

Особенности познавательной деятельности современных детей, подростков и молодежи в контексте проблем образования

УДК 159.9

**EDN XSYOMS** 

https://www.doi.org/10.33910/2686-9527-2024-6-4-523-533

Research article

# The level of parents' education as a factor of students' academic achievements: A systematic literature review

V. N. Panferov¹, L. A. Tsvetkova <sup>⊠1, 2, 3</sup>

Herzen State Pedagogical University of Russia, 48 Moika Emb., Saint Petersburg 191186, Russia
 Higher School of Economics in Saint Petersburg, 16 Soyuza Pechatnikov Str., Saint Petersburg 190008, Russia
 Russian Academy of Education, 8 Pogodinskaya Str., Moscow 119121, Russia

*For citation:* Panferov, V. N., Tsvetkova, L. A. (2024) The level of parents' education as a factor of students' academic achievements: A systematic literature review. *Psychology in Education*, vol. 6, no. 4, pp. 523–533. <a href="https://www.doi.org/10.33910/2686-9527-2024-6-4-523-533">https://www.doi.org/10.33910/2686-9527-2024-6-4-523-533</a> EDN XSYOMS

Received 24 October 2024; reviewed 1 November 2024; accepted 1 November 2024.

*Funding:* The research was supported by an internal grant of the Herzen State Pedagogical University of Russia (project No. 23VG).

*Copyright:* © V. N. Panferov, L. A. Tsvetkova (2024). Published by Herzen State Pedagogical University of Russia. Open access under <u>CC BY-NC License 4.0</u>.

### Abstract

Introduction. Today, there is irrefutable evidence that there are direct correlations between the level of parents' education and academic achievements of their children. However, the underlying psychological mechanisms are described fragmentally, despite their importance in terms of the efforts aimed at improving the educational level of parents in order to enhance academic achievements of their children. Our study seeks to summarize information about factors that determine the contribution of parents' educational level to their children's academic achievements.

Materials and Methods. The sources for systematic review were selected with the key phrases 'education of parents' and 'academic achievements' / 'academic performance' in the databases eLibrary, Google Scholar and PubMed according to the following criteria: 1) there is access to the full-text version or a detailed abstract; 2) the article contains results of an empirical or secondary (meta-analytical) study; 3) the language of publication is either Russian or English; and 4) the article is a peer-reviewed scientific publication. The initial data set contained 452 articles, but only 39 were included in the review.

Results. We identified three groups of factors that may determine the contribution of parents' educational level to students' academic achievements: cognitive and non-cognitive characteristics of students and their parents (intellectual, motivational, regulatory, reflective, etc.); characteristics of child-parent relations (academic involvement of parents, their expectations regarding the academic achievements of children, etc.); and the social status of the family, reflecting the family's position in the system of social relations (income level, belonging to a racial or ethnic majority/minority, etc.).

Conclusions. Future research could involve empirical verification of the hypothesis that these factors mediate the relationships between parents' education and their children's academic achievements in the context of studying the trajectories of educational socialization at different educational levels. The results of such verification will be significant for improving the effectiveness of educational work with parents aimed at promoting the academic achievements of students.

*Keywords:* academic achievements, preschoolers, school students, university students, educational level of parents, systematic literature review

### Научная статья

# Уровень образования родителей как фактор академических достижений обучающихся: результаты систематического обзора литературы

В. Н. Панферов  $^{1}$ , Л. А. Цветкова  $^{\boxtimes 1, \, 2, \, 3}$ 

<sup>1</sup> Российский государственный педагогический университет им. А. И. Герцена, 191186, Россия, г. Санкт-Петербург, наб. реки Мойки, д. 48

<sup>2</sup> Национальный исследовательский университет «Высшая школа экономики», Санкт-Петербургский филиал, 190008, Россия, г. Санкт-Петербург, ул. Союза Печатников, д. 16

<sup>3</sup> Российская академия образования, 119121, Россия, г. Москва, ул. Погодинская, д. 8

**Для цитирования:** Панферов, В. Н., Цветкова, Л. А. (2024) Уровень образования родителей как фактор академических достижений обучающихся: результаты систематического обзора литературы. *Психология человека в образовании*, т. 6, № 4, с. 523–533. <a href="https://www.doi.org/10.33910/2686-9527-2024-6-4-523-533">https://www.doi.org/10.33910/2686-9527-2024-6-4-523-533</a> EDN XSYOMS

Получена 24 октября 2024; прошла рецензирование 1 ноября 2024; принята 1 ноября 2024.

**Финансирование:** Исследование выполнено за счет внутреннего гранта РГПУ им. А. И. Герцена (проект № 23ВГ).

**Права:** © В. Н. Панферов, Л. А. Цветкова (2024). Опубликовано Российским государственным педагогическим университетом им. А. И. Герцена. Открытый доступ на условиях  $\underline{\text{лицензии CC BY-NC 4.0}}$ .

#### Аннотация

Введение. Сегодня имеются неопровержимые данные о том, что между уровнем образования родителей и академическими достижениями их детей существуют прямые взаимосвязи. Однако психологические механизмы, лежащие в их основе, описаны довольно фрагментарно, несмотря на то, что их учет важен при планировании и реализации работы, направленной на повышение образовательного уровня родителей в контексте содействия академическим успехам их детей. В связи с этим целью представленного исследования стало обобщение сведений о факторах, которые могут определять вклад уровня образования родителей в академические успехи обучающихся.

