsic motivation and eventually lead to increased interest in S-L.

## 2. METHOD

### 2.1. Participants

Final study sample consisted of 38 female ( $M = 23.61$ ;  $SD = 1.78$ ) and four male ( $M = 25.00$ ;  $SD = 2.16$ ), first (66.7%) and second (33.3%) year graduate students of diverse study programs within a single faculty. A larger number ( $N = 81$ ) of participants entered the study and answered the first questionnaire but, as the study included two measurements, some of the participants did not answer the questionnaire in the second part of the study. The response rate was about 64% in the second part; unfortunately, some students forgot their codes (which

they used in the first part to ensure the anonymity of the study) so their answers in the second part could not be matched with the answers in the first part. All the participants who entered the study were enrolled in the course Psychology of Education (one of the three compulsory courses necessary to attain pedagogical competencies required for a teaching position) and the final sample ( $N = 42$ ) represented 33% of the course population. At the same time, only 33% of the sample was also enrolled in the other two compulsory courses (Pedagogy and Didactics). All the participants gave their informed consent for anonymous participation in the study.

In the final sample, 74% of the participants stated they are attaining pedagogical competences because they want to pursue a career in teaching, while 26% of them stated they were doing so to have a back-up plan. All of the participants had the opportunity to get the information about their results but only one participant showed interest and asked for them. The majority of participants (76.2%) had some kind of part-time job during the study, half of them had previous experience with volunteering (53.4%) and only 3 participants were previously engaged in the Service-learning course.

### 2.2. Instruments

For the purpose of this study, two questionnaires were designed and their online versions were used. The first questionnaire started with an introductory section where general information about participants was collected (age, gender, study group, etc.). After that students answered questions about the enrollment in teacher training module within the Teacher Education Center (the main reason for enrolling into PPDME, whether they had already attended or were currently attending the three

compulsory course modules of PPDME, what grade did they get or expect to get upon completion of each of those courses, and estimation of their current interest in the contents of these courses (ranging from 1-not at all interested to 5-highly interested). The questionnaire included questions about the experience of the participants with the S-L in general (had they ever heard about it and from whom, did they have experience with it and what kind, how satisfied they were with it and how useful they think it was). Participants rated their interest in enrolling in the course with the S-L principles and stated the reasons for that interest, as well as how successful they think they would be in such a course. Additionally, students answered whether or not they had ever volunteered and, if they did, described and evaluated their satisfaction with that experience.

In the next step, participants had to imagine that in compulsory courses of the PPDME training module they could choose between two ways of performing the course: a) traditional way of working; and b) working according to the principles of S-L. Then they were asked some questions about the potential component of the S-L on those mandatory courses: would they be willing to consider working according to the principles of the S-L on those courses, what would their final decision depend upon (possibility of multiple responses), how successful they think they would be and to rate their interest for working by S-L principles on those three courses (ranging from 1-not at all interested to 5-highly interested).

Then participants filled out *Questionnaire of Civic Responsibility* (Furco et al., 1998), which consists of 24 items on which they express the level of their (dis)agreement with a particular item

on a scale from 1 (I strongly disagree) to 6 (I strongly agree). Here is one sample item: "I try to find the time or a way to make a positive difference in the community." In accordance with the recommendations of the previous research in which the questionnaire was translated into Croatian and validated (Modić Stanke and Putarek, 2016), one-factor structure of the questionnaire was used, and internal consistency of the questionnaire was satisfactory and very high ( $\alpha = 0.93$ ). Finally, the participants completed *The General Self-efficacy Scale* (Schwarzer and Jerusalem, 1995), which consisted of 10 items in which participants expressed the level of their (dis)agreement with a particular item on a scale from 1 (not at all accurate) to 4 (exactly accurate). Sample item: "I can solve most problems if I invest the necessary effort". Internal consistency of the scale was  $\alpha = 0.93$  in this study, i.e. it was high and satisfactory.

