

Mladen Radulović¹
Institute for Educational Research
Dragan Vesić²
Institute for Educational Research
Dušica Malinić³
Institute for Educational Research

Original scientific paper
UDK 316.74:37.037(497.11)
316.344.3:159.95–057.874
371.26:316.7(497.11)
submitted: 2. 12. 2019.
accepted: 27. 04. 2020



DOI: <https://doi.org/10.2298/SOC2002255R>

CULTURAL CAPITAL AND STUDENTS' ACHIEVEMENT: THE MEDIATING ROLE OF SELF-EFFICACY⁴

Kulturni kapital i postignuće učenika: medijatorska uloga samoefikasnosti

ABSTRACT: *In this research we set out to determine whether the effect of cultural capital on students' achievement is mediated by self-efficacy. Furthermore, we wanted to determine whether, in the context of this psychological factor, cultural capital maintains a direct effect on students' achievement. The stratified quota sample consisted of 575 eighth grade students from 30 primary schools on the territory of the Republic of Serbia. Mediation effect of self-efficacy was analysed in simple mediation model where cultural capital was predictor variable and achievement criteria. It was found that cultural capital in context of self-efficacy directly contributes to students' achievement ($\beta=.23$). Its indirect effect through students' sense of self-efficacy was also recognized ($\beta=.12$). The paper also presents the implications of our findings for educational policies and school practices. We discussed the need for revision of curriculum and the importance of formative assessment with special attention to providing a feedback that has positive effect on students' self-efficacy.*

KEY WORDS: *cultural capital, self-efficacy, achievement, mediation.*

APSTRAKT: *U radu nastojimo da odredimo da li je uticaj kulturnog kapitala na postignuće učenika posredovan učenikovim osećajem samoefikasnosti. Takođe, zanimalo nas je da li u kontekstu ovog individualnog psihološkog faktora kulturni kapital zadržava direktni uticaj na postignuće učenika. Stratifikovani uzorak*

1 mradulovic@ipi.ac.rs

2 vesic.dragan88@gmail.com

3 malinic.dusica@gmail.com

4 This research was funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia (Contract No. 451-03-68 / 2020-14 / 200018).

se sastojao od 575 učenika osmog razreda iz 30 osnovnih škola sa teritorije Republike Srbije. Medijatorska uloga samoefikasnosti je analizirana u prostom modelu medijacije u kome je kulturni kapital predstavljao nezavisnu, a postignuće učenika zavisnu varijablu. Istraživanje je pokazalo da kulturni kapital u kontekstu samoefikasnosti direktno doprinosi postignuću ($\beta=.23$). Takođe, utvrđen je i njegov indirektni uticaj preko osećaja samoefikasnosti učenika ($\beta=.12$). U radu su prikazane implikacije ovakvih nalaza za obrazovne politike i obrazovne prakse. Zaključili smo da je potrebno kontinuirano preispitivanje kurikuluma, kao i da poseban značaj može da ima formativno ocenjivanje sa naglaskom na pružanju povratne informacije učeniku koja bi imala pozitivan efekat na njegov osećaj samoefikasnosti.

KLJUČNE REČI: kulturni kapital, samoefikasnost, postignuće, medijacija.

In sociological research students' achievement is often explained by the cultural factors and characteristics of the education system which encourage the high achievement of students who grow up in a higher-class culture (Bourdieu & Passeron, 1990). At the same time, studies in the field of psychology consider school achievement within the context of students' individual characteristics, such as: self-efficacy, motivation, self-control, metacognition etc. In this exploratory study we attempt to bring sociological and psychological explanations closer by exploring the interaction of cultural capital and students' individual characteristics in the prediction of academic achievement. More precisely, we try to determine whether the effect of cultural capital on students' achievement is mediated by students' sense of self-efficacy. This way we are testing if sociological mechanisms leading to social reproduction could be more thoroughly understood if we bear in mind some individual psychological factors.

Cultural capital and achievement

Cultural capital, which was introduced into sociological theory by Pierre Bourdieu, together with economic and social, represents the three basic forms of capital (Bourdieu, 1986). Bourdieu believed that the conversion of different forms of capitals is possible, and that one type of capital may serve as a resource for acquiring others.