Материалы и методы. Использовался метод систематического обзора литературы, отбор источников осуществлялся по ключевым словосочетаниям «образование родителей» и «академические достижения» / «академическая успеваемость» ("education of parents" и "academic achievements" / "academic performance") в библиографических базах eLibrary, Google Scholar и PubMed по следующим критериям: 1) наличие доступа к полнотекстовой версии статьи или развернутой аннотации; 2) представленность в тексте результатов эмпирических или вторичных (метааналитических) исследований; 3) изложение материалов исследования на русском или английском языке; 4) публикация материалов исследования в рецензируемом научном издании. Первоначально массив данных включал 452 статьи, из которых соответствовали указанным критериям 39 источников. Эти статьи и были включены в обзор.

Результаты. Выделены три группы факторов, которые определяют вклад образовательного уровня родительской семьи в академические успехи обучающихся: когнитивные и некогнитивные особенности обучающихся и их родителей (интеллектуальные, мотивационные, регуляторные, рефлексивные и др.), характеристики детско-родительских отношений (академическая вовлеченность родителей, их ожидания в отношении академических успехов детей и др.) и социальный статус семьи, отражающий ее положение в системе социальных отношений (уровень дохода, принадлежность к расовым/ этническим группам большинства/меньшинства и др.).

Заключение. Перспективы исследования связаны с эмпирической проверкой гипотезы об опосредующем влиянии указанных факторов на взаимосвязи между уровнем образования родителей и академическими успехами их детей в контексте изучения траекторий образовательной социализации обучающихся на разных образовательных ступенях. Результаты представляются значимыми для повышения эффективности образовательной работы с родителями, направленной на содействие академическим успехам обучающихся.

**Ключевые слова:** академические достижения, дошкольники, школьники, студенты, образовательный уровень родителей, систематический обзор литературы

### Introduction

In recent decades, relationship between students' academic achievements and the level of parents' education has been subject to extensive studies and discussions in literature on psychology and pedagogy. It has been demonstrated that in every society for which data is currently available, the educational attainments of children, adolescents and young people positively correlate with their parents' education alongside other indicators of the family's socioeconomic status (Björklund, Salvanes 2011). Studies undertaken in different countries have described the level of parents' education as the most powerful contributor (compared to other parameters of the family's socioeconomic status) to children's academic performance (Ardila, Rosselli, Matute, Guajardo 2005; Waters et al. 2021). In particular, it outweighs the level of the family's income (O'Connell 2019).

Consequently, most countries currently view the level of parental education as the key element of the family's cultural capital (Jæger 2011; Yang 2003). As it is justly noted, the level of parental education is one of the most stable features of the family's education background (Augustine 2017), which has a major bearing on the quality of home learning environment and on parents' involvement in children's schooling. Children whose parents have a higher level of education definitely show higher educational achievements more often than those whose parents have a low or medium level of education. This trend persists through all stages of education, from primary (Waters et al. 2021) to secondary school (Bakar, Mamat, Ibrahim 2017), colleges (Assari 2019) and universities (Rodríguez-Hernández, Cascallar, Kyndt 2020).

The significance of parental education for children's academic outcomes drives educational policies in many countries that strive to promote the level of parental education by means of various psychological and pedagogical education opportunities and other forms of educational activities (O'Connell 2019; Rodríguez-Hernández, Cascallar, Kyndt 2020, etc.). Empirical studies of the past decade, however, conclude that the data characterizing relationship between academic attainments

in students and the level of parental education is much more complex than it seems, and that a whole array of factors may mediate this relationship (Yang Hansen, Gustafsson 2016). Studies backed by PISA data, for instance, show that the indicators of the family's cultural capital have but moderate explanatory power and may suggest that it would be more reasonable to interpret the impact produced by the level of parental education on children's academic achievements as indirect one, mediated by the presence of cause-and-effect mechanisms of different kind (Barone 2006). In our research, we therefore undertake a systematic analysis of empirical studies into the relationship between the academic attainments of students at different levels of education (schools, colleges and universities) and parents' education level in order to produce a summary of the factors that may determine the contribution of parental education to children's academic performance.

### Materials and methods

Our study uses the method of systematic review of the sources concerned with the correlations between the level of parental education and children's academic achievements. Our study covered research papers published between 2000 and August 2024 in peer-reviewed scientific publications indexed in bibliographic databases such as eLibrary, Google Scholar and PubMed. They presented the results of empirical or secondary (meta-analytical) studies in Russian or English. We used search operators and search queries with the phrases 'parental education' and 'academic achievements' / 'academic performance'). A total of 452 articles were analysed. Full-text works and papers with a detailed abstract describing research materials and methodology were selected. Thirty-nine sources ultimately qualified for our systematic review.

### **Results**

Our analysis identified three groups of factors that can be seen as potential moderators of the relationship between the level of parental education and children's academic achievements. They include students' cognitive and non-cognitive characteristics (individual

variables), characteristics of child-parent relations (social-psychological variables) and other characteristics of the family's social status apart from the level of parental education (social variables).

