

# Personality Traits and Students' Employment of Metacognitive Strategies in Foreign Language Learning and Achievement

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## Abstract

*This study deals with the relationship between personality traits and students' use of metacognitive strategies and their language achievements at tertiary level. It included 401 students. The International Personality Item Pool (IPIP) (Goldberg, 2001) and Oxford's (1990) Strategy Inventory for Language Learning (SILL) were used to measure student perceptions of their personality traits and employment of metacognitive strategies. Three multiple linear regressions were performed in order to examine the predictive role of personality dimensions in relation to different domains of metacognitive strategies. Two domains of metacognitive strategies, i.e. centred learning and evaluation, reach statistical significance, while planning and organization in the learning process as a criterion is not statistically significant. They explain between 4.1 % and 6.7 % of the criterion variance. Openness to experience is a significant predictor for two domains of metacognitive strategy, i.e. centred learning and evaluation. Pearson's correlations were calculated between personality dimensions and grades in English courses. The achieved grades are statistically significant and negatively correlated with conscientiousness and agreeableness, while they are positively correlated with openness to experience.*

**Key words:** domains of metacognitive strategies; grades; personality dimensions; university students.

## Introduction

Metacognition is the ability to understand, reflect upon and control our own learning. In basic terms, it is defined as "thinking about thinking" and it has a central role in

developing learning skills, since meta-cognitive awareness is directed towards cognitive skills development (Gojkov, 2004, 2009). The significance of metacognition in foreign language learning has been reported in several studies (Anderson, 2012; Flavell, 1976, 1979; Schraw, 1998; Wenden, 1998, 1999; Zhang & Goh, 2006). The employment of metacognitive strategies is essential for successful language learning because it enables students to determine their weaknesses that can be corrected, therefore capacitating them to better manage their cognitive skills. On the other side, personality traits are in significant relationship with language learning strategies. The Big Five personality traits, also known as the Big Five Model, suggest five broad dimensions used by some *psychologists* to describe the human *personality*. These five dimensions are specified as *openness to experience*, *conscientiousness*, *extraversion*, *agreeableness* and *neuroticism*. Each suggested factor consists of various correlated and more precise primary characteristics.

Chamorro-Premuzic and Furnham (2005) state the possibility that by maturing and advancing through the education system the importance of non-cognitive variables such as interest, motivation and personality traits increases. Therefore, there is a rising interest in studying the relationship between personality traits and non-cognitive individual differences in academic achievement. Personality traits are relevant to predicting success in higher education because of the decline of predictive forces of cognitive abilities at this level of education (Furnham et al., 2003). Over time, the criteria of academic achievement shift from the factors which favour cognitive abilities, such as critical thinking towards personality traits and motivational variables. For example, attending classes, doing homework, active participation in discussions, interaction with teachers and colleagues are non-cognitive factors that are expected to affect academic achievement (Chamorro-Premuzic & Furnham, 2005). Therefore, it is reasonable to regard individual differences in personality traits as significant variables in predicting academic achievement (Chamorro-Premuzic & Furnham, 2003; Furnham et al. 2003; Petrides et al., 2005), which is highly dependable on metacognition.

## The Big Five Model

Psychologists agree that personality traits are stable and constant characteristics of individuals and their consistent behaviour in different situations (Dörnyei, 2005; Kayaoglu, 2013; Komarraju & Karau, 2005; Komarraju et al., 2009; Nofle & Robins, 2007; Pervin et al., 2005; Pervin & John, 2001). It means that unique and essentially unchanging pattern of traits, temperaments or dispositions distinguish individuals. Previous studies found that the Big Five personality traits, i.e. *extraversion*, *openness to experience*, *neuroticism*, *conscientiousness* and *agreeableness* are related to a variety of human behaviour, including language achievement and motivation (Komarraju et al., 2009), job performance and language achievements (McCrae & Costa, 2003), academic achievement (Chamorro-Premuzic & Furnham, 2003; Komarraju & Karau, 2005; Komarraju et al., 2009; Martin et al., 2006), oral performance and willingness to communicate (MacIntyre & Charos, 1996; MacIntyre et al., 1998; Öz, 2014; Pavičić-

Takač & Požega, 2011), language learning anxiety (Dewaele & Al-Saraj, 2015; Payne et al., 2007), academic achievement and learning style (Komarraju et al., 2011) and attitudes toward foreign language learning (Pourfeiz, 2015).

The correlation between language learning strategies and personality traits was investigated by Kang (2012). The results reported that students' personality traits significantly correlated with six strategy groups in the SILL (Oxford, 1999). *Openness to experience*, *conscientiousness* and *extraversion* showed strong positive correlation with most learning strategies; thus, *openness to experience* and *conscientiousness* were found the strongest significant predictors of the use of learning strategies. Nevertheless, *neuroticism* was negatively correlated with metacognitive strategies. Comparable findings were reported in a study by Ayhan and Türkyilmaz (2015) which investigated the correlation between personality traits and the use of metacognitive strategies. Their findings indicated that *openness to experience*, *extraversion*, *conscientiousness* and *agreeableness*, but not *neuroticism*, significantly correlated with the use of metacognitive strategies. Furthermore, Dewaele (2007) reported no correlation between foreign-language attitudes and *neuroticism* and foreign language grades, although there was a tendency toward positive correlation in English as a third language (Dewaele, 2002).

As with metacognition, there are apparent theoretical relationships between a strategic approach to learning and *conscientiousness*. Actually, an empirical research (Diseth, 2003) reported a strong correlation between *conscientiousness* and strategic/achieving approach. Some findings also suggest that learning achievement is associated with *conscientiousness* (Chamorro-Premuzic & Furnham, 2003). They reported a significant effect of *conscientiousness* on language achievement. Namely, *conscientiousness* was acknowledged to perform the function anticipated of a strategic approach to language learning.

*Conscientiousness* is reflected in the ability of self-control and disciplined pursuit of the defined goals. A person with a high level of *conscientiousness* is organized, has clear and high goals that he/she strives for in spite of disturbances, has confidence in oneself and one's abilities. This attitude and behaviour are in positive correlation to academic and language learning success. *Conscientiousness* is the most important predictor of school success from all the dimensions of personality traits. High *conscientiousness* is associated with the qualities necessary for successful learning and academic achievement such as organization, reliability, efficiency, the pursuit of success, etc. (Matthews et al., 2003). Some authors assume that a high degree of *conscientiousness* can compensate for lower intellectual abilities (Chamorro-Premuzic & Furnham, 2003). In later stages of education, the personality traits associated with conscientiousness and persistence take on a more important role than intelligence, which is a stronger predictor of school achievement at lower levels of education.

*Openness to experience* has two results. It correlates positively with academic success in final grades (Farsides & Woodfield, 2003) and improves the use of learning strategies (Mumford & Gustafson, 1988), but some authors find that creative and imaginative

nature of individuals with pronounced *openness to experience* can be a disadvantage in situations of evaluating the reproduction of actual knowledge defined in the curriculum. *Openness to experience* is an advantage in school situations when dealing with creative problem solving (De Fruyt & Mervielde, 1996).

Successful students are characterized by the combination of *conscientiousness* and *openness to experience*, i.e. a high level of interest in new ideas and the degree of ability to direct interests in a controlled and constructive manner. They are characterized by real curiosity, diligence, organization, high level of aspiration and creativity.

Research has shown that extroverts are better at lower and introverts at higher levels of education. Extroverted students are sensitive to awards and introverted to punishment. Rowell and Renner (1975) showed that extroverts prefer unstructured learning and found that the best students are usually introverted with a high level of intelligence. Success in the learning of extrovert and introvert students is primarily the result of the way in which their learning environment is organized, and less of their characteristics.

Relations of *agreeableness* and school achievement are generally not obtained in research (Shiner et al., 2003). Nevertheless, in a study conducted by Laidra et al. (2007) on 3618 students, a positive relationship between *openness to experience*, *agreeableness*, *conscientiousness* and school achievement was obtained.

A large number of studies indicate the importance of *emotional stability* for school achievement (Entwisle & Cunningham, 1968). A light emotional excitement influences the outcome of exams positively and encourages the engagement of various intellectual functions, while strong emotionality blocks more complex mental functions and creates insecurity and tension. McKenzie and Tindell (1993) point to the importance of mediation processes: self-control and focus on motivation can compensate for the negative impact of high *neuroticism* on school achievement.

Previous research found significant correlations between four personality traits (*openness to experience*, *agreeableness*, *conscientiousness* and *extroversion*) and students' foreign language proficiency scores on *International English Language System (IELTS)* as English proficiency test used by tertiary institutions. The study by Erfani and Mardan (2017) showed that the Big Five personality traits had positive and strong predictive power for both IELTS scores and academic achievement. However, *neuroticism* was negatively correlated with IELTS scores and academic success and had no predictive power. Findings of the research pointed out that optimistic, sociable and cheerful students could benefit from their traits when taking the proficiency tests. In addition, the study found that the same traits are predictors of both higher scores on IELTS and academic achievement. Once the students are ready to agree with others, are more open to experience, able to act extrovertly and capable to learn more conscientiously, their achievement in language learning is higher. This conclusion is in line with Gass and Selinker (2008) maintaining that some students are better in learning foreign language than others due to different reasons, and most of them have no connection with psycholinguistic factors or language, but are connected with individual characteristics.

However, there are opposite results, such as the research of Nofle and Robins (2007), who found a weak correlation between *openness to experience* and academic performance, and Zabihi (2011), who reported a negative correlation between *extroversion* and academic achievement.