When we talk about cultural capital, we usually refer to academic qualifications, however, this term also relates to different cultural knowledge and aesthetic preferences (Spasić, 2004: 290). More specifically, Bourdieu differentiates between three forms of cultural capital: embodied, objectified, and institutionalized (Bourdieu, 1986: 243). Embodied cultural capital refers to the set of dispositions which make a person capable of appropriating high culture, objectified refers to the possession of material objects, such as works

of art and books, while institutionalized cultural capital refers to academic qualifications (*Ibid.*). Bourdieu mostly uses the concept of cultural capital in educational research, emphasizing that the education system has two functions: the function of the reproduction⁵ and that of the legitimation⁶ of existing social hierarchies. Cultural capital is the key element in the mechanism which facilitates the achievement of those functions since it is of particular importance in determining students' educational practices.

Bourdieu highlights the link between cultural capital and students' academic achievement given that the education system, as legitimate cultural dispositions, recognizes those which are in line with children from higher classes, thus placing children from lower classes in a non-privileged position because they "must acquire these cultural (linguistic, social) codes and school material in a parallel fashion" (Cvetičanin, 2012: 31). The significance of cultural dispositions in achievement can also be seen in the roles of the values which students bring to school, since teachers are influenced by „implicit norms which retranslate and specify the values of the dominant classes in terms of the logic proper to the education system”, thus making it “clear that candidates are handicapped in proportion to the distance between these values and those of their class of origin“ (Bourdieu & Passeron, 1990: 162).

Numerous studies have demonstrated the validity of Bourdieu's assumptions concerning the links between cultural capital and academic achievement. Despite the differences in understanding the concept of cultural capital itself, as well as the various methods of its operationalization, the correlation between cultural capital and academic achievement has been noted in research studies carried out in different societies, such as in USA (DiMaggio, 1982; Merolla & Jackson, 2014; Roscigno & Ainsworth-Darnell, 1999), Denmark (Jaeger, 2009; Jaeger, 2011), Holland (Kraaykamp & van Eijck, 2010), Norway (Andersen & Hansen, 2012), and Brazil (Marteleto & Andrade, 2013), as well as in some international studies (Bodovski, Jeon, & Byun, 2017; Huang & Liang, 2016).

Finally, a recent study carried out in Serbia also showed that cultural capital is related to students' achievement in primary schools (Radulović, Malinić, & Gundogan, 2017). Namely, secondary data analysis from the TIMSS 2015 research in Serbia showed a positive linear correlation between the cultural capital and achievement of students in the fourth grade of primary school, i.e. that the growth in cultural capital is accompanied by an increase in the scores which students achieved in mathematics and natural sciences tests (*Ibid.*).

5 The main function of education, according to Bourdieu, is the conversation of social positions, considering that the education system is organised in such a way as to reward students from higher classes, and to eliminate or promote the self-elimination of those from lower ones (Bourdieu & Passeron, 1990:159).

6 Alongside its reproduction function, the education system also has the function of „hiding its objective function“ (Bourdieu & Passeron, 1990: 208). More precisely, Bourdieu believes that by concealing its reproduction with the ideology of giftedness or abilities, the education system performs its legitimation function.

Self-efficacy and achievement

In spite of the fact that numerous theoreticians and researchers have devoted their attention to research of self-efficacy, this psychological construct still attracts the attention of academia. The concept of self-efficacy was introduced into psychology by Bandura (1977) and it represents the key component of social cognitive theory (Zimmerman, 2000). Self-efficacy is defined as the individual's estimation of his/her capabilities to organize and execute actions which lead to the achievement of a certain type of activity (Bandura, 1997). For the efficacy judgment, the individual's abilities and skills are less important, while the individual's beliefs about what they can do with those abilities and skills are more important (Bong & Skaalvik, 2003). When compared with students who doubt their own abilities, students with a high sense of self-efficacy are more persistent in achieving academic goals and invest more effort in overcoming challenges and obstacles (according to: Bandura, 1982, 1997; Schunk, 1995). Therefore, academic self-efficacy measures are „designed to tap exclusively the cognitive aspect of students' self-perceptions” (Bong & Skaalvik, 2003: 13). According to Bong and Skaalvik (2003) many authors assume that through self-regulatory mechanisms self-efficacy determines students' motivational and emotional processes.