## Cognitive and non-cognitive characteristics of students and their parents

Academic achievements are traditionally linked to cognitive abilities. Empirical data demonstrates that children whose parents have higher education, on average, perform better in cognitive tests than those whose parents have no higher education. Researchers trace this difference back to the fact that better educated parents create more favourable conditions for their children's cognitive development. They do so by means of more intensive cognitive stimulation (Conger, Conger, Martin 2010), such as helping their children expand their vocabulary and build more complex speech structures (Duncan, Magnuson 2012) by using a greater number of abstract words and more advanced syntax, and engaging them in decontextualized discourse. When combined, these efforts serve as essential prerequisites for the development of cognitive and language skills in children (Gustafsson, Yang Hansen, Rosén 2013). It is noted that the contribution of parental education to children's academic outcomes may stem from the cognitive abilities of parents themselves, which, in their turn, act as significant determinants of their education level, since it was shown that such contribution is substantially reduced when considering their ability (Marks, O'Connell 2021). A longitudinal study carried out by American researchers investigated more than 5,000 cases, revealing that associations between one's cognition (in particular, characteristics of language function, executive function and, to a lesser extent, memory) and the level of parent's education remain positive throughout one's lifetime, but are slightly reduced in later life in contrast to other parameters of the family's socioeconomic status, whose contribution to one's midlife cognition becomes statistically nonsignificant (Greenfield, Moorman 2019). Higher sensitivity of children's language functions (as far as the level of parental education is concerned) compared to other aspects of their cognitive

potential was also discovered by a study undertaken by Chinese researchers, who scrutinized the data of over 200,000 students from 78 independent samples (Liu, Peng, Luo 2020).

Among the noncognitive individual characteristics of children that can be viewed as potential moderators of the associations between parental education level and children's academic achievements are the characteristics of the predominant emotional background and various self-efficiency aspects. Parents with higher education show lower depression indicators (Conger, Conger, Martin 2010), which leads to a more favourable emotional background in the family. American researchers have established that parental education is also associated with a lower likelihood of their children developing a depressive background (Assari et al. 2020). Besides, some data indicates that schoolchildren whose parents have higher education set more ambitious educational goals for themselves (Iwaniec 2018) and their views on their own academic abilities and capacity to manage their studies are more positive (Davis-Kean 2005; Eccles 2005).

### Characteristics of child-parent relations (social-psychological variables)

Empirical evidence suggests that the effect of parental education level on children's academic achievements may be mediated by a difference in what parents expect from their children's academic performance and whether they are eager to engage in their schooling.

Less educated parents are more likely to have lower expectations of their children's studies compared to better educated parents (Carolan, Wasserman 2015; Dubow, Boxer, Huesmann 2009; Eccles 2007; Gustafsson, Yang Hansen, Rosén 2013; Poon 2020). Furthermore, less educated parents are commonly less inclined to take an active part in their children's studies both at home and in school (Cheadle, Amato 2011; Roksa, Potter 2011). Meanwhile, parents with a higher level of education tend to use more effective practices to support the learning activity of their children (Dumais, Kessinger, Ghosh 2012; Englund, Luckner, Whaley, Egeland 2004; Fekonja-Peklaj, Ljubica Marjanovič-Umek, Kranjc 2010), thus fostering their academic performance. In particular, they engage in joint discussions of school matters, take part in school governance and events, read books together, emphasize the importance of education, help their children with homework, communicate with teachers, etc. (Tan, Lyu, Peng 2019).

A whole range of studies, however, underline that such associations are non-linear.

It was shown, for instance, that during COVID-19 lockdowns schoolchildren's academic performance was determined not by their parents' education level but by the amount of time parents put into supporting their children with schooling (regardless of their level of education), helping them with home assignments and time management and providing them with the Internet access (Bansak, Starr 2021). A meta-analysis of studies into the academic activities of immigrant students showed that parental involvement in the learning process had a greater bearing on children's academic performance than the level of parents' education (Kim, Mok, Seidel 2020). A longitudinal study involving 167 children whose academic achievements were assessed in preschool and primary school found that the contribution of the level of mothers' education to children's academic performance was mediated by maternal involvement in children's studies: differences in the performance of children with better and less educated mothers were significantly smaller with a high level of maternal involvement. It was shown that although children with less educated mothers had less noticeable academic achievements at baseline (in preschool) than those born to better educated parents, this difference diminished over time given families' active input into the learning process (Dearing et al. 2004; Dearing, Kreider, Simpkins, Weiss 2006). These findings were confirmed by an empirical study involving older respondents (schoolchildren), which concluded that the moderating contribution of parental involvement in the relationship between the level of parental education and children's academic achievements was the most strongly expressed in students in later rather than earlier school years (Roksa, Potter 2011).

Similar results were obtained by another longitudinal study which covered more than 15,000 American high school students and showed that parents' involvement in school life is especially useful to young people from families with a low level of education. Parental

involvement in children's studies, to a lesser extent, mediates the academic achievements of young people from families with a high educational level, who provide more favourable conditions for academic socialization from the outset (Benner, Boyle, Sadler 2016). Other studies also confirm a more noticeable positive effect of active parental involvement in children's studies on their academic attainments, which is typical of families with a low level of education (Benner, Boyle, Sadler 2016; Kim, Schneider 2005). There is some evidence that among the higher parental education group, parents' academic involvement was linked to a lower number of behavioural problems in children, which, in turn, was related to academic achievement and then aspirations. Meanwhile, for the lower parental education group, parents' academic involvement was related to children's aspirations but not behaviour or achievement (Hill et al. 2004), which can also explain the above differences.