In the second part of the study, the questionnaire began with questions related to the enrollment in the PPDME module of the Teacher Education Center (how interested they were in the contents of the three compulsory courses). Following questions were related to the potential component of the S-L on those courses (whether and how attentively they listened to a lecture about service-learning within the Psychology of Education, would they be willing to use S-L in their future work as teachers, would they be willing to consider work by the principles of S-L on compulsory course modules within PPDME and why, how successful they think they would be in working according to the principles of the S-L and how much they would be interested in this form of work on each of the three mandatory courses within PPDME). Finally, participants had to give their opinion on the expected effect of S-L principles in three compulsory courses on their final grade in

the course, their motivation for the course and their knowledge of the content (would they expect them to be greater, equal or smaller compared to the achieved/expected grade, motivation, and knowledge after the traditional form of teaching).

### 2.3. Procedure

As stated earlier, the study consisted of two parts conducted at the beginning and at the end of the summer semester, participation was anonymous and the respondents used codes to sign the questionnaires. Design of the study was quasi-experimental with repeated measurements. Participants were assigned to one of two groups – the first one (control) that had no intervention between two measurements and the second one (experimental) that attended a 45-minute-long lecture on service-learning between two measurements. The aim of the lecture was to inform students more thoroughly about this teaching method and its implementation in the teaching process.

Participants were recruited at the beginning of the summer semester from the Psychology of Education course where they were asked to participate in the study. After recruitment, an e-mail was sent to all potential participants explaining the purpose of the study, giving a short description of the concept of service-learning and a link to the online questionnaire, asking them to fill out the questionnaire in the next week and stating that time needed for answering is estimated at 15 minutes. If they decided to participate, following the link they gave their consent for participation and were redirected to the online version of the questionnaire.

At the end of the summer semester, a lecture on S-L was provided for one group of participants. One day after the given lecture on S-L, both groups of students were

again asked for participation via an e-mail with the link to the online questionnaire. Again, it took approximately 15 minutes to complete the questionnaire and participants were asked to fill it out in the next 7 days. Only the responses of those participants who completed both questionnaires and had matching codes were considered for the analysis.

## 3. RESULTS

### 3.1. Prospective teachers' interest in service-learning

In order to check if students enrolling in PPDME courses have an initial interest in taking compulsory courses based on service-learning principles, we did an estimation of parameters which showed that, with the 5% risk, proportion of students considering this kind of enrollment on courses is between 0.85 and 1.00 ( $p = 0.93$ ;  $q = 0.03$ ;  $SDp = 0.0396$ ). If we consider only students whose main reason for enrolling into PPDME is to become teachers, proportion is between 0.79 and 1.00 with the same rate of risk ( $p = 0.90$ ;  $q = 0.10$ ;  $SDp = 0.0539$ ). All students who stated that they did not want to engage in S-L principles agree that the main reason for that decision is additional engagement that S-L requires within the study programme and beyond. Additionally, they stated that they lacked the time ( $N = 3$ ) and did not like cooperating with other students ( $N = 2$ ) either because they were too shy to work with unknown people or because they believed cooperation with a large number of people takes too much time and energy. Only one participant further stated that he had no interest whatsoever in such a form of work ( $N = 1$ ).

When asked to estimate their level of interest, participants gave the highest ratings

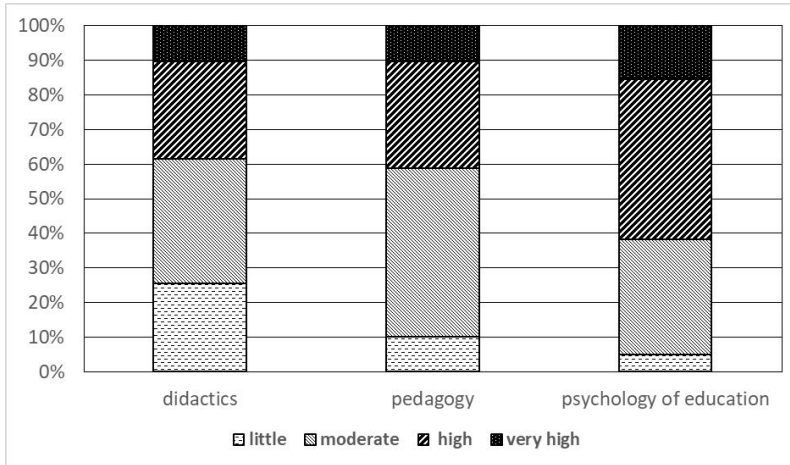


Figure 1. Percentage of students interest for work based on S-L principles in three compulsory courses of PPDME training (N=39 students that are interested in it)