## Metacognitive strategies

Metacognitive strategies (Oxford, 1990), such as identifying one's own learning style preferences and needs, planning foreign language tasks, gathering and organizing materials, arranging study space and schedule, monitoring mistakes, evaluating task success, and evaluating the success of any type of learning strategy are directly employed in managing the overall learning process. According to Oxford (1990), metacognitive strategies include three main domains: *centred learning*, *planning and organization in the learning process* and *evaluation*. *Centred learning* refers to identifying one's own learning style preferences and needs as well as the awareness of language learning procedures and task performance. *Planning and organization in the learning process* refers to gathering and organizing materials, arranging a study space and schedule as well as setting goals and choosing appropriate strategies to achieve them. *Evaluation* refers to monitoring mistakes and evaluating task success as well as the estimation of learning outcomes, objectives and strategies employed in learning. Numerous researchers reported that successful and conscientious language learners use more learning strategies in comparison to those who are not (Anderson, 2002, 2012; Hart & Memnun, 2015; Hashempour et al., 2015; Iwai, 2016; Memnun & Akkaya, 2009; Mokhtari & Reichard, 2004; Negretti & Kuteeva, 2011; Öz, 2015; Schraw, 1998; Schraw & Dennison, 1994; Wenden, 1998, 1999).

Sun (2013) reported a significant correlation between English proficiency and the frequency of using metacognitive strategies. Studies of English foreign language learners in South Africa (Dreyer & Oxford, 1996) and in Turkey (Oxford et al., 1998) found that metacognitive strategies are often compelling predictors of foreign language proficiency.

However, there is little and insufficient empirical research considering the correlation between personality traits and metacognitive strategies in foreign language teaching at university level (Asmali, 2014; Rogulj, 2016). It is found that students with high levels of *openness to experience* are prone to more frequent application of cognitive and metacognitive strategies (Rogulj, 2016), and students who had a high level of *agreeableness* showed a higher tendency to use metacognitive and affective social strategies (Asmali, 2014). In addition, some results are contradictory, so the present study contributes to investigating the effects of the Big Five personality traits on students' employment of metacognitive strategies in language learning and achievement. It is supposed that setting up connections between personality traits as individual difference variables and the employment of metacognitive strategies could help teachers to integrate metacognition training programs into the curricula and provide perfect setting for the interplay of metacognitive strategies and personality traits in order to facilitate more efficient language learning and achievement.

There are several reasons that justify researching personality traits as predictors of language learning success (O'Connor & Paunonen, 2007). First, the literature states that a person's behaviour, which forms an integral part of personality traits, affects the creation of certain habits which in turn influence language learning success. Another argument refers to the fact that cognitive ability reflects what individuals are able to achieve, while personality traits reflect what individuals actually do achieve in certain circumstances (Ackerman & Heggstad, 1997; Furnham & Chamorro-Premuzic, 2004). Regardless of individuals' level of ability, the amount of ability that they will employ depends on their personality traits as well as on typical intellectual engagement they are willing to invest in learning (Ackerman & Heggstad, 1997).

Due to the aforementioned, the basis for exploring the relationship between the Big Five personality traits, language learning achievement and metacognitive strategies lies in the fact that it is somehow different in comparison with learning other subjects. Good language learners are optimistic, sociable and cheerful students ready to agree with others, more open to experience, able to act extrovertly and capable to learn more conscientiously. In addition, they have a high level of interest in new ideas and the degree of ability to direct their interests in a controlled, constructive and creative manner. Moreover, metacognitive strategies, i.e. planning for second language tasks, identifying one's own language learning style and learning needs, gathering and organizing materials, monitoring mistakes, arranging a study space and a schedule, evaluating the success of any type of learning strategy, and evaluating task success, are employed in managing the language learning process. Purpura (1999) reported that metacognitive strategies had "a significant positive and direct effect on cognitive strategy use, providing clear evidence that metacognitive strategy use has an executive function over cognitive strategy use in task completion" (p. 61).

As far as the authors are aware, there is no previous empirical research in Serbia that would clarify the extent and manner in which personality influences the employment of metacognitive strategies in foreign language achievement. In addition, results obtained in one specific context of language learning may not be relevant to other. Therefore, studies should be carried out to examine using language learning strategies in different contexts as well. Hence, this study explored the impact of personality traits on university students' employment of metacognitive strategies in foreign language learning and achievement in Serbia.

## **Purpose of the study**

The research problem considers the relation between personality traits and three domains of metacognitive strategies in foreign language learning, since they directly and indirectly contribute to language learning outcomes. As contemporary trends in research emphasize the situational nature of individual factors and point to a new dynamic conceptualization in which individual factors enter into a certain kind of interaction with situational parameters (Dörnyei, 2005), the aim of the research is

to investigate the relations between personality traits and aspects of metacognitive strategies in language learning.

The following questions are formulated for a clearer view and operationalization of the aforementioned.

- 1 What are the assessed levels of students' personality traits and the use of metacognitive strategies?
- 2 How well do personality traits predict the employment of metacognitive strategies in language learning?
- 3 How well do personality traits and the use of metacognitive strategies predict students' language learning achievements?

The following hypotheses are stated:

H1: Personality traits are in correlation with all three domains of metacognitive strategies (*centred learning, planning and organization in the learning process and evaluation*) in language learning.

*Conscientiousness* includes features like organization, competence, thoroughness, self-discipline and reliability. There are apparent theoretical relationships between metacognition as a strategic approach to learning and *conscientiousness*. Some studies (Diseth, 2003) reported a strong correlation between *conscientiousness* and a strategic approach. *Openness to experience, extraversion and agreeableness* showed statistically significant correlation with metacognitive strategies (Ayhan & Türkyılmaz, 2015) in language learning. Kang (2012) found that *neuroticism* showed a negative relationship with metacognitive strategies in language learning.

H2: Personality traits are predictors of employment of metacognitive strategies in language learning.

Kang (2012) found that *openness to experience* and *conscientiousness* were the most significant predictors of using metacognitive strategies in language learning. In addition, students with high levels of *openness to experience* are prone to more frequent application of cognitive and metacognitive strategies (Rogulj, 2016). Students with a high level of *agreeableness* showed a higher tendency to use metacognitive strategies (Asmali, 2014).

H3: Personality traits and the use of metacognitive strategies are in significant correlation with students' language learning achievements.

Some findings also suggest that language learning achievement is associated with certain personality traits (Chamorro-Premuzic & Furnham, 2003; Dewaele, 2007; Rogulj, 2016) as well as the employment of metacognitive strategies.

## Method

### Sample

The sample was composed of 401 university students (56.9 % females) learning a foreign language: 295 participants were attending English language courses and 106 students German language courses. The distribution of participants by age and

language learning study program (English and German) was relatively equal since they were all at the first or second year of their studies. The mean age of the participants was 19.77 years (SD = 2.02), and they were recruited from the Preschool Teacher Training College Mihailo Palov in Vršac (106) and the Faculty of Technical Sciences of Novi Sad (295). All students were informed about the study and freely accepted to participate without any compensation. They anonymously filled in the questionnaires via paper-and-pencil method at the beginning of their foreign language course in the winter semester of 2017/2018 academic year. The whole procedure lasted 20 minutes.

### **Instruments**

Goldberg's International Personality Item Pool (IPIP; Goldberg, 2001): the Big Five personality traits were assessed using Goldberg's items from the public domain, translated into the Serbian language. Each trait was assessed via 10 items on a 5-point Likert scale (1 – I completely disagree, 5 – I completely agree). The reliability of each scale was as follows: *Extraversion*  $\alpha = .75$ , *Conscientiousness*  $\alpha = .73$ , *Agreeableness*  $\alpha = .77$ , *Emotional Stability*  $\alpha = .86$ , and *Openness to experience*  $\alpha = .71$ .

Oxford's (1990) Strategy Inventory for Language Learning (SILL): there are originally two versions of the SILL - for English speakers learning a new language (version 5.1) and for speakers of other languages learning English (version 7.0). The category of metacognitive strategies (9 items;  $\alpha = .86$ ) of the SILL 7.0 version was employed in the current study. It was translated into Serbian to obtain more precise results. Its reliability was calculated for the present study sample. Metacognitive strategy scale was divided into three subscales as they are utilized for managing the learning process overall. They were applied in the current research as the following:

1 *Centred learning* ( $\alpha = .823$ ) - identifying one's own learning style preferences and needs, planning for a L2 task.

SILL 30 - I try to find as many ways I can to use my English/German.

SILL 32 - I pay attention when someone is speaking English/German.

SILL 33 - I try to find ways to be a better learner of English/German.

2 *Planning and organization in the learning process* ( $\alpha = .829$ ) - gathering and organizing materials, arranging a study space and a schedule.

SILL 34 - I plan my schedule so I have enough time to study English/German.

SILL 35 - I look for people I can talk to in English/German.

SILL 36 - I look for opportunities to read in English/German as much as possible.

3 *Evaluation* ( $\alpha = .811$ ) - monitoring mistakes, evaluating task success and evaluating the success of any type of learning strategy.

SILL 31 - I notice my English/German mistakes and use the information to help me do better.

SILL 37 - I have clear goals for improving my English/German skills.

SILL 38 - I think about my progress in learning English.

Values of Cronbach alpha for these scales range from  $\alpha = .811$  to  $\alpha = .829$ , which indicates acceptable reliability.