Considering the wide explanatory power which it may possess (Bandura, 1982), the role of self-efficacy has been observed in different contexts. In the educational context, research has pointed out direct and/or indirect relations between students' self-efficacy and achievement (Caprara, Vecchione, Alessandri, Gerbino, & Barbaranelli, 2011; Chiu & Xihua, 2008; Doménech-Betoret, Abellán-Roselló, & Gómez-Artiga, 2017; Köseoğlu, 2015; Zimmerman, Bandura, & Martinez-Pons, 1992). One longitudinal study confirmed that beliefs about academic self-efficacy have higher contribution to students' achievement in the later stages of schooling comparing to the earlier ones (Caprara *et al.*, 2011). The findings also show that academic self-efficacy has a strong positive effect on grades in college (Zajacova, Lynch, & Espenshade, 2005). In addition to being a predictor of academic achievement (Usher & Pajares, 2008), self-efficacy is also linked to various motivational constructs (*Ibid.*), i.e. it was noted that self-efficacy presents „a highly effective predictor of students' motivation and learning“ (Zimmerman, 2000: 82).

The relationship between cultural capital and self-efficacy

The previous part of the paper presented the links between cultural capital, as sociological construct, and self-efficacy, as psychological construct, with school achievement. In this part of the paper we will point out theoretical considerations and research analysis pertaining to the relation between self-efficacy and cultural capital.

Firstly, it is necessary to emphasize that Bourdieu believed cultural capital to be related not only to students' achievement, but also to their attitudes to education because social conditions influence their „hopes, aspirations, motivations, willpower“ (Bourdieu & Passeron, 1990: 207). He claimed that, led by habitus⁷, students understand their chances of educational success and act in accordance with that knowledge (*Ibid.*). Therefore, students with high levels of cultural capital feel that education is not inaccessible and strive to higher educational levels, while students with lower cultural capital take up the position „That's not for the likes of us“ (*Ibid.*: 157). Bearing this in mind, it may be assumed that cultural capital is related to different individual psychological characteristics (self-control, self-efficacy, regulatory styles of motivation and metacognitive regulation) which can mediate its relationship with academic achievement. More precisely, the position “education is not for us” could be linked with self-efficacy, as it is on the basis of the feedback which they obtain from school that students lose/acquire the beliefs that they possess the skills and abilities to accomplish the tasks which the education system places before them.

In some studies, students' self-efficacy was considered in relation to the variables of family context (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996), including cultural capital. In one of the most recent studies in Serbia (Marić, Rodić Lukić, & Štrangarić, 2018), effect of cultural capital (institutionalized, embodied and objectified) and individual motivational factors (self-efficacy, school anxiety, intrinsic motivation and valuing education) on students' key competences was explored. The results showed that students' key competences are affected by individual and socio-cultural factors. More specifically, the research pointed out that objectified and embodied cultural capital effect competences directly and indirectly, and that embodied capital has the greatest positive effect on self-efficacy. The relationship between self-efficacy and cultural capital was also discussed in research carried out among English language teachers in Iran. This study showed that teachers with higher “cultural capital had greater self-efficacy and therefore were more successful in teaching English to students” (Tavakoli, Pahlavannezhad, & Ghonsooly, 2017: 1).

Still, there is surprisingly small number of papers which explore the relationship between cultural capital and self-efficacy, particularly within the context of school achievement. This represented an additional stimulus for carrying out exploratory research which could provide insight into the given relations.

7 Habitus, according to Bourdieu, represents a permanent set of dispositions which influence the practices the individual will generate (Bourdieu, 1984: 170). Habitus is developed through socialization and is influenced by the life conditions (quantity and structure of capital) which the individual has access to during childhood (*Ibid.*). These dispositions unwittingly influence practice even on the most automatic acts (Jenkins, 2006: 21). More precisely, lead by those dispositions in various specific situations defined by the characteristics of a given field (in our case education), the individual chooses certain practices.

Method

Goal

The aim of the research was to explore the relationship between cultural capital as a social factor of achievement and self-efficacy as one of the most important psychological factors of achievement (Bandura, 1982) More precisely, this research was realized as part of a wider project whose goal was to explore how young people value education, how they evaluate their abilities for academic achievement and how they see their educational future.⁸ Previous study conducted on the same data confirmed importance of self-efficacy, showing that self-efficacy is more strongly correlated to academic achievement than any other researched psychological variables, such as self-control, metacognitive self-regulation, regulatory styles of motivation (Džinović, Đević, & Đerić, 2019). Following that research, we set out to determine whether, and in what way, the effect of cultural capital on students' achievement was mediated by self-efficacy, as one of most important motivational factors. In addition, we were also interested in exploring whether in the context of this psychological factor, cultural capital maintains a direct effect on students' achievement.