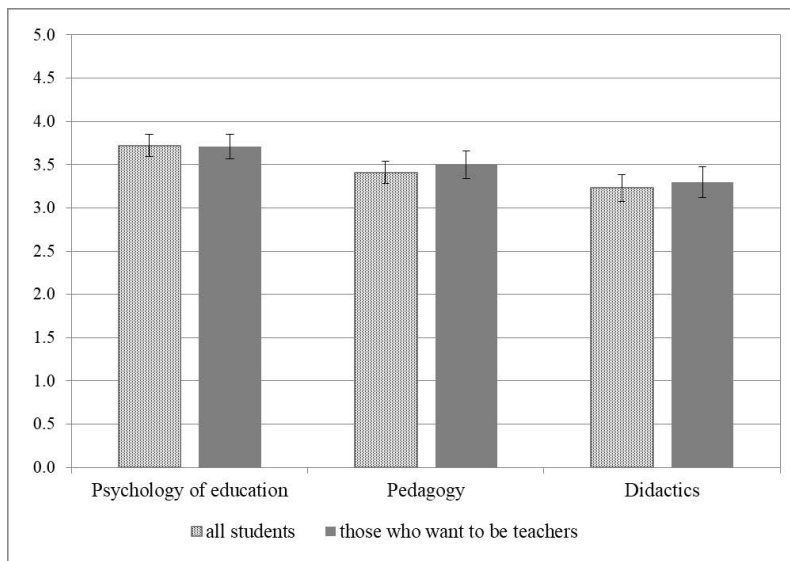


Figure 2. Estimations of interest for work based on S-L principles in three compulsory courses of PPDME training for all students interested in S-L (N = 39) and only for those students who want to pursue a career in teaching (N = 28)

for interest on service-learning principles in course Psychology of Education, and the lowest for the service-learning in course Didactics (Figure 1). Average difference in interest for S-L in three compulsory courses

(Figure 2) was tested with ANOVA for repeated measurements and were found to be statistically significant [ $F(2, 76) = 9.68; p < 0.01; \eta^2 = 0.20$ ]; prospective teachers' interest in S-L in Psychology of Education

was significantly higher than interest in the other two courses (between which no difference was found).

The same results were found for the sub sample of students who wanted to pursue a career in teaching [ $F(2, 54) = 5.95$ ;  $p < 0.01$ ;  $\eta^2 = 0.18$ ]; again, prospective teachers' interest for S-L in Psychology of Education was significantly higher than interest in the other two courses (between which no difference was found). The reasons why students are interested in work on S-L principles within PPDME courses are listed in Table 1, and multiple factors upon which a final decision on whether to

actually choose S-L principles would depend are listed in Table 2.

When asked if they would be willing to use the S-L as a method in their future teaching practice (Figure 3), more than half of the participants ( $p = 0.55$ ;  $q = 0.45$ ;  $SDp = 0.0768$ ) stated that their interest is high or very high. Parameter estimation shows that proportion of students interested in using S-L as a method in their future teaching practice was between 0.40 and 0.70 if we take into account only the sub sample of students who want to pursue a career in teaching.

*Table 1. Students reasons for interest in working based on S-L principles within three compulsory PPDME courses (N=39)*

reasons for the students' interest in S-L:	N (%)
practicing teamwork, communication, creativity and problem-solving	31 (79.5%)
acquiring specific knowledge and skills	30 (77.0%)
connecting theory and practice	29 (74.4%)
applying, better understanding, and deepening academic knowledge	29 (74.4%)
increasing self-confidence and self-competence	25 (64.1%)
helping people in need	20 (51.3%)
reevaluating personal professional interests	16 (41.0%)
increasing social engagement	15 (38.5%)
a better understanding of social conditions	14 (35.9%)
establishing potentially useful contacts	8 (20.5%)