## Results

### Descriptive statistics

The results of descriptive statistics (Table 1) indicate no univariate deviations from normal distribution, as values of skewness and kurtosis are in the suggested range of  $\pm 1.5$  (Tabachnick & Fidell, 2013). Besides, *emotional stability* and *neuroticism* are opposite ends of the same dimension and they are investigated accordingly.

Table 1

Descriptive statistics for the main variables

Scale	Min	Max	Mean	Sd	Skewness	Kurtosis
Centred learning	3	15	10.86	2.92	-.46	-.27
Planning and organization in the learning process	3	15	8.18	3.14	.03	-.88
Evaluation	3	15	10.26	2.93	-.34	-.47
Extraversion	13	50	31.88	7.07	-.05	-.37
Conscientiousness	17	50	37.16	6.73	-.26	-.32
Agreeableness	19	50	38.83	6.08	-.18	-.26
Emotional stability	10	50	31.49	8.24	-.05	-.39
Openness to experience	23	49	36.61	5.20	.01	-.45

Note. Min – Minimum. Max – Maximum. SD – Standard Deviation.

In addition, descriptive statistics (Table 2) was applied to determine which aspect of metacognitive strategies is the most common in the sample. More than 80 % of respondents reported very high or high scores on *centred learning*, about 48 % of the students declared extensive or frequent use of *planning and organization in the learning process* as a strategy, and about 70 % stated they extensively or frequently use *evaluation* as an aspect of metacognitive learning strategies. Such findings indicate these three aspects of metacognitive strategies are used very frequently.

Table 2

Descriptive statistics for three aspects of metacognitive strategies

Metacognitive subscales	Centred learning		Planning and organization in the learning process		Evaluation	
	F	%	F	%	F	%
Very High (extensively)	168	42.0	60	15.0	144	35.9
High (frequently)	154	38.5	134	33.4	148	36.9
Low (occasionally)	57	14.2	114	28.4	80	20.0
Very Low (seldom)	21	5.3	93	23.2	29	7.2
Never	1		0			
Total	401	100	401	100	401	100

### Correlations between personality dimensions and achieved grades

According to Table 3, there is a significant correlation between success in learning and the use of two domains of metacognitive strategies: *centred learning* and *evaluation*.

All three domains of metacognitive strategies have a significant intercorrelation, which means they are mutually stimulated and promoted.

When regarding personality traits, the following correlations were found: between *extraversion* and *agreeableness*, *emotional stability* and *openness to experience*; between *conscientiousness* and *agreeableness*, *emotional stability* and *openness to experience*; *agreeableness* and *extraversion*, *conscientiousness* and *openness to experience*; *emotional stability* and *extraversion*, *conscientiousness* and *openness to experience*, while *openness to experience* is significantly correlated with all personality traits and domains of metacognitive strategies, except with *planning and organization in the learning process*.

There is also a significant negative correlation between language learning achievement and *conscientiousness* and *agreeableness*, while it is positively correlated with *openness to experience*. Many of the correlations which reach statistical significance are in the  $\pm .2$  range and cannot be considered strong correlations. The only correlation higher than .2 is found between *openness to experience* and *centred learning*.

Table 3

Pearson correlation coefficients between the variables

	1	2	3	4	5	6	7	8	9
1. Grades	1	.31**	.19**	.24**	-.04	-.16*	-.11*	-.05	.078
2. Centred learning		1	.52**	.67**	-.02	.08	.11*	.02	.25**
3. Planning and organization in the learning process			1	.58**	-.00	.08	.02	-.00	.09
4. Evaluation				1	-.04	.12*	.15**	.04	.18**
5. Extraversion					1	.04	.16**	.25**	.22**
6. Conscientiousness						1	.32**	.27**	.21**
7. Agreeableness							1	-.00	.27**
8. Emotional stability								1	.15**
9. Openness to experience									1

Note: \* -  $p < .05$ ; \*\*  $p < .01$ .

### Correlations between the Big Five personality traits and three domains of metacognition

In order to examine the predictive role of personality dimensions in relation to different domains of metacognitive strategy, three multiple linear regressions were performed. The summary of regression models are presented in Table 4. Two of the three models reach statistical significance, those that predict *centred learning* and *evaluation*, while the model with *planning and organization in the learning process* as criterion is not statistically significant. Significant models explain between 4.1 % and 6.7 % of the criterion variance.

The analysis revealed that nearly 7 % of the *centred learning* strategy can be explained by personality traits.

Table 4  
Summary of regression models

Criterion	R <sup>2</sup>	F	df1	df2	p
Centred learning	.067	5.24	5	362	.000
Planning and organization in the learning process	.016	1.17	5	363	.322
Evaluation	.041	4.14	5	363	.001

Values of beta coefficients for regression models that are statistically significant are presented in Table 5. *Openness to experience* is the only significant predictor for both domains of metacognitive strategy: *centred learning*, which means identifying one's own needs and learning style preferences and planning for second language tasks; and *evaluation*, which entails monitoring mistakes, evaluating task success and the success of any type of learning strategy. These correlations are positive, i.e. higher level of a trait is followed by more frequent use of metacognitive learning strategies.

Table 5  
Relative predictive power of personality dimensions for significant regression models of metacognitive strategy domains

Predictor	$\beta$	
	Centred learning	Evaluation
Extraversion	-.081	-.100
Conscientiousness	.007	.047
Agreeableness	.048	.104
Emotional stability	.003	.022
Openness to experience	.247**	.160**

Note: \*\* -  $p < .01$

The obtained results show that:

H1: Personality traits are in correlation with all three domains of the metacognitive strategy (*centred learning*, *planning and organization in the learning process* and *evaluation*) in language learning. It is partially confirmed.

*Conscientiousness* is in low correlation with two domains of metacognitive strategies, i.e. *centred learning* (.08) and *planning and organization in the learning process* (.08), while it is in statistically significant correlation with *evaluation* (.12). *Openness to experience* is in statistically significant correlation with two domains of metacognitive strategies, namely *centred learning* (.25) and *evaluation* (.18), while it is in low correlation with *planning and organization in the learning process* (.09). *Extraversion* is in low and negative correlation with all three domains of metacognitive strategies, i.e. *centred learning* (-.02), *planning and organization in the learning process* (-.00) and *evaluation* (-.04). *Agreeableness* is in statistically significant correlation with two domains of metacognitive strategies, i.e. *centred learning* (.11) and *evaluation* (.15), while in low correlation with *planning and organization in the learning process* (.02). *Emotional stability* is in low correlation

with all three domains of metacognitive strategies: *centred learning* (.02), *evaluation* (-.00) and *planning and organization in the learning process* (.04).

H2: Personality traits are predictors of using metacognitive strategies in language learning. This hypothesis is partially confirmed.

*Openness to experience* is the only significant predictor for two domains of metacognitive strategy: *centred learning*, i.e. identifying one's own learning style preferences and needs and planning for second language tasks; and *evaluation*, i.e. monitoring mistakes, evaluating task success and evaluating the success of any type of learning strategy. These relationships are positively oriented, meaning that higher level of a trait implies more frequent use of metacognitive learning strategies.

H3: Personality traits and the use of metacognitive strategies are in significant correlation with students' language learning achievements. This hypothesis is partially confirmed.

There is a significant negative correlation between language learning achievement and *conscientiousness* (-.16) and *agreeableness* (-.11), while it is positively correlated with *openness to experience* (.078). These correlations are relatively weak.

There is a significant correlation between language learning achievement and the use of two domains of metacognitive strategies, i.e. *centred learning*, which entails identifying one's own needs and preference in learning a foreign language and access to language tasks (.25); and *evaluation*, which encompasses monitoring errors, evaluating completed tasks and achieving success through learning strategies (.18).

## Discussion

Regardless of domain-specific knowledge and cognitive constraints, metacognition plays a vital role in developing language learning skills. When regarding the use of three different domains of metacognitive strategies, more than 80 % of the respondents reported very high or high scores on *centred learning*, about 48 % of the respondents declared they extensively or frequently use *planning and organization in the learning process* as a strategy, and about 70 % of the respondents extensively or frequently use *evaluation* as a domain of the metacognitive learning strategy. Such findings indicate that respondents use all three domains of metacognitive strategies very frequently. The results are in line with similar studies which suggest that high levels of metacognitive awareness are necessary for successful language learning (Babakhani, 2014; Öz, 2007, 2015; Sun, 2013; Zhang et al., 2013).

In addition, results of the present study revealed a significant correlation between one personality trait as an individual variable and the metacognitive strategy, providing support to research (Dörnyei, 2005) carried out to explore the impact of personality traits on various aspects of foreign language learning. The results of the present study show that *openness to experience* is a predictor of two domains of metacognitive strategies, i.e. *centred learning* and *evaluation*. However, *conscientiousness*, *extraversion* and *emotional stability* lack significance in predicting any domain of metacognitive strategies.

This finding is in line with the results of study by Oz (2016) who reported that *openness to experience* was the strongest predictor of metacognitive strategies. The results implied that more social, much warmer, imaginative, creative and open individuals are more likely to be aware of their metacognitive strategy use while taking part in a language learning activity. Students who excel in *openness to experience* control their learning and coordinate the learning procedure by different means, such as centring, arranging, planning and evaluating. They also take advantage of their mental processing of a language in different ways, such as accumulating and retrieving information, using and grouping imagery, thinking logically, guessing, or using synonyms. This result is in accordance with studies in different cultures (Kang, 2012; Fazeli, 2012). However, there are some findings that run counter to this study (Busato et al., 2000), claiming that *openness to experience* is unlikely to influence academic behaviour.