### Characteristics of the family's social status (social variables)

As far as the analysis of other parameters of the socioeconomic status is concerned, the study of parental education level as a determinant of children's academic attainments suggests that the contribution of the family's education level may correlate with their income level, which is linked to parents' professional status and belonging to a specific racial or ethnic group.

Studies show that a higher level of parents' education tends to be associated with a better quality of life. It can produce an indirect impact on children's academic achievements, since parents' financial distress negatively correlates with cognitive development in childhood (Conger, Conger, Martin 2010). Besides, family quality of life is related positively to children's health and negatively to their propensity for substance abuse, which also affects academic achievements at different stages of education (Assari 2020; Gerra et al. 2020; Mikkonen, Remes, Moustgaard, Martikainen 2020). An analysis of the academic achievements of fourthgraders from 37 countries involved in the PIRLS and TIMSS studies revealed that the association between parental education and schoolchildren's performance varied depending on the level of the country's social and economic development and was the most obvious in states with a high level of such development (Yang Hansen, Gustafsson 2016). It was also established that the family's high and medium socioeconomic level had a greater bearing on children's performance than the low one, and parents' education affected children's school progress more than their profession (Farooq, Chaudhry, Shafiq, Berhanu 2011).

Empirical studies involving children of different racial and ethnic background attest that the family's socioeconomic status, in particular parents' education and income level, relate differently to children's academic achievements depending on their racial and ethnic background (Davis-Kean 2005). An American sample indicates that family income and parents' education level relate differently to children's academic development as far as racial background is concerned. The Black-White gap narrowed (with Black children's skills growing faster) at higher levels of income but widened (with Black children's skills developing more slowly) at higher levels of parental education. The bottom line is that notwithstanding performance advantages at the time of kindergarten entry, great baseline disparities implied that Black students from higher income families underperformed their White counterparts in middle school, while Black students with better-educated parents consistently lagged behind their White peers (Henry, Betancur Cortés, Votruba-Drzal 2020).

A study involving students of American colleges demonstrates that the impact of the level of parental education on students' performance is mediated by the social status of the ethnic groups to which they belong. In particular, parental education level has a smaller positive effect on the grade point average of Hispanic and Black youth than non-Hispanic White youth as well as non-Hispanic Black college students than non-Hispanic White ones (Assari 2019; Assari et al. 2021). It is thus stated that the associations between the level of parental education and children's performance are mediated by the family's belonging to an ethnic majority or minority, a phenomenon described by the term 'the diminished return of parental education. This effect has been observed in many empirical studies (Boyce

et al. 2020; Hosokawa, Katsura 2017; Hung et al. 2020). It is emphasized that such effect may be due not only to racial/ethnic identity, but also to contextual factors which are commonly linked to marginalization and poverty (segregation, poverty concentration as well as unrest and insecurity in the neighbourhood) (Assari et al. 2020).

### Discussion

Our systematic review of the studies concerned with correlations between the level of parental education and children's academic achievements has identified a variety of different factors as their potential moderators. They can be classified into three groups: individual, social-psychological and social variables. Our review has revealed nonlinear associations between children's academic achievements and the level of their parents' education, which is apparently due to children's cognitive and noncognitive characteristics, child-parent relations as well as the family's position in the system of social relations.

Our findings indicate that positive correlations between the level of parental education and children's academic performance cannot serve as evidence that children born to better educated parents, on average, study slightly better than their counterparts from less educated families precisely due to their parents' higher level of education. The family's education level is associated with a broad range of psychological characteristics and appears to contribute to academic performance not in its own right, but by way of indirect support of children's academic achievements through parents' expectations of these achievements and cognitive stimulation provided by parents both at home and outside (Davis-Kean, Tighe, Waters 2021; Dearing et al. 2004; Dearing, Kreider, Simpkins, Weiss 2006; Englund, Luckner, Whaley, Egeland 2004; Fekonja-Peklaj, Ljubica Marjanovič-Umek, Kranjc 2010). In the meantime, parents with a higher level of education are capable of furnishing their children with more resources, which is also beneficial for their academic achievements (Hosokawa, Katsura 2017). This can be observed both when comparing academic achievements of children from families with a different social status within a country and when comparing the scale of the effect produced by parental education level on children's academic achievements in countries with various levels of economic growth (Yang Hansen, Gustafsson 2016). In this regard, it is not only economic resources themselves but also parents' lower financial distress that makes them more involved in their children's schooling (Conger, Conger, Martin 2010) as well as the lower level of social stress, which brings the likelihood of the 'diminished return of parental education' down to the minimum (Assari et al. 2020; Hosokawa, Katsura 2017).