The respondents and sampling procedure

The sample consists of 575 eighth grade students from primary schools on the territory of the Republic of Serbia. Firstly, a stratified quota sample of 30 schools was determined such that the number of schools from one region in relation to the total number of sampled schools is proportional to the number of children of school age from that region in relation to the total number of children in Serbia. The regions from which the quotas were determined were Vojvodina, Belgrade, Central and Western Serbia and Eastern and Southern Serbia (the region of Kosovo and Metohija was not included in the sampling). Within each region, the schools were chosen randomly, and within the framework of each school one class was also selected at random. The instruments were completed by all the students in the selected class (52% females), who were present in school at the time this research was carried out.

Variables and instruments

The questionnaire consists of questions organized into three groups. The first group includes a set of questions about the students' demographic characteristics (gender, age, place of residence, etc) and their school achievement. The second comprises questions for the assessment of the students' cultural capital. The third group, among other individual psychological characteristics, included scale which measured the students' academic self-efficacy.

8 To this aim, the students completed questionnaires referring to their school achievement, educational aspirations, attitudes towards knowledge and beliefs in their own educational abilities.

Students' achievement. The students' achievement was measured on the basis of the grades they gained in four school subjects (Serbian, History, Mathematics and Physics) in two time periods: the first at the end of the previous school year (the 2015/2016 school year) and the second at the moment of testing (the end of the first three month term of the 2016/2017 school year). The final average grade was calculated as the factor score on the 8 aforementioned grades ($\alpha=.95$).

Cultural capital. In literature there are several different conceptualizations of cultural capital and consequently different operationalizations of this concept (Radulović, 2019). Bearing in mind advantages and disadvantages of different approaches to understanding and measuring cultural capital and following the line of some previous studies, the cultural capital in this research was operationalized through parents' education (Bourdieu & Boltanski, 1981; Kraaykamp & van Eijck, 2010; Stanojević, 2013), as a form of institutionalized cultural capital, as well as through cultural consumption (Merolla & Jackson 2014; Huang & Liang, 2016; Radulović, Malinić, & Gundogan 2017; Radulović, 2019), which seems to connect the elements of objectified and embodied cultural capital. To be more precise, in this paper cultural capital was calculated as factor gained on the education of both parents and cultural consumption which refers to: the number of books per household, the number of visits to theatres in the previous year, the number of visits to museums, galleries and exhibitions and attendance at organized paid activities (foreign language schools, music schools, ballet schools, math schools, art schools, and regular sports training). Based on analyses of the principal axis factoring we determined 1 factor which explains the total of 32,84 % variance of used variables. From the Table 1 we can see that cultural capital is mostly saturated with the mother and father's education, and then cultural consumption, i.e. attendance at organized paid activities, the number of books per household, and the number of visits to theatres, museums, galleries and exhibitions.

Table 1. Cultural capital: factor loadings

Cultural Capital	Loadings
Education of mother	.684
Education of father	.627
Additional activities	.570
Home library	.523
Visits to theatre	.518
Visits to museums	.493

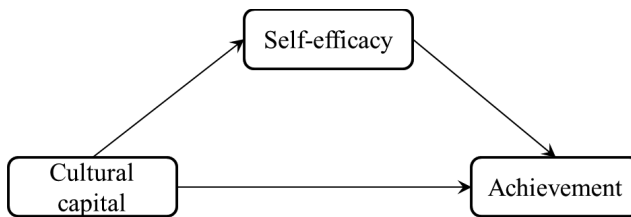
Academic self-efficacy. We implemented the translated and modified Self-Efficacy for Learning and Performance scale, which forms an integral part of the Motivated Strategies for Learning Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1993). The scale was modified so as to evaluate self-efficacy in mastering the school curriculum in general, and not in individual subjects. The scale has 8 items to which the respondents provided answers on a five-point

Likert scale⁹. The score on the scale represents the average value of the answers to the items, where a higher score denotes a higher degree of self-efficacy. The reliability of the original scale is $\alpha=.84$, and the modified one is $\alpha=.85$.