In addition, the present study reported that *agreeableness* is in significant correlation with two domains of metacognitive strategies, i.e. *centred learning* and *evaluation*, and it is in line with the study of Ayhan and Türkyilmaz (2015). Successful cooperation with peers and other people as well as using social contexts meaningfully seem to be activators of foreign language use, therefore making *agreeableness* a prerequisite for other requirements. Consequently, more agreeable students seem to employ more metacognitive strategies.

The present study reported that *conscientiousness* is in significant correlation with one domain of metacognitive strategies, i.e. *evaluation*. This finding is in line with the results of Ayhan and Türkyilmaz's (2015) research which found a strict relationship between *conscientiousness* and metacognitive strategy use among university students. Students who are self-disciplined, well-organized in their study and goal-oriented in their lives tend to use language learning strategies more than those who are less reliable and disorganized. On the whole, conscientious students are regarded as efficient time users (Bidjerano & Dai, 2007), they practice regularly (Courneya & Hellsten, 1998), define high standards in learning (Little et al., 1992) and favour analytic and systematic learning.

The present findings also reported no correlation between *emotional stability* and metacognitive strategies, which is in line with previous research (Ayhan & Türkyilmaz, 2015), where no statistically significant relationship was found between metacognitive strategy use and neuroticism. Therefore, we confirmed neither positive nor negative correlation between *neuroticism* and metacognitive strategy use. However, some researchers have found negative impact of neuroticism on educational outcomes and language acquisition (Bandura, 1986; Costa & McCrae, 1992; Kang, 2012; Nahl, 2001; Komaraju et al., 2009, 2011; Pourfeiz, 2015), which implies that lack of emotional stability influences learning behaviour negatively. Namely, lack of *emotional stability* may have negative impact on students' use of metacognitive strategies. The results of Kang's research (2012) reported a significant positive correlation between *conscientiousness*, *openness to experience* and *extraversion* and language learning strategies, while *neuroticism* negatively correlated with metacognitive strategies.

When regarding language learning achievement, the present study reported statistically significant negative correlation between language learning achievement and *conscientiousness* and *agreeableness*, while it is positively correlated with *openness to experience*. However, it can be noted that all these connections are weak. Some other findings (Chamorro-Premuzic & Furnham, 2003; Komaraju et al., 2011; Rogulj, 2016) reported a significant positive relationship between *conscientiousness* and *agreeableness* and academic achievement, which is not in line with our findings.

## Conclusion and teaching implications

Based on the obtained findings, it can be concluded that personality traits have an impact on the employment of metacognitive strategies and language learning achievement. When regarding the domains of metacognitive strategies, the findings suggest that *centred learning* and *evaluation* are employed more frequently in comparison with *planning and organization in the learning process*. Since the examinees were successful university students, this finding implies that a person who has once achieved a high level of self-regulation in learning does not have to be fully aware of the underlying processes (Gojkov, 2009), as well as that all the elements of the theoretical model of metacognition are not necessarily in the domain of conscious experience at all stages of activity (Gojkov, 2004). Finally, personality traits make an impact on the employment of metacognitive strategies and language learning achievement.

The findings of this research entail a series of practical teaching implications which relate to raising teachers' awareness about learning as a dynamic process based on the interaction between personality traits and learning strategies as individual variables. Teachers' awareness should result in a more flexible approach to teaching, allowing for a variety of activities and tasks and encouraging students to learn independently. Bearing all this in mind, teachers should encourage the development of abilities in learners that will enable them to become better in language learning. It should be noted that it is vital to capacitate students to distinguish their personality traits as well as their choice of language learning strategies. This will help them recognize their shortcomings and advantages, and certainly in employing appropriate strategies in accordance with their personalities. Consequently, the teacher's role in personality-oriented and strategic education is very important. Language teachers should introduce various strategies and teach their implementation, in such a way enabling students to advance and make use of these strategies in their learning process. In addition, language learning curriculum should provide for different use and development of metacognitive strategies and raise awareness of students' different personalities. Likewise, language teachers should adopt effective metacognitive strategies and skills in their teaching practice.

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# Osobine ličnosti studenata i njihovo korištenje metakognitivnim strategijama u učenju stranoga jezika i povezani uspjeh

## Sažetak

*U ovom istraživanju ispituje se odnos između osobina ličnosti studenata i njihove upotrebe metakognitivnih strategija te njihovo postignuće u učenju jezika na razini višega obrazovanja. U istraživanju je sudjelovao 401 student, a za mjerenje njihovih percepcija vlastitih osobina ličnosti i upotrebe metakognitivnih strategija korišteni su Međunarodni fond čestica ličnosti (IPIP)<sup>1</sup> (Goldberg, 2001) i Oxfordin (1990) Inventar strategija za učenje jezika (ISUJ). Kako bi se ispitala prediktivna uloga osobina ličnosti u odnosu na različite domene metakognitivnih strategija, provedene su tri multiple linearne regresije. Dvije domene metakognitivnih strategija, tj. usredotočeno učenje i vrednovanje, dosegle su razinu statističke značajnosti, dok planiranje i organizacija u procesu učenja kao kriterij nije statistički značajno. Ove dvije domene objašnjavaju 4,1 % i 6,7 % kriterijske varijance. Otvorenost za iskustvo značajan je prediktor za dvije domene metakognitivne strategije, tj. usredotočeno učenje i evaluaciju. Izračunate su Pearsonove korelacije između dimenzija ličnosti i ocjena iz engleskih kolegija. Postignuti uspjeh je statistički značajno i negativno povezan sa svjesnosti i ugodnosti, dok je u pozitivnoj korelaciji s otvorenosti za iskustvo.*

**Ključne riječi:** *dimenzije osobnosti; domene metakognitivnih strategija; ocjene; sveučilišni studenti.*

## Uvod

Metakognicija je sposobnost razumijevanja, razmišljanja o vlastitom učenju i njegovoj kontroli. U osnovi se definira kao „razmišljanje o razmišljanju” i ima središnju ulogu u razvoju vještina učenja budući da je metakognitivna svijest usmjerena prema razvoju

<sup>1</sup> Akronim je iz originalnoga naziva na engleskom jeziku (International Personality Item Pool) i kao takav pojavljuje se u cijelom radu.

kognitivnih vještina (Gojkov, 2004, 2009). U prilog važnosti metakognicije u učenju stranoga jezika govore rezultati nekoliko istraživanja (Anderson, 2012; Flavell, 1976, 1979; Schraw, 1998; Wenden, 1998, 1999; Zhang i Goh, 2006). Korištenje metakognitivnih strategija je esencijalno za uspješno učenje jezika jer omogućuje učenicima utvrditi vlastite slabosti koje se mogu ispraviti, a to omogućuje bolje upravljanje vlastitim kognitivnim vještinama. S druge strane, osobine ličnosti u značajnoj su korelaciji sa strategijama učenja jezika. Velikih pet osobina ličnosti, također znane kao Model Velikih pet, obuhvaća pet širokih dimenzija koje neki psiholozi koriste kako bi opisali ljudsku osobnost. Tih pet dimenzija su *otvorenost prema iskustvu, savjesnost, ekstraverzija, ugodnost i neuroticizam*. Svaki faktor sastoji se od raznih povezanih i preciznijih primarnih karakteristika.

Chamorro-Premuzic i Furnham (2005) navode mogućnost da sazrijevanjem i napredovanjem kroz obrazovni sustav raste važnost varijabli koje ne spadaju u područje kognicije poput interesa, motivacije i osobina ličnosti. Zbog toga postoji sve veći interes za proučavanje odnosa između karakteristika osobnosti i nekognitivnih individualnih razlika u akademskom postignuću. Osobine ličnosti su važne za predviđanje uspjeha u višem obrazovanju zbog opadanja prediktivne moći kognitivnih sposobnosti na tom stupnju obrazovanja (Furnham i sur., 2003). Kriteriji akademskoga postignuća tijekom vremena se pomiču od čimbenika koji favoriziraju kognitivne sposobnosti poput kritičkoga mišljenja prema osobinama ličnosti i motivacijskim varijablama. Na primjer, pohađanje predavanja, pisanje zadaće, aktivno sudjelovanje u raspravama, interakcija s profesorima i kolegama su nekognitivni faktori koji očekivano utječu na akademsko postignuće (Chamorro-Premuzic i Furnham, 2005). Dakle, razumno je da su individualne razlike u osobinama ličnosti značajne varijable u predviđanju akademskoga postignuća (Chamorro-Premuzic i Furnham, 2003; Furnham i sur. 2003; Petrides i sur., 2005), koje je vrlo ovisno o metakogniciji.

## Model Velikih pet

Psiholozi se slažu da su osobine ličnosti stabilne i stalne karakteristike pojedinaca i njihova dosljednoga ponašanja u različitim situacijama (Dörnyei, 2005; Kayaoglu, 2013; Komarraju i Karau, 2005; Komarrajuet i sur., 2009; Nofle i Robins, 2007; Pervin i sur., 2005; Pervin i John, 2001). To znači da pojedince razlikuje jedinstven i esencijalno nepromjenjiv uzorak osobina, temperamenata i sklonosti. Prijašnja istraživanja otkrila su kako su Velikih pet osobina ličnosti, tj. *ekstraverzija, otvorenost prema iskustvu, neuroticizam, savjesnost i ugodnost* povezane s nizom raznih ljudskih ponašanja, uključujući postignuće u i motivaciju za učenje jezika (Komarraju i sur., 2009), izvedbu na poslu i jezični uspjeh (McCrae i Costa, 2003), akademski uspjeh (Chamorro-Premuzic i Furnham, 2003; Komarraju i Karau, 2005; Komarraju i sur., 2009; Martin i sur., 2006), usmenu izvedbu i želju za komuniciranjem (MacIntyre i Charos, 1996; MacIntyre i sur., 1998; Öz, 2014; Pavičić-Takač i Požega, 2011), tjeskobu vezanu uz učenje jezika (Dewaele i Al-Saraj, 2015; Payne i sur., 2007), akademski

uspjeh i stil učenja (Komarraju i sur., 2011) te stavove prema učenju stranoga jezika (Pourfeiz, 2015).