The above summary concludes that individual, social-psychological and social factors which potentially moderate the associations between the level of parental education and children's academic achievements may, in their turn, be closely interconnected. They ensure the poly-determined nature of children's educational socialization models applied by parents. One can assume that various characteristics of parents, such as their own dispositions and skills, education, belonging to a specific cultural group, occupation, income, etc., affect the level of their children's education, primarily finding their way into parents' own commitments and behaviour. Parents, in their turn, contribute to children's development as personalities and academic subjects, determining their involvement in various forms of educational activities, which over time contribute to students' academic attainments, with the correlation between these variables at different stages of education likely to vary rather significantly. This is implied by some interesting findings obtained by researchers from Finland, who established that mothers' education level has a greater influence on children's academic performance in early years, whereas that of fathers does so in early adulthood (Erola, Jalonen, Lehti 2016). This supposition requires a thorough empirical study capable of producing findings that will be in particularly high demand in psychological and pedagogical work focused on enhancing the efficiency of educational work with parents, which is extensively undertaken in the form of educational events and integrated in many programmes of secondary, secondary vocational and higher education. Regrettably, our analysis has revealed no empirical studies into these aspects which would

involve Russian samples and be based on any convincing methodology. Given the data on significant sociocultural mediation of the associations between the level of parental education and children's academic achievements, it is possible to apply the trends highlighted in this paper to Russian educational practice, though with a certain degree of caution.

Taking into consideration the empirical data presented in scientific literature, one can foresee a number of potential challenges that such empirical study may face: this includes varying approaches to the evaluation of the level of parental education (from documenting official education records to various forms of nonformal and informal learning undertaken by parents); the diversity of interpretations and criteria of children's 'academic achievements' (from documenting academic performance to documenting the stage at which formal education was completed); the importance of taking into account the sociocultural context in which families involved as respondents function as well as the need to involve in the study the entire family and not just mothers, who are commonly much more eager than fathers and other relatives of school and university students to take part in studies, etc. Notwithstanding these difficulties, studies elucidating the psychological mechanisms mediating the relationship between the level of parental education and children's academic performance seem rather promising given the objectives set by the modern Russian society for the education system.

### **Conclusions**

Our systematic review of publications dealing with the associations between the level of parental education and children's academic achievements has identified three groups of factors: cognitive and non-cognitive characteristics of students and their parents, characteristics of child–parent relations and the family's social status, which is reflective of its position in the system of social relations. These factors should be taken into account as part of studies examining students' educational socialization trajectories at different educational stages when analysing the evaluation of parental contribution to the academic achievements of children, adolescents and young people.

### **Conflict of Interest**

The authors declare that there is no conflict of interest, either existing or potential.

### Конфликт интересов

Авторы заявляют об отсутствии потенциального или явного конфликта интересов.

### **Author Contributions**

The authors have made an equal contribution to the preparation of the manuscript of the article.

### Вклад авторов

Авторы внесли равный вклад в подготовку рукописи статьи.