Analysis

In this exploratory research we tested simple mediation¹⁰ in order to explore the relationship between cultural capital and students' self-efficacy in predicting students' school achievement. In the structural model cultural capital serves as the predictor, while academic self-efficacy takes on the role of the mediator. The criterion is represented by the students' school achievement (see Figure 1).

Figure 1. Tested simple mediation model



Results

In the presentation of the results we firstly present relations between the analysed variables and afterwards discuss and interpret the tested simple mediation model.

Table 2. Pearson's correlation coefficients

	Cultural capital	Self-efficacy
Self-efficacy	.213**	1
Achievement	.352**	.576**

Note. ** Correlation is significant at the 0.01 level

From the matrix of intercorrelations presented in Table 2, it can be seen that the correlations between the all three variables are positive. Students school achievement is increased with the increase of their self-efficacy and cultural capital, but achievement is more strongly related to self-efficacy, as an individual psychological variable, than to cultural capital, as structural variable. Students with higher cultural capital have higher self-efficacy in school, although these two variables share only 4% of variance.

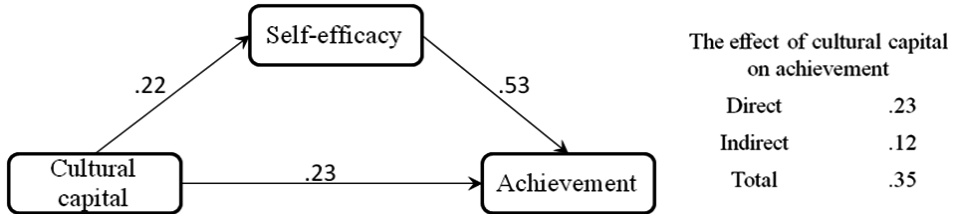
Figure 2 presents the tested simple mediation model with shown standardised coefficients. The percentage of the explained variance of the

9 The examples of modified items: „I'm confident I can understand the most complex material presented by the teachers“, „I'm certain I can master the skills being taught in school “.

10 Hayes' Process Macro for SPSS was used (Hayes, 2017).

students' achievement with cultural capital as predictor and self-efficacy as a mediator amounts to 38,6% ($F(2, 503) = 157,9, p < .001$).

Figure 2. Simple mediation model with significant standardized weights



From the presented model it can be seen that cultural capital has a direct effect on achievement ($\beta = .23, t = 6.53, p < .001$) in context of students' self-efficacy. Also, cultural capital has effect on students' sense of self-efficacy ($\beta = .22, t = 5.09, p < .001$), while self-efficacy effects students' achievement ($\beta = .53, t = 14.68, p < .001$). Total effect of cultural capital ($\beta = .35, t = 8.39, p < .001$), in addition to mentioned direct effect, includes indirect one that contributes to higher achievement through the sense of self-efficacy ($\beta = .12$)¹¹. In the field of education, it could be argued that the students' cultural capital to certain extent represents the basis for the development of sense of efficacy which in turn stimulates higher achievement.

Discussion

The research was carried out with the aim of answering two questions. The first question referred to whether the effect of cultural capital on students' achievement is mediated by their self-efficacy. Secondly, we wanted to test whether within the context of students' self-efficacy, cultural capital maintains a direct effect on achievement. In order to answer to these questions, we analysed mediation effect of self-efficacy in simple mediation model where cultural capital was predictor variable and achievement criteria.

Generally speaking, our results indicate that cultural capital and self-efficacy both effect students' achievement. Once again it is shown that self-efficacy is salient predictor of school achievement (Bandura, 1982; Zimmerman, Bandura, & Martinez-Pons, 1992). Regarding cultural capital, findings are in line with relevant theoretical assumptions (Bourdieu & Passeron, 1990) and previous sociological research (Andersen & Hansen, 2012; Jæger, 2009; Roscigno & Ainsworth-Darnell, 1999; Radulović, 2019), which indicate that students with higher cultural capital have more opportunity to attain higher school

11 The indirect effect of cultural capital on students' achievement represents a product of multiplication of two direct effects: the effect of cultural capital on self-efficacy and the effect of self-efficacy on achievement.

achievement. In addition, this was confirmed in different international research studies in education, such as TIMSS and PISA (Bodovski, Jeon, & Byun, 2017; Huang & Liang, 2016; Radulović, Malinić, & Gundogan, 2017; Tan, 2015). However, our research makes an additional contribution to understanding the relation between cultural capital and students' achievement, because it sheds light on the path through which cultural capital effects achievement within the context of students' self-efficacy.