Povezanost između strategija učenja jezika i osobina ličnosti proučavao je Kang (2012). Rezultati govore u prilogu tomu da su učeničke osobine ličnosti u značajnoj korelaciji sa šest strateških grupa u ISUJ-u (Oxford, 1999). *Otvorenost prema iskustvu, savjesnost i ekstraverzija* u snažnoj su pozitivnoj korelaciji s većinom strategija učenja; stoga se smatra kako su *otvorenost prema iskustvu* i *savjesnost* najjači prediktori upotrebe strategija učenja. Ipak, *neuroticizam* je u negativnoj korelaciji s metakognitivnih strategijama. Komparativni rezultati dobiveni su u istraživanju Ayhana i Türkyilmaza (2015) povezanosti osobina ličnosti i upotrebe metakognitivnih strategija. Ti rezultati govore da su *otvorenost prema iskustvu, ekstraverzija, savjesnost* i *ugodnost*, ali ne i *neuroticizam*, u značajnoj korelaciji s upotrebom metakognitivnih strategija. Osim toga, Dewaele (2007) nije utvrdio korelaciju između stavova prema stranom jeziku i *neuroticizma* i ocjena iz stranoga jezika, iako je postojala tendencija prema pozitivnoj korelaciji u engleskom kao trećem jeziku (Dewaele, 2002).

Kao i s metakognicijom, očite su teorijske veze između strateškoga pristupa učenju i *savjesnosti*. U stvari, empirijsko istraživanje (Diseth, 2003) navodi snažnu korelaciju između *savjesnosti* i strateškoga pristupa orijentiranoga na uspjeh. Neki rezultati također sugeriraju da je uspjeh u učenju povezan sa *savjesnosti* (Chamorro-Premuzic i Furnham, 2003). Oni svjedoče značajnom učinku *savjesnosti* na uspjeh u jezičnom području, poglavito da *savjesnost* dokazano funkcionira kao strateški pristup učenju jezika.

*Savjesnost* podrazumijeva sposobnost samokontrole i discipliniranoga nastojanja ostvarenja ciljeva. Osoba s visokom razinom *savjesnosti* je organizirana, ima jasne i visoke ciljeve kojima teži unatoč preprekama, vjeruje u sebe i vlastite sposobnosti. Ovaj stav i ponašanje u pozitivnoj su vezi s akademskim uspjehom i postignućem u učenju jezika. *Savjesnost* je najvažniji prediktor školskoga uspjeha od svih dimenzija osobina ličnosti. Visoka razina *savjesnost* povezana je s osobinama koje su nužne za uspješno učenje i akademsko postignuće poput organizacije, pouzdanosti, učinkovitosti, željom za postignućem itd. (Matthews i sur., 2003). Neki autori tvrde da visok stupanj *savjesnosti* može nadoknaditi niže intelektualne sposobnosti (Chamorro-Premuzic i Furnham, 2003). U kasnijim stadijima obrazovanja osobine ličnosti koje se povezuju sa *savjesnosti* i *ustrajnosti* dobivaju važniju ulogu od inteligencije, što je snažan prediktor školskoga uspjeha na nižim razinama obrazovanja.

*Otvorenost prema iskustvu* ima dva rezultata. *Otvorenost* je u pozitivnoj korelaciji sa završnim ocjenama (Farsides i Woodfield, 2003) i poboljšava upotrebu strategija učenja (Mumford i Gustafson, 1988), ali su neki autori ustanovili kako kreativna i maštovita priroda pojedinaca s razvijenom *otvorenosti prema iskustvu* može biti nedostatak u situacijama evaluacije reprodukcije aktualnoga znanja definiranoga kurikulumom. *Otvorenost prema iskustvu* je prednost u školskim situacijama kreativnoga rješavanja problema (De Fruyt i Mervielde, 1996).

Uspješne učenike karakterizira kombinacija *savjesnosti* i *otvorenosti prema iskustvu*, tj. visoka razina interesa za nove ideje i stupanj sposobnosti koji omogućuje usmjeravanje interesa na kontroliran i konstruktivan način. Takve učenike odlikuje radoznalost, marljivost, organizacija i visoka razina aspiracije i kreativnosti.

Istraživanja pokazuju da su ekstraverti bolji na nižim, a introverti na višim razinama obrazovanja. Ekstravertirani učenici više su osjetljivi na nagrade, a introvertirani na kaznu. Rowell i Renner (1975) su dokazali da ekstraverti preferiraju nestrukturirano učenje i da su najbolji učenici obično introverti s visokom razinom inteligencije. Uspjeh u učenju ekstravertiranih i introvertiranih učenika prvenstveno je rezultat načina na koji je organizirana njihova okolina učenja, a manje njihovih osobina.

Veze između *ugodnosti* i školskoga uspjeha općenito se ne pokazuju u istraživanju (Shiner i sur., 2003). Unatoč tome, u studiji autora Laidra i sur. (2007) na 3 618 učenika dokazan je pozitivan odnos između *otvorenosti prema iskustvu*, *ugodnosti*, *savjesnosti* i školskoga uspjeha.

Veliki broj istraživanja ukazuje na važnost *emocionalne stabilnosti* za školski uspjeh (Entwisle i Cunningham, 1968). Blaga emocionalna uzbuđenost pozitivno utječe na ishod ispita/testova i potiče angažman raznih intelektualnih funkcija, dok izražena emotivnost blokira složenije mentalne funkcije i stvara nesigurnost i napetost. McKenzie i Tindell (1993) naglašavaju važnost procesa medijacije: samokontrola i fokus na motivaciju mogu nadoknaditi negativan učinak izraženoga *neuroticizma* na školski uspjeh.

Rezultati istraživanja pokazuju značajan odnos između četiri osobine ličnosti (*otvorenost prema iskustvu*, *ugodnost*, *savjesnost* i *ekstraverzija*) i izvrsnih rezultata učenika iz stranoga jezika na *Međunarodnom ispitu znanja engleskog jezika (IELTS)* kao testu kompetencije u engleskom jeziku na institucijama višega obrazovanja. Erfani i Mardan (2017) proveli su istraživanje koje je pokazalo da Velikih pet osobina ličnosti imaju pozitivne i snažne prediktivne moći za oboje IELTS rezultate i akademski uspjeh. Ipak, *neuroticizam* je negativno povezan s IELTS rezultatima i akademskim uspjehom i nema moć predviđanja. Rezultati istraživanja pokazali su kako se optimistični, druželjubivi i vedri učenici mogu okoristiti svojim osobinama pri polaganju *Proficiency* ispita. Osim toga, istraživanja govore kako su iste osobine prediktori visokih rezultata i na IELTS i akademskoga uspjeha. Ako se učenici slažu s ostalima, otvoreniji su prema iskustvu, ponašaju se ekstravertirano i sposobni su savjesno učiti, njihov uspjeh u učenju jezika je veći. Ovaj zaključak je u skladu s rezultatima istraživanja Gassa i Selinkera (2008) koji potvrđuju da su neki učenici bolji u učenju stranoga jezika od ostalih zbog različitih razloga, a većina njih nema veze s psiholingvističkim faktorima ili jezikom, već su vezani s individualnim osobinama. Ipak, postoje i suprotni rezultati poput onih istraživanja Noftlea i Robinsa (2007) koji pokazuju slabu korelaciju između *otvorenosti prema iskustvu* i akademske izvedbe i Zabihija (2011) koji je ustanovio negativnu korelaciju između *ekstraverzije* i akademskoga uspjeha.



## Metakognitivne strategije

Metakognitivne strategije (Oxford, 1990) poput identificiranja vlastitih potreba i preferencija za stilove, planiranja zadataka učenja stranoga jezika, sakupljanja i organiziranja materijala, uređivanja prostora za učenje i rasporeda, nadgledanja pogrešaka, evaluacije uspjeha i evaluacije uspjeha bilo kojeg tipa strategije učenja direktno su angažirane u upravljanju cjelokupnim procesom učenja. Prema Oxfordu (1990), metakognitivne strategije uključuju tri glavne domene: *usredotočeno učenje, planiranje i organizaciju u procesu učenja i evaluaciju*. *Usredotočeno učenje* odnosi se na utvrđivanje vlastitih preferencija za stilove učenja i potreba, kao i svijest o postupku učenja jezika i izvedbi zadataka. *Planiranje i organizacija procesa učenja* odnosi se na prikupljanje i organizaciju materijala, uređivanje prostora za učenje i rasporeda, kao i postavljenje ciljeva i odabir strategija za njihovo postizanje. *Evaluacija* obuhvaća praćenje pogrešaka i evaluaciju uspjeha u zadacima kao i procjenu ishoda učenja, ciljeva i korištenih strategija učenja. Mnogi su istraživači otkrili da uspješni i metakognitivno osviješteni učenici jezika koriste više strategija učenja u usporedbi s onima koji nisu osviješteni u tom smislu (Anderson, 2002, 2012; Hart i Memnun, 2015; Hashempour i sur., 2015; Iwai, 2016; Memnun i Akkaya, 2009; Mokhtari i Reichard, 2004; Negretti i Kuteeva, 2011; Öz, 2015; Schraw, 1998; Schraw i Dennison, 1994; Wenden, 1998, 1999).