### References

- Ardila, A., Rosselli, M., Matute, E., Guajardo, S. (2005) The influence of the parents' educational level on the development of executive functions. *Developmental Neuropsychology*, vol. 28, no. 1, pp. 539–560. <a href="https://doi.org/10.1207/s15326942dn2801\_5">https://doi.org/10.1207/s15326942dn2801\_5</a> (In English)
- Assari, S. (2019) Parental educational attainment and academic performance of American college students; Blacks' diminished returns. *Journal of Health Economics and Development*, vol. 1, no. 1, pp. 21–31. PMID: <u>31372601</u> (In English)
- Assari, S. (2020) Parental education and youth inhibitory control in the adolescent brain cognitive development (ABCD) study: Blacks' diminished returns. *Brain Sciences*, vol. 10, no. 5, article 312. <a href="https://doi.org/10.3390/brainsci10050312">https://doi.org/10.3390/brainsci10050312</a> (In English)
- Assari, S., Boyce, Sh., Bazargan, M., Caldwell, C. H. (2020) African Americans' diminished returns of parental education on adolescents' depression and suicide in the adolescent brain cognitive development (ABCD) study. *European Journal of Investigation in Health, Psychology and Education*, vol. 10, no. 2, pp. 656–668. <a href="https://doi.org/10.3390/ejihpe10020048">https://doi.org/10.3390/ejihpe10020048</a> (In English)
- Assari, S., Boyce, Sh., Bazargan, M. et al. (2020) Place-based diminished returns of parental educational attainment on school performance of non-hispanic white youth. *Frontiers in Education*, vol. 5, article 30. <a href="https://doi.org/10.3389/feduc.2020.00030">https://doi.org/10.3389/feduc.2020.00030</a> (In English)
- Assari, S., Mardani, A., Maleki, M. et al. (2021) Black-white achievement gap: Role of race, school urbanity, and parental education. *Pediatric Health, Medicine and Therapeutics*, vol. 12, pp. 1–11. <a href="https://doi.org/10.2147/PHMT.S238877">https://doi.org/10.2147/PHMT.S238877</a> (In English)
- Augustine, J. M. (2017) Increased educational attainment among U. S. mothers and their children's academic expectations. *Research in Social Stratification and Mobility*, vol. 52, pp. 15–25. <a href="https://doi.org/10.1016/j.rssm.2017.08.001">https://doi.org/10.1016/j.rssm.2017.08.001</a> (In English)
- Bakar, N. A., Mamat, I., Ibrahim, M. (2017) Influence of parental education on academic performance of secondary school students in Kuala-Terengganu. *International Journal of Academic Research in Business and Social Sciences*, vol. 7, no. 8, pp. 296–304. <a href="https://dx.doi.org/10.6007/IJARBSS/v7-i8/3230">https://dx.doi.org/10.6007/IJARBSS/v7-i8/3230</a> (In English)
- Bansak, C., Starr, M. (2021) Covid-19 shocks to education supply: How 200,000 U.S. households dealt with the sudden shift to distance learning. *Review of Economics of the Household*, vol. 19, pp. 63–90. <a href="https://doi.org/10.1007/s11150-020-09540-9">https://doi.org/10.1007/s11150-020-09540-9</a> (In English)
- Barone, C. (2006) Cultural capital, ambition and the explanation of inequalities in learning outcomes: A comparative analysis. *Sociology*, vol. 40, no. 6, pp. 1039–1058. <a href="https://doi.org/10.1177/0038038506069843">https://doi.org/10.1177/0038038506069843</a> (In English)
- Benner, A. D., Boyle, A. E. Sadler, S. (2016) Parental involvement and adolescents' educational success: The roles of prior achievement and socioeconomic status. *Journal of Youth and Adolescence*, vol. 45, pp. 1053–1064. <a href="https://doi.org/10.1007/s10964-016-0431-4">https://doi.org/10.1007/s10964-016-0431-4</a> (In English)
- Björklund, A., Salvanes, K. G. (2011) Education and family background: Mechanisms and policies. *Handbook of the Economics of Education*, vol. 3, pp. 201–247. <a href="https://doi.org/10.1016/B978-0-444-53429-3.00003-X">https://doi.org/10.1016/B978-0-444-53429-3.00003-X</a> (In English)
- Boyce, S., Bazargan, M., Caldwell, C. H. et al. (2020) Parental educational attainment and social environment of urban public schools in the U.S.: Blacks' diminished returns. *Children*, vol. 7, no. 5, article 44. <a href="https://doi.org/10.3390/children7050044">https://doi.org/10.3390/children7050044</a> (In English)
- Carolan, B. V., Wasserman, S. J. (2015) Does parenting style matter? Concerted cultivation, educational expectations, and the transmission of educational advantage. *Sociological Perspectives*, vol. 58, no. 2, pp. 168–186. <a href="https://doi.org/10.1177/0731121414562967">https://doi.org/10.1177/0731121414562967</a> (In English)