The first significant finding in this research refers to the fact that part of the effect of cultural capital on educational achievement is mediated by students' self-efficacy. The link between self-efficacy and achievement was also confirmed in previous studies (Caprara *et al.*, 2011; Usher & Pajares, 2008). Students with a higher degree of self-efficacy invest greater effort, will and energy in solving tasks and approach them more thoroughly and, furthermore, do not give up when faced with any obstacles in their way (Bandura, 1982; Schunk, 1995). Sense of self-efficacy is developed on the basis of personal experience of success in completing tasks, which includes the experience of feedback which students get from their teachers and parents. If we assume that schools value students who possess high cultural capital, we can in turn expect that teachers will, on that basis, differentiate their feedbacks. This means that students with higher cultural capital will be getting more constructive and positive feedbacks, which will further build their levels of self-efficacy. In other words, cultural capital determines the form of feedback which students may be given in the educational context, which then effects the development of their sense of self-efficacy and subsequently achievement.

The second significant finding refers to cultural capital, as the predictor, maintaining a direct effect on school achievement even when the selected psychological variable is included in the model. This means that the contribution of cultural capital to students' achievement cannot be fully explained by self-efficacy as individual psychological characteristic. While previous studies showed that cultural practices and consumption in the family, as well as parents' education effect students' achievement (Bodovski, Jeon, & Byun, 2017; Huang & Liang, 2016; Merolla & Jackson, 2014), on the basis of our findings we may argue that, to some extent, they do so independently of students' beliefs in their own abilities and their experiences of being able to master and successfully complete school tasks.

Conclusions and implications

Our research results contribute to the corpus of studies which show the importance of cultural capital to students' academic achievement. Based on our results, we can conclude that cultural capital directly contributes to students' achievement, but also indirectly through their sense of self-efficacy.

Since cultural capital is determined by social structure and influences school achievement independently of the researched psychological

characteristic, it is justified to conclude that a change in the whole society is needed for the sake of achieving equality in education. However, it could be assumed that certain practices on the level of the education system could contribute to greater parity in education. In that regard, it is important that educational policy-makers and school practitioners reconsider the ways in which certain teaching content, forms of teaching, as well as the evaluation of students through various grading practices could work to the benefit of one group of students more than others. For instance, when designing curriculum, educational policy-makers should keep in mind that insistence on the use of formal language and knowledge of legitimate culture better suits students with high cultural capital.

The mediating role of the students' self-efficacy in the tested model suggests that it is important to direct attention towards strengthening students' beliefs in their own abilities and their conviction that when faced with various obligations and tasks they can be successful. One of the ways to achieve that is through the provision of adequate, direct and concrete feedback which includes clear directions for students' further progress. That implies the need to empower teachers to provide formative assessment. Hence, teachers need to be provided with specific pedagogical knowledge and skills about the ways, significance and effects of applying formative assessment in teaching practice. The promotion of self-efficacy is particularly important in the population of students with low cultural capital.

One of the potential limitations of the conducted research may lie in the operationalisation of the analysed variables. Namely, in this paper a specific operationalisation of cultural capital was chosen, hence the question remains open as to what the conclusions would be if a different approach to operationalisation were chosen, such as the "activation approach" (Lareau & Weininger, 2003).

The question remains as to how cultural capital would contribute to the explanation of students' achievement if some other individual students' psychological characteristics were included in the model, or different variables served as the mediators. Also, considering that all of the respondents were students of the same age (around 14 years old), the question arises as to what the findings would be if other age groups were included in the research, i.e. may it be said that the relationship between the tested variables would be the same in other educational cycles (for instance, the lower grades of primary school or secondary school). This is particularly important if we take into consideration the findings from previous studies which claim that the relationship between self-efficacy and achievement is not the same at different educational levels (Caprara *et al.*, 2011). The aforementioned issues could serve as the incentive for future research in this field.

Disclosure statement. No potential conflict of interest was reported by the authors.