Sun (2013) je utvrdio značajnu korelaciju između izvrsnosti u engleskom jeziku i učestalosti uporabe metakognitivnih strategija. Istraživanja provedena s učenicima engleskoga jezika u Južnoj Africi (Dreyer i Oxford, 1996) i Turskoj (Oxford i sur., 1998) pokazala su da su metakognitivne strategije često uvjerljivi prediktori izvrsnosti u stranom jeziku.

Ipak, malo je i nedovoljno empirijskih istraživanja koja razmatraju vezu između osobina ličnosti i metakognitivnih strategija u poučavanju stranoga jezika na sveučilišnoj razini (Asmali, 2014; Rogulj, 2016). Otkriveno je da su učenici s visokom razinom *otvorenosti prema iskustvu* skloni češćoj primjeni kognitivnih i metakognitivnih strategija (Rogulj, 2016), a oni s visokom razinom *ugodnosti* pokazivali su izraženu sklonost upotrebi metakognitivnih i afektivnih socijalnih strategija (Asmali, 2014). Osim toga, neki rezultati su kontradiktorni, stoga ovo istraživanje doprinosi ispitivanju učinaka Velikih pet osobina ličnosti na učeničko korištenje metakognitivnim strategijama u učenju i uspjehu u učenju stranoga jezika. Pretpostavlja se da uspostavljanje veza između osobina ličnosti kao varijabli međusobnih razlika i korištenja metakognitivnih strategija može pomoći učiteljima u integraciji programa za razvijanje metakognicije u kurikule i osigurati savršeno okruženje za međuigru metakognitivnih strategija i osobina ličnosti prema učinkovitijem učenju jezika i uspjehu u istom.

Sedam je razloga koji opravdavaju istraživanje osobina ličnosti kao prediktora uspjeha u učenju jezika (O'Connor i Paunonen, 2007). Prvo, literatura navodi da ponašanje osobe, koje čini integralni dio osobina ličnosti, utječe na stvaranje određenih navika koje posljedično utječu na uspjeh u učenju jezika. Drugi argument odnosi se na činjenicu da kognitivne sposobnosti odražavaju sposobnost pojedinca za postignuće u određenim

okolnostima (Ackerman i Heggestad, 1997; Furnham i Chamorro-Premuzic, 2004). Bez obzira na razinu sposobnosti, količina sposobnosti koju će pojedinac upotrijebiti ovisi o osobinama ličnosti kao i o tipičnom intelektualnom angažmanu koji su voljni uložiti u učenje (Ackerman i Heggestad, 1997).

Zbog prethodno spomenutog, osnova za istraživanje odnosa između Velikih pet osobina ličnosti, uspjeha u učenju jezika i metakognitivnih strategija leži u činjenici da se taj odnos na neki način razlikuje od učenja ostalih predmeta. Dobri učenici jezika su optimistični, društveni i vedri, spremni složiti se s drugima, otvoreniji prema iskustvu, sposobni ponašati se ekstravertirano i učiti savjesnije. Osim toga, oni imaju visoku razinu interesa za nove ideje i stupanj sposobnosti za usmjeravanje vlastitih interesa na kontroliran, konstruktivan i kreativan način. Štoviše, pri upravljanju procesom učenja ti učenici koriste metakognitivne strategije, npr. planiranje zadataka drugog jezika, utvrđivanje vlastitoga stila učenja i potreba u učenju, prikupljanje i organiziranje materijala, nadgledanje pogrešaka, uređivanje prostora za učenje i rasporeda, evaluaciju uspjeha strategije učenja i evaluaciju uspjeha u izvedbi zadataka. Purpura (1999) navodi da metakognitivne strategije imaju „značajan pozitivan i direktan učinak na upotrebu kognitivnih strategija, daju jasan dokaz da upotreba metakognitivnih strategija ima višu funkciju od one upotrebe kognitivnih strategija u izvršavanju zadataka” (str. 61).

Prema spoznajama autora, nema prethodnih istraživanja u Srbiji u kojoj mjeri osobnost utječe na upotrebu metakognitivnih strategija u učenju stranoga jezika. Osim toga, rezultati dobiveni u jednom specifičnom kontekstu učenja jezika ne moraju biti relevantni za drugi. Dakle, potrebno je provesti istraživanja koja bi ispitala korištenje strategije učenja jezika u različitim kontekstima. S obzirom na navedeno, ova studija istražila je utjecaj osobina ličnosti na upotrebu metakognitivnih strategija učenja sveučilišnih studenata i njihov uspjeh u učenju stranoga jezika u Srbiji.

## Cilj istraživanja

Problem istraživanja je odnos između osobina ličnosti i tri domene metakognitivnih strategija u učenju stranih jezika jer one direktno i indirektno doprinose ishodima učenja jezika. Zbog toga što suvremeni trendovi u istraživanju naglašavaju situacijsku prirodu pojedinačnih čimbenika i ukazuju na novu dinamičku konceptualizaciju u kojoj individualni čimbenici ulaze u svojevrsnu interakciju sa situacijskim parametrima (Dörnyei, 2005), cilj je ovoga istraživanja ispitati odnose između osobina ličnosti i aspekata metakognitivnih strategija u učenju jezika.

Kako bi se stekao jasniji uvid i operacionalizirao cilj istraživanja, formulirana su sljedeća pitanja:

1. Koje su procijenjene razine osobina ličnosti učenika i njihove upotrebe metakognitivnih strategija?
2. U kojoj mjeri osobine ličnosti predviđaju upotrebu metakognitivnih strategija u učenju jezika?
3. U kojoj mjeri osobine ličnosti i upotreba metakognitivnih strategija predviđaju uspjeh u učenju stranoga jezika?

Formulirane su sljedeće hipoteze:

H1: Osobine ličnosti su u korelaciji sa sve tri domene metakognitivnih strategija (usredotočeno učenje, planiranje i organizacija procesa učenja te evaluacija) u učenju jezika.

Savjesnost uključuje osobine poput organizacije, kompetencije, temeljitosti, samodiscipline i pouzdanosti. Postoje očite teorijske veze između metakognicije kao strateškoga pristupa učenju i savjesnosti. Neka su istraživanja (Diseth, 2003) pokazala jaku korelaciju između savjesnosti i strateškoga pristupa učenju. Dokazano je kako su otvorenost prema iskustvu, ekstraverzija i ugodnost u značajnoj korelaciji s upotrebom metakognitivnih strategija (Ayhan i Türkyılmaz, 2015) u učenju jezika. Kang (2012) je ustanovio da je neuroticizam u negativnom odnosu s metakognitivnim strategijama učenja jezika.

H2: Osobine ličnosti su prediktori upotrebe metakognitivnih strategija u učenju jezika.

Kang (2012) je dokazao da su otvorenost prema iskustvu i svjesnost najznačajniji prediktori korištenja metakognitivnih strategija u učenju jezika. Osim toga, učenici s visokim razinama otvorenosti prema iskustvu skloni su češćoj upotrebi kognitivnih i metakognitivnih strategija (Rogulj, 2016). Učenici s visokom razinom ugodnosti pokazali su veću sklonost upotrebi metakognitivnih strategija (Asmali, 2014).

H3: Osobine ličnosti i upotreba metakognitivnih strategija u značajnoj su korelaciji s uspjehom učenika u učenju jezika.

Neki rezultati istraživanja također govore u prilogu tome da je uspjeh u učenju jezika povezan s određenim osobinama ličnosti (Chamorro-Premuzic i Furnham, 2003; Dewaele, 2007; Rogulj, 2016) kao i s upotrebom metakognitivnih strategija.

## Uzorak

Uzorak je uključivao 401 studenta (56,9 % djevojaka) koji uče strani jezik; 295 sudionika pohađalo je nastavu engleskog jezika i 106 studenata kolegije iz njemačkog jezika. Distribucija sudionika prema dobi i studijskom jezičnom programu (engleski i njemački jezik) bila je relativno podjednaka budući da su svi sudionici bili na prvoj ili drugoj godini studija. Srednja dob sudionika bila je 19,77 godina (SD = 2,02), a fakulteti na kojima studiraju su Visoka škola strukovnih studija za odgajatelje Mihailo Palov u Vršcu (106) i Fakultet tehničkih znanosti u Novom Sadu (295). Sudjelovanje svih studenata u istraživanju bilo je dobrovoljno i bez naknade, nakon što su u cijelosti informirani o istraživanju. Anonimno su ispunjavali upitnik metodom papira i olovke na početku nastave stranoga jezika u zimskom semestru akademske godine 2017./2018. Cijeli postupak trajao je 20 minuta.

## Instrumenti

Goldbergov Međunarodni fond čestica ličnosti IPIP (IPIP; Goldberg, 2001): Velikih pet osobina ličnosti su procjenjivane prema Goldbergovim markerima za javnu domenu, prevedenima na srpski jezik. Svaka je osobina procjenjivana s deset čestica na petostupanjskoj Likertovoj skali (1 – u potpunosti se ne slažem, 5 – u potpunosti se

slažem). Pouzdanost svake skale je: *Ekstraverzija*  $\alpha = .75$ , *Savjesnost*  $\alpha = .73$ , *Ugodnost*  $\alpha = .77$ , *Emocionalna stabilnost*  $\alpha = .86$  i *Otvorenost prema iskustvu*  $\alpha = .71$ .