- Cheadle, J. E., Amato, P. R. (2011) A quantitative assessment of Lareau's qualitative conclusions about class, race, and parenting. *Journal of Family Issues*, vol. 32, no. 5, pp. 679–706. https://doi.org/10.1177/0192513X10386305 (In English)
- Conger, R. D., Conger, K. J., Martin, M. J. (2010) Socioeconomic status, family processes, and individual development. *Journal of Marriage and Family*, vol. 72, no. 3, pp. 685–704. <a href="https://doi.org/10.1111/j.1741-3737.2010.00725.x">https://doi.org/10.1111/j.1741-3737.2010.00725.x</a> (In English)
- Davis-Kean, P. E. (2005) The influence of parent education and family income on child achievement: The indirect role of parental expectations and the home environment. *Journal of Family Psychology*, vol. 19, no. 2, pp. 294–304. <a href="https://doi.org/10.1037/0893-3200.19.2.294">https://doi.org/10.1037/0893-3200.19.2.294</a> (In English)
- Davis-Kean, P. E., Tighe, L. A., Waters, N. E. (2021) The role of parent educational attainment in parenting and children's development. *Current Directions in Psychological Science*, vol. 30, no. 2, pp. 186–192. <a href="https://doi.org/10.1177/0963721421993116">https://doi.org/10.1177/0963721421993116</a> (In English)
- Dearing, E., Kreider, H., Simpkins, S., Weiss, H. B. (2006) Family involvement in school and low-income children's literacy: Longitudinal association between and within families. *Journal of Educational Psychology*, vol. 98, no. 4, pp. 653–664. <a href="http://dx.doi.org/10.1037/0022-0663.98.4.653">http://dx.doi.org/10.1037/0022-0663.98.4.653</a> (In English)
- Dearing, E., McCartney, K., Weiss, H. B. et al. (2004) The promotive effects of family educational involvement for low-income children's literacy. *Journal of School Psychology*, vol. 42, no. 6, pp. 445–460. <a href="https://doi.org/10.1016/j.jsp.2004.07.002">https://doi.org/10.1016/j.jsp.2004.07.002</a> (In English)
- Dubow, E. F., Boxer, P., Huesmann, L. R. (2009) Long-term effects of parents' education on children's educational and occupational success: Mediation by family interactions, child aggression, and teenage aspirations. *Merrill-Palmer Quarterly*, vol. 55, no. 3, pp. 224–249. <a href="https://doi.org/10.1353/mpq.0.0030">https://doi.org/10.1353/mpq.0.0030</a> (In English)
- Dumais, S. A., Kessinger, R. J., Ghosh, B. (2012) Concerted cultivation and teachers' evaluations of students: Exploring the intersection of race and parents' educational attainment. *Sociological Perspectives*, vol. 55, no. 1, pp. 17–42. <a href="https://doi.org/10.1525/sop.2012.55.1.17">https://doi.org/10.1525/sop.2012.55.1.17</a> (In English)
- Duncan, G. J., Magnuson, K. (2012) Socioeconomic status and cognitive functioning: Moving from correlation to causation. *Wiley Interdisciplinary Reviews: Cognitive Science*, vol. 3, no. 3, pp. 377–386. <a href="https://doi.org/10.1002/wcs.1176">https://doi.org/10.1002/wcs.1176</a> (In English)
- Eccles, J. S. (2005) Influences of parents' education on their children's educational attainments: The role of parent and child perceptions. *London Review of Education*, vol. 3, no. 3, pp. 191–204. <a href="https://doi.org/10.1080/14748460500372309">https://doi.org/10.1080/14748460500372309</a> (In English)
- Eccles, J. S. (2007) Families, schools, and developing achievement-related motivations and engagement. In: J. E. Grusec, P. D. Hastings (eds.). *Handbook of socialization: Theory and research*. New York: Guilford Press, pp. 665–691. (In English)
- Englund, M. M., Luckner, A. E., Whaley, G. J. L., Egeland, B. (2004) Children's achievement in early elementary school: Longitudinal effects of parental involvement, expectations, and quality of assistance. *Journal of Educational Psychology*, vol. 96, no. 4, pp. 723–730. <a href="https://doi.org/10.1037/0022-0663.96.4.723">https://doi.org/10.1037/0022-0663.96.4.723</a> (In English)
- Erola, J., Jalonen, S., Lehti, H. (2016) Parental education, class and income over early life course and children's achievement. *Research in Social Stratification and Mobility*, vol. 44, pp. 33–43. <a href="https://doi.org/10.1016/j.rssm.2016.01.003">https://doi.org/10.1016/j.rssm.2016.01.003</a> (In English)
- Farooq, M. S., Chaudhry, A. H., Shafiq, M., Berhanu, G. (2011) Factors affecting students' quality of academic performance: A case of secondary school level. *Journal of Quality and Technology Management*, vol. 7, no. 2, pp. 1–14. (In English)
- Fekonja-Peklaj, U., Ljubica Marjanovič-Umek, L., Kranjc, S. (2010) Children's storytelling: The effect of preschool and family environment. *European Early Childhood Education Research Journal*, vol. 18, no. 1, pp. 55–73. <a href="https://doi.org/10.1080/13502930903520058">https://doi.org/10.1080/13502930903520058</a> (In English)
- Gerra, G., Benedetti, E., Resce, G. et al. (2020) Socioeconomic status, parental education, school connectedness and individual socio-cultural resources in vulnerability for drug use among students. *International Journal of Environmental Research and Public Health*, vol. 17, no. 4, article 1306. <a href="https://doi.org/10.3390/ijerph17041306">https://doi.org/10.3390/ijerph17041306</a> (In English)
- Greenfield, E. A., Moorman, S. M. (2019) Childhood socioeconomic status and later life cognition: Evidence from the Wisconsin longitudinal study. *Journal of Aging and Health*, vol. 31, no. 9, pp. 1589–1615. <a href="https://doi.org/10.1177/0898264318783489">https://doi.org/10.1177/0898264318783489</a> (In English)
- Gustafsson, J.-E., Yang Hansen, K., Rosén, M. (2013) Effects of home background on student achievement in reading, mathematics, and science at the fourth grade. In: M. O. Martin, I. V. S. Mullis (eds.). *TIMSS and PIRLS 2011: Relationships among reading, mathematics, and science achievement at the fourth grade—implications for early learning.* Chestnut Hill: TIMSS & PIRLS International Study Center Publ.; Boston College Publ., pp. 183–289. (In English)