Literature

- Andersen, Patrick Lie and Hansen, Marianne Nordli. 2012. Class and Cultural Capital — The Case of Class Inequality in Educational Performance. *European Sociological Review*, 28(5): 607–621.
- Bandura, Albert. 1977. Self-efficacy: Toward a unifying theory of behaviour change, *Psychological Review*, 84: 191–215.
- Bandura, Albert. 1982. Self-Efficacy Mechanism in Human Agency. *American Psychologist*, 37(2): 122–147.
- Bandura, Albert. 1997. *Self-efficacy: The Exercise of Control*. New York: W. H. Freeman.
- Bandura, Albert, Barbaranelli, Claudio, Caprara, Gian Vittorio and Pastorelli, Concetta. 1996. Multifaceted Impact of Self-Efficacy Beliefs on Academic Functioning, *Child Development*, 67: 1206–1222
- Bodovski, Katerina, Haram Jeon and Soo-yong, Byun. 2017. Cultural capital and academic achievement in post-socialist Eastern Europe. *British Journal of Sociology of Education*. 38(6): 887–907.
- Bong, Mimi and Skaalvik, Einar. 2003. Academic Self-Concept and Self-Efficacy: How Different Are They Really? *Educational Psychology Review*, 15(1): 1–40.
- Bourdieu, Pierre and Passeron, Jean-Claude. 1990. *Reproduction in Education, Society and Culture* London: Sage.
- Bourdieu, Pierre. 1986. The forms of capital. In: J. Richardson (ed.), *Handbook of Theory and Research for the Sociology of Education* (pp. 241–258). New York: Greenwood Press.
- Bourdieu, Pierre and Boltanski, Luc. 1981. The Education System and the Economy: Titles and Jobs. In C. Lemert (eds.), *Rupture and Renewal Since 1968* (pp. 141–152). New York: Columbia University Press.
- Bourdieu, Pierre. 1984. *Distinction: A social Critique of the Judgement of Taste*. Cambridge: Harvard University Press.
- Caprara, Gian Vittorio, Vecchione, Michele, Alessandri, Guido, Gerbino, Maria and Barbaranelli, Claudio. 2011. The contribution of personality traits and self-efficacy beliefs to academic achievement: A longitudinal study, *British Journal of Educational Psychology*, 81: 78–96
- Chiu, Ming Ming and Xihua, Zeng. 2008. Family and motivation effects on mathematics achievement: Analyses of students in 41 countries. *Learning and Instruction*, 18(4): 321–336.
- Cvetičanin, Predrag. 2012. *Social and cultural capital in Serbia*. Niš: Sven.
- DiMaggio, Paul. 1982. Cultural Capital and School Success: The Impact of Status Culture Participation on the Grade of U.S. High School Students. *American Sociological Review*, 47(2): 189–201.
- Doménech-Betoret, Fernando, Abellán-Roselló, Laura and Gómez-Artiga, Amparo. 2017. Self-Efficacy, Satisfaction, and Academic Achievement: The Mediator Role of Students' Expectancy-Value Beliefs. *Frontiers in Psychology*, 8: 1193. doi: 10.3389/fpsyg.2017.01193