*Table 2. Factors upon which a final decision on whether to actually choose S-L principles within three compulsory PPDME courses (N=39)*

factors impacting the final decision:	N (%)
Other academic responsibilities	28 (71.8%)
The usefulness of the course for the future career	28 (71.8%)
Professor	21 (53.7%)
Interest in the course subject	21 (53.9%)
Other extracurricular activities	11 (28.2%)
ECTS points	10 (25.6%)
(non)demandingness of the course	7 (17.9%)
Other students	2 (5.1%)



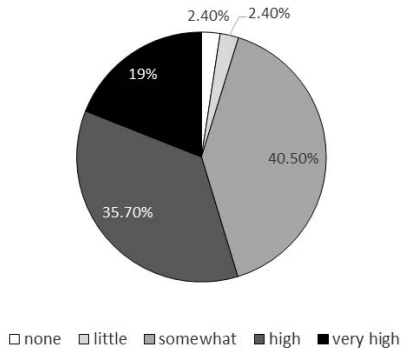


Figure 3. Estimation of interest in using S-L method as a teaching strategy in future teaching career (N = 42)

### 3.2. Effect of information about service-learning

Participants were divided into two groups. Group one (N = 21) consisted of the participants that were not present during the lecture on S-L or were present during the lecture on S-L but, by their own assessment, were not attentive during lecture (therefore did not attain information regarding S-L). Group two (N = 21) consisted of the participants that, by their own assessment, were moderately to completely attentive during

lecture regarding S-L. Two groups did not significantly differ in the initial interest in the content of three compulsory courses (first measurement), nor did they differ in the initial interest for working by the S-L principles in three compulsory courses (Table 3).

In addition, participants in both groups had the same levels of civic responsibility ( $t = 0.22$ ;  $df = 40$ ;  $p > 0.05$ ), general self-efficacy ( $t = 0.10$ ;  $df = 40$ ;  $p > 0.05$ ) and initial specific self-efficacy ( $t = 0.73$ ;  $df = 40$ ;  $p > 0.05$ ) so participants from both groups believed they would be equally successful in S-L task. The groups were congruent with respect to the number of participants who wanted to be teachers (in group 1  $n = 16$ ; in group 2  $n = 15$ ) and number of participants who previously worked on S-L principles (in group 1  $n = 1$ ; 2  $n = 2$ ), and were slightly different in terms of the number of participants with an experience in volunteering (in group 1  $n = 13$ , in group 2  $n = 9$ ).

Comparison of two groups after the intervention (second measurement) (Table 4) found no statistically significant differences in the final interest in the content of three compulsory courses, but showed that group who listened to the lecture on S-L became

Table 3. The initial interest of participants in group 1 that had no S-L lecture (N = 21) and group 2 that had S-L lecture (N = 21) in course content and work by S-L principles in three compulsory courses

		initial interest in course content		initial interest in work by S-L principles	
		M (SD)	t (df= 40)	M (SD)	t (df= 37)
Psychology of Education	group 1	4.19 (1.08)	t = 0.49	3.79 (0.71)	t = 0.54
	group 2	4.05 (0.81)		3.65 (0.88)	
Pedagogy	group 1	3.10 (1.26)	t = 1.46	3.37 (0.90)	t = 0.31
	group 2	3.57 (0.81)		3.45 (0.76)	
Didactics	group 1	2.67 (1.35)	t = 1.48	3.26 (1.05)	t = 0.20
	group 2	3.24 (1.14)		3.20 (0.89)	

Note. No statistically significant differences found between groups (all  $p > 0.05$ ).