Oxfordin (1990) Inventar strategija učenja jezika (ISUJ): originalno postoje dvije verzije ISUJ, za govornike engleskoga jezika koji uče drugi jezik (verzija 5.1) i za govornike drugih jezika koji uče engleski kao strani jezik (verzija 7.0). U ovom istraživanju koristili smo kategoriju metakognitivnih strategija (9 čestica  $\alpha = .86$ ) verzije 7.0 koja je prevedena na srpski jezik kako bi se dobili precizniji rezultati. Pouzdanost instrumenta izračunata je na postojećem uzorku istraživanja. Skala metakognitivnih strategija podijeljena je u tri podskale koje su upotrijebljene za upravljanje cjelokupnim procesom učenja i primijenjene u istraživanju na sljedeći način:

1 *Usredotočeno učenje* ( $\alpha = .823$ ) – identifikiranje vlastitih preferencija za stil učenja i potreba, planiranje zadataka drugoga jezika.

ISUJ 30 – Pokušavam pronaći što više načina za korištenje mog engleskoga/njemačkoga.

ISUJ 32 – Pratim kada netko govori na engleskom/njemačkom.

ISUJ 33 – Pokušavam pronaći način kako biti bolji učenik engleskoga/njemačkoga.

2 *Planiranje i organizacija procesa učenja* ( $\alpha = .829$ ) – prikupljanje i organizacija materijala, uređivanje prostora za učenje i rasporeda.

ISUJ 34 – Planiram svoj raspored tako da imam dovoljno vremena za učenje engleskoga/njemačkoga.

ISUJ 35 – Tražim ljude s kojima mogu razgovarati na engleskom/njemačkom.

ISUJ 36 – Tražim prigode da čitam na engleskom/njemačkom što je više moguće.

3 *Evaluacija* ( $\alpha = .811$ ) – nadgledanje pogrešaka, evaluacija uspjeha u zadacima i uspjeha bilo koje strategije učenja.

ISUJ 31 – Primjećujem svoje pogreške u engleskom/njemačkom i koristim te informacije za napredak.

SILL 37 – Imam jasne ciljeve za unapređivanje svojih vještina u engleskom/njemačkom.

SILL 38 – Razmišljam o svojem napretku u učenju engleskoga.

Vrijednosti Cronbachova alpha koeficijenta za ove skale su u rasponu od  $\alpha = .811$  do  $\alpha = .829$ , što ukazuje na prihvatljivu pouzdanost.

## Rezultati

### *Deskriptivna statistika*

Rezultati deskriptivne statistike (Tablica 1) pokazuju da ne postoje univarijatne devijacije od normalne distribucije budući da su vrijednosti asimetrije i spljoštenosti u dozvoljenom rasponu od  $\pm 1,5$  (Tabachnick i Fidell, 2013). Osim toga, *emocionalna stabilnost* i *neuroticizam* su na suprotnim krajevima iste dimenzije i ispituju se kao takve.

Tablica 1

Nadalje, metode deskriptivne statistike (Tablica 2) su korištene su kako bi se utvrdilo koji je aspekt metakognitivne strategije najuobičajeniji u uzorku. Više od 80 % sudionika

pokazuje vrlo visoke ili visoke rezultate na dimenziji *usredotočenoag učenja*, oko 48 % pokazuje kako gotovo uvijek ili često koriste *planiranje i organizaciju procesa učenja* kao strategiju, a oko 70 % ispitanika vrlo često ili često koristi *evaluaciju* kao aspekt metakognitivnih strategija učenja. Takvi rezultati pokazuju da ispitani studenti vrlo često koriste tri aspekta metakognitivnih strategija.

Tablica 2.

### **Korelacije između dimenzija osobnosti i postignutoga uspjeha**

Kao što je vidljivo iz Tablice 3, postoji značajna korelacija između uspjeha u učenju i upotrebe dvije domene metakognitivnih strategija: *usredotočenoga učenja* i *evaluacije*.

Sve tri domene metakognitivnih strategija imaju značajne međukorelacije, što znači da se međusobno potiču i unaprjeđuju.

Kada razmatramo osobine ličnosti, pronađene su sljedeće korelacije: između *ekstraverzije* i tri osobine ličnosti (*ugodnosti, emocionalne stabilnosti i otvorenosti prema iskustvu*), između *savjesnosti* i *ugodnosti, emocionalne stabilnosti i otvorenosti prema iskustvu; ugodnosti i ekstraverzije, savjesnosti i otvorenosti prema iskustvu; emocionalne stabilnosti i ekstraverzije, savjesnosti i otvorenosti prema iskustvu*, dok je *otvorenost prema iskustvu* u značajnoj korelaciji sa svim osobinama ličnosti i domenama metakognitivnih strategija, osim s planiranjem i organizacijom u procesu učenja.

Također je ustanovljena značajna negativna korelacija između postignuća u učenju jezika i *savjesnosti* i *ugodnosti*, dok je ista u pozitivnoj korelaciji s *otvorenosti prema iskustvu*. Mnoge korelacije koje dosežu statističku značajnost su u rasponu  $\pm 0.2$  te se stoga ne mogu smatrati jakim. Jedina korelacija viša od  $0.2$  utvrđena je između *otvorenosti prema iskustvu* i *usredotočenoga učenja*.

Tablica 3.

### **Odnosi između aspekata Velikih pet osobina ličnosti i tri domene metakognicije**

Kako bismo istražili prediktivnu ulogu osobina ličnosti u odnosu na različite domene metakognitivnih strategija, proveli smo tri multiple linearne regresije. Sažetak regresijskih modela prikazan je u Tablici 4. Dva od tri modela dosežu razinu statističke značajnosti, oni koji predviđaju *usredotočeno učenje* i *evaluaciju*, dok model s *planiranjem i organizacijom u procesu učenja* kao kriterijem nije statistički značajan. Značajni modeli objašnjavaju između 4,1 % i 6,7 % kriterijske varijance.

Analiza pokazuje da se gotovo 7 % strategije *usredotočenoga učenja* može objasniti osobinama ličnosti.

Tablica 4.

Vrijednosti beta koeficijenata za statistički značajne regresijske modele prikazani su u Tablici 5. *Otvorenost prema iskustvu* jedini je značajni prediktor dvije domene metakognitivnih strategija: *usredotočenoga učenja*, koje podrazumijeva identificiranje

vlastitih preferencija za stilove učenja i planiranje, i *evaluacije*, koja obuhvaća praćenje pogrešaka, evaluaciju uspjeha na zadacima i uspjeh bilo koje strategije učenja. Ti su odnosi pozitivno orijentirani, što znači da izraženija osobina znači češću upotrebu aspekata metakognitivnih strategija učenja.

Tablica 5.

Dobiveni rezultati pokazuju:

H1: osobine ličnosti u korelaciji su sa sve tri domene metakognitivnih strategija (*usredotočeno učenje, planiranje i organizacija u procesu učenja i evaluacija*) u učenju jezika. Ova hipoteza je djelomično potvrđena.

*Savjesnost* je u slaboj korelaciji s dvije domene metakognitivnih strategija, tj. *usredotočenim učenjem* (.08) i *planiranjem i organizacijom u procesu učenja* (.08), a u statistički značajnoj korelaciji s *evaluacijom* (.12). *Otvorenost prema iskustvu* je u statistički značajnoj korelaciji s dvije domene metakognitivnih strategija, *usredotočenim učenjem* (.25) i *evaluacijom* (.18), dok je u niskoj korelaciji s *planiranjem i organizacijom u procesu učenja* (.09). *Ekstraverzija* je u niskoj i negativnoj korelaciji sa sve tri domene metakognitivnih strategija, tj. *usredotočenim učenjem* (-.02), *planiranjem i organizacijom u procesu učenja* (-.00) i *evaluacijom* (-.04). *Ugodnost* je u statistički značajnoj korelaciji s dvije domene metakognitivnih strategija, tj. *usredotočenim učenjem* (.11) i *evaluacijom* (.15), dok je u niskoj korelaciji s *planiranjem i organizacijom u procesu učenja* (.02). *Emocionalna stabilnost* je u niskoj korelaciji sa sve tri domene metakognitivnih strategija: *usredotočeno učenje* (.02), *evaluacija* (-.00) i *planiranje i organizacija u procesu učenja* (.04).

H2: osobine ličnosti su prediktori korištenja metakognitivnih strategija u učenju jezika. Ova hipoteza je djelomično potvrđena.

*Otvorenost prema iskustvu* jedini je značajan prediktor dvije domene metakognitivnih strategija: *usredotočenoga učenja*, tj. utvrđivanja vlastitih preferencija za stil učenja i planiranja zadataka učenja drugog jezika i *evaluacije*, tj. praćenja pogrešaka, evaluacije uspjeha na zadacima i procjene uspjeha bilo koje vrste strategije učenja. Ti odnosi su pozitivno orijentirani, što znači da izraženije osobine znače češću upotrebu metakognitivnih strategija.

H3: osobine ličnosti i upotreba metakognitivnih strategija u značajnoj su korelaciji s uspjehom studenata u učenju jezika. Ova je hipoteza djelomično potvrđena.