- Džinović, Vladimir, Đević, Rajka and Đerić, Ivana. 2019. The role of self-control, self-efficacy, metacognition and motivation in predicting school achievement. *Psihologija*, 52(1): 35–52. doi: <https://doi.org/10.2298/PSI180202027D>
- Hayes, Andrew. 2017. *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.
- Huang, Haigen and Liang, Guodong. 2016. Parental cultural capital and student school performance in mathematics and science across nations. *The Journal of Educational Research*, 109(3): 286–295. <http://dx.doi.org/10.1080/00220671.2014.946122>
- Jaeger, Mads Meier. 2011. Does Cultural Capital Really Affect Academic Achievement? New Evidence from Combined Sibling and Panel Data. *Sociology of Education*, 84(4): 281–298.
- Jaeger, Mads Meier. 2009. Equal Access but Unequal Outcomes: Cultural Capital and Educational Choice in a Meritocratic Society. *Social Forces*, 87(4): 1943–1971.
- Jenkins, Richard. 2006. *Pierre Bourdieu*. London and New York: Routledge.
- Köseoğlu, Yaman. 2015. Self-Efficacy and Academic Achievement – A Case From Turkey, *Journal of Education and Practice*, 6(29): 131–141.
- Kraaykamp, Gerbert and Eijck, Koen. 2010. The Intergenerational Reproduction of Cultural Capital: A Threefold Perspective. *Social Forces*, 89(1): 209–231.
- Lareau, Annette and Weininger, Elliot. 2003. Cultural Capital in Educational Research: A Critical Assessment. *Theory and Society*, 32(5/6): 567–606.
- Marić, Mia, Rodić Lukić, Vesna and Štrangarić, Snežana. 2018. Model uticaja kulturnog kapitala i individualnih motivacionih činilaca na ključne kompetencije učenika, *Primenjena psihologija*, 11(1): 9–26.
- Marteleto, Leticia and Andrade, Fernando. 2013. The Educational Achievement of Brazilian Adolescents: Cultural Capital and the Interaction between Families and Schools. *Sociology of Education*, 87(1): 16–35.
- Merolla, David and Jackson, Omari. 2014. Understanding Differences in College Enrollment: Race, Class and Cultural Capital. *Race and Social Problems*, 6(3): 280–292.
- Pintrich, Paul, Smith, David, Garcia, Teresa and Mckeachie, Wilbert. 1993. Reliability and predictive validity of the motivated strategies for learning questionnaire (MSLQ). *Educational and Psychological Measurement*, 53(3): 801–813.
- Radulović, Mladen, Malinić, Dušica and Gundogan, Dragana. 2017. Povezanost kulturnog kapitala i opremljenosti škole sa postignućem učenika. In M. Marušić, N. Gutvajn & I. Jakšić (Eds.), *TIMSS 2015 u Srbiji* (129–149), Beograd: Institut za pedagoška istraživanja.
- Radulović, Mladen. 2019. Značaj kulturnog kapitala za obrazovni uspeh i formiranje obrazovnih aspiracija učenika u Srbiji (*Doctoral dissertation*), Univerzitet u Beogradu-Filozofski fakultet.
- Roscigno, Vincent and Ainsworth-Darnell, James. 1999. Cultural Capital, and Educational Resources: Persistent Inequalities and Achievement Returns. *Sociology of Education*, 72: 158–178.

- Schunk, Dale. 1995. Development of Strategic Competence Through Self-Regulation of Attributions, *Paper presented at the Annual Meeting of the American Psychological Association* (New York, NY, August 1995). ERIC ED 391 821 retrieved from <https://files.eric.ed.gov/fulltext/ED391821.pdf> September, 12.
- Spasić, Ivana. 2004. *Sociologije svakodnevnog života*. Beograd: Zavod za udžbenike i nastavna sredstva.
- Stanojević, Dragan. 2013. Međugeneracijska obrazovna pokretljivost u Srbiji u XX veku. In M. Lazić & S. Cvejić (Eds.), *Promene osnovnih struktura društva Srbije u periodu ubrzane transformacije* (pp. 119–139), Beograd: ISI FF.
- Tan, Cheng Young. 2015. The contribution of cultural capital to students' mathematics achievement in medium and high socioeconomic gradient economies. *British Educational Research Journal*, 41(6): 1050–1067.
- Tavakoli, Farzaneh Hassanzadeh, Pahlavannezhad, Mohammad Reza and Ghonsooly, Behzad. 2017. A Mixed Methods Study of the Relationship Between Cultural Capital of Senior High School English Teachers and Their Self-Efficacy in Iran's English Language Classrooms. *Sage Open*, 7(3), DOI: 10.1177/2158244017719932
- Usher, Ellen and Pajares, Frank. 2008. Sources of self-efficacy in school: critical review of the literature and future directions. *Review of Educational Research*. 78(4): 751–796. 10.3102/003465430832145
- Zajacova, Anna, Lynch, Scott and Espenshade, Thomas. 2005. Self-efficacy, stress, and academic success in college. *Research in higher education*, 46(6): 677–706.
- Zimmerman, Barry J. 2000. Self-Efficacy: An Essential Motive to Learn, *Contemporary Educational Psychology*, 25: 82–91.
- Zimmerman, Barry J., Bandura, Albert and Martinez-Pons, Manuel. 1992. Self motivation for academic attainment: The role of self efficacy beliefs and personal goal setting. *American Educational Research Journal*, 29(3): 663–676.