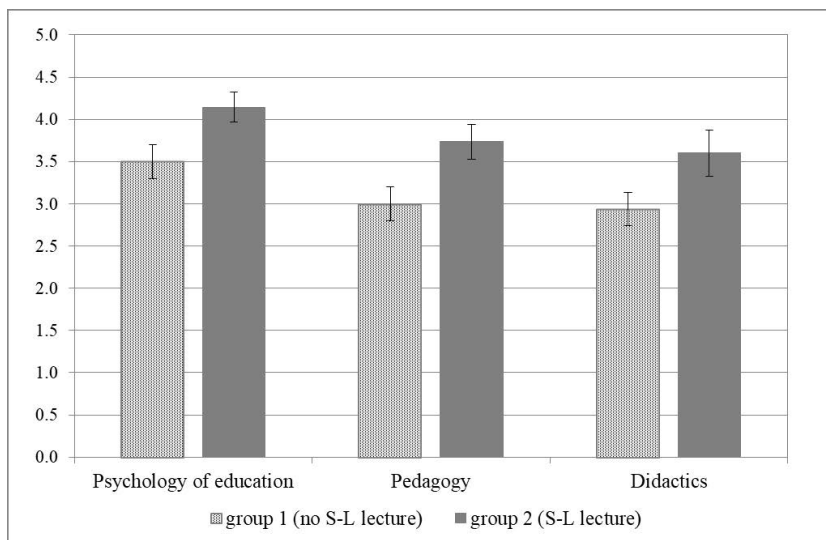
more interested in working by S-L principles in the course Psychology of Education, but not in courses Pedagogy or Didactics. However, when the same analysis is conducted on those students who strive to be teachers (Figure 4), participants from group 2 (who attended the lecture) demonstrated

significantly higher interest for engaging in S-L within course Psychology of Education ( $t = 2.37$ ;  $df = 26$ ;  $p < 0.05$ ) and Pedagogy ( $t = 2.53$ ;  $df = 29$ ;  $p < 0.05$ ) and almost significantly higher interest in S-L principles in Didactics ( $t = 2.00$ ;  $df = 29$ ;  $p = 0.054$ ).

*Table 4. The final interest of participants in group 1 that had no S-L lecture (N = 21) and group 2 that had S-L lecture (N = 21) in a) course content and b) work by S-L principles in three compulsory courses*

		final interest in course content		final interest in work by S-L principles	
		<i>M (SD)</i>	<i>t (df = 40)</i>	<i>M (SD)</i>	<i>t (df = 36)</i>
Psychology of Education	group 1	4.19 (1.08)	$t = 0.46$	3.53 (0.70)	$t = 2.02^*$ $d = 0.67$
	group 2	4.05 (0.92)		4.00 (0.75)	
Pedagogy	group 1	3.19 (1.21)	$t = 0.00$	3.14 (0.85)	$t = 1.67$
	group 2	3.19 (1.08)		3.57 (0.82)	
Didactics	group 1	2.90 (1.38)	$t = 1.48$	3.10 (0.83)	$t = 0.99$
	group 2	2.81 (1.17)		3.38 (1.02)	

$*p \leq 0.05$



*Figure 4. Estimations of final interest (second measurement) for the work by S-L principles in three compulsory courses between students who want to pursue a career in teaching (in group 1 n = 15, in group 2 n = 16)*

Table 5. Differences in the proportion of participants from group 1 (did not listen to S-L lecture) and group 2 (listened to S-L lecture) who assessed that working by the S-L principles would improve their grade, motivation, and knowledge in three compulsory courses

		higher grade		higher motivation		better knowledge	
		<i>p</i> ( <i>q</i> )	<i>t</i> ( <i>df</i> = 40)	<i>p</i> ( <i>q</i> )	<i>t</i> ( <i>df</i> = 40)	<i>p</i> ( <i>q</i> )	<i>t</i> ( <i>df</i> = 40)
Psychology of Education	group 1	0.10 (0.90)	<i>t</i> = 3.81*	0.33 (0.67)	<i>t</i> = 2.79*	0.67 (0.33)	<i>t</i> = 0.68
	group 2	0.67 (0.33)	<i>d</i> = 1.20	0.76 (0.24)	<i>d</i> = 0.88	0.76 (0.24)	
Pedagogy	group 1	0.29 (0.71)	<i>t</i> = 1.27	0.52 (0.48)	<i>t</i> = 1.27	0.48 (0.52)	<i>t</i> = 1.57
	group 2	0.48 (0.52)		0.71 (0.29)		0.71 (0.29)	
Didactics	group 1	0.14 (0.86)	<i>t</i> = 2.62*	0.33 (0.67)	<i>t</i> = 2.47*	0.48 (0.52)	<i>t</i> = 0.62
	group 2	0.52 (0.48)	<i>d</i> = 0.82	0.71 (0.29)	<i>d</i> = 0.78	0.57 (0.43)	

\**p* < 0.05; *d* = Cohen's *d* indicating effect size of statistically significant differences.