Utvrđena je negativna korelacija između uspjeha u učenju jezika i *savjesnosti* (-.16) i *ugodnosti* (-.11). S druge strane, uspjeh u učenju u pozitivnoj je korelaciji s *otvorenosti prema iskustvu* (.078). Te su korelacije relativno slabe.

Postoji statistički značajna korelacija između uspjeha u učenju jezika i upotrebe dvije domene metakognitivnih strategija, tj. *usredotočenoga učenja* koje obuhvaća utvrđivanje vlastitih potreba i preferencija u učenju stranoga jezika te pristup jezičnim zadacima (.25) i *evaluacije* koja obuhvaća praćenje pogrešaka, evaluaciju završenih zadaća i uspjeha upotrebom strategija učenja (.18).

## Rasprava

Unatoč znanju specifičnom za domenu i kognitivnim ograničenjima, metakognicija igra vitalnu ulogu u razvoju vještina učenja jezika. Kada razmatramo upotrebu tri različite domene metakognitivnih strategija, više od 80 % ispitanika imalo je visoke ili vrlo visoke rezultate u *usredotočenom učenju*, oko 48 % njih je izjavilo da vrlo često ili često koriste *planiranje ili organizaciju procesa učenja* kao strategiju, a otprilike 70 % ispitanika vrlo često ili često koriste *evaluaciju* kao domenu metakognitivne strategije učenja. Takvi rezultati pokazuju da ispitanici vrlo često koriste sve tri domene metakognitivnih strategija. Rezultati ovoga istraživanja u skladu su sa sličnim istraživanjima koja nalaze kako su visoke razine metakognitivne osviještenosti nužne za uspjeh u učenju jezika (Babakhani, 2014; Öz, 2007, 2015; Sun, 2013; Zhang i sur., 2013).

Osim toga, rezultati ovoga istraživanja govore u prilog značajnoj korelaciji između jedne osobine ličnosti kao individualne varijable i metakognitivnih strategija, podupirući istraživanje (Dörnyei, 2005) provedeno kako bi se ispitaio učinak osobina ličnosti na razne aspekte učenja stranoga jezika. Rezultati ovoga istraživanja pokazuju kako je *otvorenost prema iskustvu* prediktor dvije domene metakognitivnih strategija, tj. *usredotočenoga učenja* i *evaluacije*. Ipak, *svjesnost*, *ekstraverzija* i *emocionalna stabilnost* nemaju značajnost u predviđanju bilo koje domene metakognitivnih strategija.

Ovaj rezultat u skladu je s rezultatima istraživanja Oza (2016) koji govore da je *otvorenost prema iskustvu* najjači prediktor metakognitivnih strategija. Rezultati pokazuju da će društveniji, topliji, maštovitiji, kreativniji i otvoreniji pojedinci vjerojatnije biti metakognitivno svjesni vlastite upotrebe strategija prilikom učenja jezika. Učenici koji visoke razine *otvorenosti prema iskustvu* kontroliraju svoje učenje i koordiniraju postupak učenja različitim sredstvima poput usredotočenosti, organizacije učenja, planiranja i evaluacije. Oni također koriste vlastito mentalno procesuiranje jezika na različite načine poput akumuliranja i korištenja informacija, upotrebe i grupiranja slika, logičkoga razmišljanja, pogađanja ili korištenja sinonima. Ovaj nalaz je u skladu s istraživanjima u raznim kulturama (Kang, 2012; Fazeli, 2012). Ipak, postoje neki rezultati koji nisu u skladu s rezultatima ovoga istraživanja (Busato i sur., 2000), a koji tvrde da je malo vjerojatno da *otvorenost prema iskustvu* utječe na akademsko ponašanje.

Osim toga, u ovom je istraživanju utvrđeno kako je *ugodnost* u značajnoj korelaciji s dvije domene metakognitivnih strategija, tj. *usredotočenim učenjem* i *evaluacijom*, što je u skladu s istraživanjem Ayhana i Türkyilmaza (2015). Čini se kako su uspješna suradnja s vršnjacima i drugim ljudima, kao i smisleno korištenje društvenih konteksta, aktivatori korištenja stranoga jezika, stoga bi *ugodnost* mogla biti preduvjet za ispunjavanje drugih zahtjeva. Posljedično, čini se kako učenici s višom razinom *ugodnosti* više koriste metakognitivne strategije.

U ovom istraživanju utvrđena je značajna korelacija između *savjesnosti* i jedne domene metakognitivnih strategije, tj. *evaluacije*, što je u skladu s rezultatima istraživanja Ayhana i Türkyilmaza (2015) koji su izvijestili o njezinom strogom odnosu s upotrebom metakognitivnih strategija među sveučilišnim studentima. Studenti koji

su samodisciplinirani, dobro organizirani i orijentirani prema cilju imaju višu sklonost upotrebi strategija učenja jezika od onih studenata kojima nedostaje samopouzdanja i organiziranosti. U cijelosti, savjesni studenti učinkovitije koriste vrijeme (Bidjerano i Dai, 2007), redovito vježbaju (Courneya i Hellsten, 1998), definiraju visoke standarde učenja (Little i sur., 1992) i favoriziraju analitičko i sistematično učenje.

Rezultati ovoga istraživanja ne govore u prilog korelaciji između *emocionalne stabilnosti* i metakognitivnih strategija, što je u skladu s prethodnim istraživanjem (Ayhan i Türkyilmaz, 2015) u kojemu nije ustanovljena statistički značajna korelacija između upotrebe metakognitivnih strategija i *neuroticizma*. Dakle, nismo potvrdili ni pozitivnu ni negativnu korelaciju s upotrebom metakognitivnih strategija. Ipak, neki su istraživači dokazali negativan učinak *neuroticizma* na obrazovne ishode i učenje jezika (Bandura, 1986; Costa i McCrae, 1992; Kang, 2012; Nahl, 2001; Komarraju i sur., 2009, 2011; Pourfeiz, 2015) što implicira da manjak emocionalne stabilnosti ima negativan utjecaj na ponašanje učenja. Poglavitno, nedostatak *emocionalne stabilnosti* može imati negativan učinak na upotrebu metakognitivnih strategija učenika. Rezultati do kojih je došao Kang (2012) govore o značajnoj pozitivnoj korelaciji između *savjesnosti, otvorenosti prema iskustvu i ekstraverzije* i strategija učenja jezika, dok je *neuroticizam* bio u negativnoj korelaciji s metakognitivnim strategijama.

Kada razmatramo uspjeh u učenju jezika, ovo istraživanje utvrdilo je statistički značajnu negativnu korelaciju između uspjeha u učenju jezika i *savjesnosti* i *ugodnosti* te s druge strane pozitivnu korelaciju s *otvorenosti prema iskustvu*. Ipak, može se primijetiti da su utvrđene korelacije slabe. Rezultati nekih drugih istraživanja (Chamorro-Premuzic i Furnham, 2003; Komarraju i sur., 2011; Rogulj, 2016) govore u prilog značajnom pozitivnom odnosu između *savjesnosti* i *ugodnosti* i akademskoga postignuća, što nije u skladu s našim rezultatima.

## Zaključci i implikacije za nastavu

Na osnovi dobivenih rezultata može se zaključiti da osobine ličnosti imaju utjecaj na upotrebu metakognitivnih strategija i uspjeh u učenju jezika. Kada razmatramo domene metakognitivnih strategija, rezultati govore u prilog tome da ispitanici češće koriste *usredotočeno učenje* i *evaluaciju* nego *planiranje* i *organizaciju procesa učenja*. Budući da su ispitanici bili uspješni studenti, ovaj rezultat ukazuje na to da osoba koja jednom postigne visoku razinu samoregulacije učenja ne treba biti u potpunosti svjesna procesa koji se događaju u pozadini (Gojkov, 2009), kao i da svi elementi teorijskoga modela metakognicije nisu nužno u domeni svjesnoga iskustva na svim stupnjevima aktivnosti (Gojkov, 2004). Naposljetku, osobine ličnosti imaju utjecaj na upotrebu metakognitivnih strategija i uspjeh u učenju jezika.

Rezultati ovoga istraživanja obuhvaćaju niz praktičnih implikacija koje se odnose na podizanje razine svijesti učitelja/profesora o učenju kao dinamičnom procesu zasnovanom na interakciji između osobina ličnosti i strategija poučavanja kao individualnih varijabli. Osviještenost učitelja treba rezultirati fleksibilnim pristupom



aktivnosti poučavanja koje bi uključivalo raznolike aktivnosti i zadatke te potaknulo učenike na samostalno učenje. S obzirom na navedeno, učitelji i profesori trebali bi poticati razvoj sposobnosti učenika koje će im omogućiti da postanu bolji u učenju jezika. Potrebno je napomenuti da je osposobljavanje učenika za razlikovanje vlastitih osobina ličnosti kao i izbora strategija učenja jezika od vitalnoga značaja. To će im pomoći u prepoznavanju svojih prednosti i mana i svakako u korištenju primjerenih strategija u skladu s njihovim osobnostima. Dakle, uloga učitelja u strateškom obrazovanju orijentiranom na osobnost vrlo je važna. Učitelji jezika trebaju uvoditi raznolike strategije i poučavati njihovu primjenu te tako osposobiti učenike za napredovanje i korištenje tih strategija u vlastitom procesu učenja. Osim toga, kurikulum učenja jezika trebao bi osigurati prilike različite upotrebe i razvoja metakognitivnih strategija te podići svijest o različitim osobnostima učenika. Isto tako, učitelji jezika trebali bi usvojiti učinkovite metakognitivne strategije i vještine u vlastitim praksama poučavanja.