Most of the students think that work based on S-L principles in three compulsory courses of PPDME training would lead to equal grades (60-64% of participants), while the motivation for those courses would be higher (52-62% of participants), and knowledge about the content of the course better (52-71% of participants). Analysis of the effect of S-L lecture showed that lecture had an impact on the perception of grades and motivation; namely, a significantly higher proportion of students who listened to the lecture (group 2) estimated that the grade and the motivation in the courses Psychology of Education and Didactics would be higher. No such differences were found for grades or motivation in course Pedagogy (Table 5). Students in group 2 (who listened to the lecture) did not significantly differ from students in group 1 (without lecture) in estimations of "better knowledge" in all three compulsory courses.

#### 4. DISCUSSION

Results of the present study demonstrate that prospective teachers are generally interested in the possibility of engaging in S-L within compulsory courses of

PPDME and that their initial interest for doing coursework based on S-L principles is highest for the Psychology of Education. Additionally, about half of the participants also indicate high (or very high) interest in using S-L as a teaching method in their future career. Finally, the study demonstrates that additional level of S-L information enhances initial interest for engaging in S-L within Psychology of Education and also suggests possible generalizing effect to all compulsory courses in case of prospective teachers. Throughout the rest of this section, we discuss some limitations of the current work, comment our findings with regard to prior studies of students' interest in service-learning and annotate the practical contribution of the present work in the broader context.

Several features of the present work limit the conclusions we can draw regarding the prospective teachers' interest in S-L. First, we conducted a study on a convenient sample, which limits the generalization of the conclusion; it is possible that students who enroll in PPDME courses in other parts of Croatia feel differently about S-L due to the different social context in their surroundings. In addition, potentially limiting factor is notable participant drop out in the

second measurement; though we believe it had to do with increased student obligations at the end of the semester it also might be due to a number of reasons (e.g. lack of motivation) leading to more homogenous final sample than expected. Next, lecture on S-L was held within the course Psychology of Education after an entire semester of listening to its content – this made it easier for students to conceive what it would be like to engage in S-L within this course; if students were also attending Pedagogy and Didactics existing trend of differences would presumably become significant. Finally, the interest that was measured only indicates a potential for a compatible behavior, but is not a clear indicator of the decision-making process; in order to determine predictability, we first need to implement S-L in compulsory courses and offer it to our students.

Prospective teachers in the present study indicated considerable interest for the option of engaging in S-L within compulsory courses of PPDME, which is consistent with positive responses of students in different scientific fields to the idea of engaging in S-L within an elective course (Modić Stanke & Putarek, 2016). Main reasons behind this interest are also concurrent: more than 75% students in each study declare that their interest in S-L is related to acquiring specific knowledge and skills, and practicing teamwork, communication, creativity and problem-solving. It seems that Croatian students are quite aware of the discrepancy between students' outcomes and current labor market requirements and are therefore interested in new methods that could bridge the differences. Results of recent national study (Mrnjavac & Pivac, 2015) support this assumption; students in different scientific fields agree in their perception that study programs insufficiently contribute to the development of most competencies required on the current labor market.

About half of prospective teachers declare high (or very high) interest in using the S-L method in their own future teaching practice. Although these enthusiastic reactions are quite encouraging, we must take into account that participants' estimates were made without a solid background about S-L and thus without a proper awareness of the challenges the implementation of S-L might present. An American study (Anderson & Pickeral, 2000) identified lack of time, education, curricular space and institutional support as main challenges for implementing S-L in the education system. Similar challenges regarding implementation of S-L are found in Europe (McIlrath et al., 2016) where university representatives from 12 countries (including Croatia) identified lack of time, expertise, finance, recognition and coordination unit, together with different national and institutional priorities as main obstacles European S-L enthusiasts are currently dealing with.

The present study demonstrated that the more students know about S-L the more they are interested in it. At least this is true for a 45-minute-long interactive lecture that was used to explain the concept of S-L, clarify differences between a similar experience (volunteering and internship), present real-life examples of S-L and explain how it could be implemented in compulsory course Psychology of Education. Given the fact that the service-learning approach is an experience-based approach, we realize that a 45 min lecture on service-learning does not reflect the power of experience inherent in a real-world service-learning project. However, obtained positive effect of the short-term intervention on the students' interest in S-L suggests the possibility of even greater interest after the S-L experience.

In order for the manipulation to be effective, it was important to enhance information quality and diminish quantity

(Keller & Staelin, 1987) – which we tried to achieve using different methods of activating students in the education process. As mentioned previously in limitations section, it is possible that mere attendance of the compulsory course Psychology of Education together with the lecture on S-L within the same course contributed to the isolated effect of increased interest solely in Psychology of Education. Interestingly, information effect seems to be more general in prospective teacher who demonstrate a higher interest in all compulsory courses after the lecture on S-L in Psychology of Education. Results of the present study are in accordance with Cognitive evaluation theory (Deci & Ryan, 1985) - highlighted an informational aspect of this event facilitated an internal perceived locus of causality and perceived competence, which positively influenced intrinsic motivation and lead to increased interest in S-L. This can also be observed in participants' comparison of outcomes obtained in traditional vs. S-L teaching method; although participants from both groups generally believe that engagement in S-L would result in greater motivation for the course and greater knowledge of the course content, participants included in the lecture on S-L believed their grades and motivation would be greater while engaging in S-L within Psychology of Education and Didactics.

Present findings contribute to new and still insufficiently studied field of work

based on S-L principles in this region and we hope that they will encourage teachers and policy-makers to consider the systematic implementation of S-L in educational institutions, especially colleges and especially those who have PPDME trainings for prospective teachers. There is a considerable number of students who will be initially interested in service-learning even without a lot of information about it, but if we want to increase interest and motivation of students we should, as this study indicates, include a brief lecture on S-L within each course. Those lectures should emphasize ways of implementing S-L principles in a specific field or course. In addition, since results suggest that prospective teachers are interested in implementing S-L principles in their future teaching career, decision-makers and policy-makers of educational institutions are advised to face the challenges of implementing S-L principles within their respective fields in order to improve educational efficiency on all levels of the educational system. Investing in the education of future teachers by strengthening their psycho-pedagogical-didactic-methodical competences as well as their civil responsibilities will provide us with more qualified, motivated and responsible experts who will help new generations on the path of becoming motivated and socially involved experts who will then, after completing their own education, contribute to the society and the entire community.

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## **PREMA UČINKOVITIJEM OBRAZOVANJU: INTERES BUDUĆIH NASTAVNIKA ZA DRUŠTVENO KORISNO UČENJE**

### *Sažetak*

*Da bi osoba postala nastavnik(ica), mora posjedovati minimalne pedagoške kompetencije, koje se dobivaju završetkom pedagoško-psihološko-didaktičko-metodološkog (PPDM) obrazovanja. Pretpostavlja se da će ono biti praćeno profesionalnim napredovanjem u budućnosti, ali to se ne mora nužno i dogoditi. Jedan od načina za osiguranje boljeg početka karijere budućih nastavnika(ica) odnosi se na uvođenje društveno korisnog učenja (DKU) – pedagoškog pristupa, u kojem se kombiniraju akademsko učenje i volonterska praksa u zajednici. Cilj ovog rada je utvrditi inicijalni interes studenata za angažman u DKU u okviru PPDM obrazovanja, kao i istražiti vezu između razine informacija o DKU te iskazanog interesa za isto. U istraživanju su sudjelovala 42*

*studenata(ice) na diplomskoj razini, podijeljeni u dvije grupe: eksperimentalnoj (koja je pohađala predavanje o DKU) i kontrolnoj (u kojoj, između dvaju mjerenja, nije bilo intervencija). Rezultati ukazuju na veći interes za DKU u okviru kolegija psihologije obrazovanja. Budući nastavnici(e), koji su pohađali predavanje o DKU, iskazali su i veći interes za isto. Većina studenata smatra da bi angažman u DKU vodio do veće motivacije, kao i više razine znanja. Ovi bi rezultati trebali ohrabriti nastavnike i aktere obrazovne politike za uvođenje DKU u obrazovne ustanove, kako bi se unaprijedila učinkovitost obrazovanja na svim razinama obrazovnog sustava.*

**Ključne riječi:** *društveno korisno učenje, studentska motivacija, interes studenata, obrazovanje nastavnika*