- Henry, D. A., Betancur Cortés, L., Votruba-Drzal, E. (2020) Black–White achievement gaps differ by family socioeconomic status from early childhood through early adolescence. *Journal of Educational Psychology*, vol. 112, no. 8, pp. 1471–1489. https://doi.org/10.1037/edu0000439 (In English)
- Hill, N. E., Castellino, D. R., Lansford, J. E. et al. (2004) Parent academic involvement as related to school behavior, achievement, and aspirations: Demographic variations across adolescence. *Child Development*, vol. 75, no. 5, pp. 1491–1509. <a href="https://doi.org/10.1111/j.1467-8624.2004.00753.x">https://doi.org/10.1111/j.1467-8624.2004.00753.x</a> (In English)
- Hosokawa, R, Katsura, T. (2017) A longitudinal study of socioeconomic status, family processes, and child adjustment from preschool until early elementary school: The role of social competence. *Child and Adolescent Psychiatry and Mental Health*, vol. 11, article 62. <a href="https://doi.org/10.1186/s13034-017-0206-z">https://doi.org/10.1186/s13034-017-0206-z</a> (In English)
- Hung, M., Smith, W. A., Voss, M. W. et al. (2020) Exploring student achievement gaps in school districts across the United States. *Education and Urban Society*, vol. 52, no. 2, pp. 175–193. <a href="https://doi.org/10.1177/0013124519833442">https://doi.org/10.1177/0013124519833442</a> (In English)
- Iwaniec, J. (2018) The effects of parental education level and school location on language learning motivation. *The Language Learning Journal*, vol. 48, no. 4, pp. 427–441. <a href="https://doi.org/10.1080/09571736.2017.1422137">https://doi.org/10.1080/09571736.2017.1422137</a> (In English)
- Jæger, M. M. (2011) Does cultural capital really affect academic achievement? New evidence from combined sibling and panel data. *Sociology of Education*, vol. 84, no. 4, pp. 281–298. <a href="https://doi.org/10.1177/0038040711417010">https://doi.org/10.1177/0038040711417010</a> (In English)
- Kim, D. H., Schneider, B. (2005) Social capital in action: Alignment of parental support in adolescents' transition to postsecondary education. *Social Forces*, vol. 84, no. 2, pp. 1181–1206. <a href="https://doi.org/10.1353/sof.2006.0012">https://doi.org/10.1353/sof.2006.0012</a> (In English)
- Kim, Y., Mok, S. Y., Seidel, T. (2020) Parental influences on immigrant students' achievement-related motivation and achievement: A meta-analysis. *Educational Research Review*, vol. 30, article 100327. <a href="https://doi.org/10.1016/j.edurev.2020.100327">https://doi.org/10.1016/j.edurev.2020.100327</a> (In English)
- Liu, J., Peng, P., Luo, L. (2020) The relation between family socioeconomic status and academic achievement in China: A meta-analysis. *Educational Psychology Review*, vol. 32, pp. 49–76. <a href="https://doi.org/10.1007/s10648-019-09494-0">https://doi.org/10.1007/s10648-019-09494-0</a> (In English)
- Marks, G. N., O'Connell, M. (2021) Inadequacies in the SES-Achievement model: Evidence from PISA and other studies. *Review of Education*, vol. 9, no. 3, article e3293. <a href="https://doi.org/10.1002/rev3.3293">https://doi.org/10.1002/rev3.3293</a> (In English)
- Mikkonen, J., <u>Remes</u>, H., <u>Moustgaard</u>, H., <u>Martikainen</u>, <u>P.</u> (2020) Evaluating the role of parental education and adolescent health problems in educational attainment. *Demography*, vol. 57, no. 6, pp. 2245–2267. <a href="https://doi.org/10.1007/s13524-020-00919-y">https://doi.org/10.1007/s13524-020-00919-y</a> (In English)
- O'Connell, M. (2019) Is the impact of SES on educational performance overestimated? Evidence from the PISA survey. *Intelligence*, vol. 75, pp. 41–47 https://doi.org/10.1016/j.intell.2019.04.005 (In English)
- Poon, K. (2020) The impact of socioeconomic status on parental factors in promoting academic achievement in Chinese children. *International Journal of Educational Development*, vol. 75, article 102175. <a href="https://doi.org/10.1016/j.ijedudev.2020.102175">https://doi.org/10.1016/j.ijedudev.2020.102175</a> (In English)
- Rodríguez-Hernández, C. F., Cascallar, E., Kyndt, E. (2020) Socio-economic status and academic performance in higher education: A systematic review. *Educational Research Review*, vol. 29, article 100305. <a href="https://doi.org/10.1016/j.edurev.2019.100305">https://doi.org/10.1016/j.edurev.2019.100305</a> (In English)
- Roksa, J., Potter, D. (2011) Parenting and academic achievement: Intergenerational transmission of educational advantage. *Sociology of Education*, vol. 84, no. 4, pp. 299–321. <a href="https://doi.org/10.1177/0038040711417013">https://doi.org/10.1177/0038040711417013</a> (In English)
- Tan, C. Y., Lyu, M., Peng, B. (2019) Academic benefits from parental involvement are stratified by parental socioeconomic status: A meta-analysis. *Parenting*, vol. 20, no. 4, pp. 241–287. <a href="https://doi.org/10.1080/15295192.2019.1694836">https://doi.org/10.1080/15295192.2019.1694836</a> (In English)
- Waters, N. E., Ahmed, S. F., Tang, S. et al. (2021) Pathways from socioeconomic status to early academic achievement: The role of specific executive functions. *Early Childhood Research Quarterly*, vol. 54, pp. 321–331. <a href="https://doi.org/10.1016/j.ecresq.2020.09.008">https://doi.org/10.1016/j.ecresq.2020.09.008</a> (In English)
- Yang Hansen, K., Gustafsson, J. E. (2016) Determinants of country differences in effects of parental education on children's academic achievement. *Large-scale Assessments in Education*, vol. 4, article 11. <a href="https://doi.org/10.1186/s40536-016-0027-1">https://doi.org/10.1186/s40536-016-0027-1</a> (In English)
- Yang, Y. (2003) *Measuring socio-economic status and its effects on individual and collective levels: A cross-country comparison*. Gothenburg: Acta Universitatis Gothoburgensis Publ., 129 p. <a href="http://dx.doi.org/10.13140/RG.2.1.3875.5441">http://dx.doi.org/10.13140/RG.2.1.3875.5441</a> (In English)

#### Authors

Vladimir N. Panferov, Doctor of Sciences (Psychology), Professor of the Department of General and Social Psychology, Herzen State Pedagogical University of Russia

SPIN: <u>1910-5422</u>, Scopus Author ID: <u>57128097400</u>, Researcher ID: <u>F-8321-2019</u>, ORCID: <u>0000-0002-3528-3122</u>, e-mail: v-panferov@mail.ru

Larisa A. Tsvetkova, Full Member of the Russian Academy of Education, Doctor of Sciences (Psychology), Professor, Acting Vice-President of the Russian Academy of Education, Senior Researcher at the Institute of Psychology at Herzen State Pedagogical University of Russia, Deputy Director for Research at Higher School of Economics in Saint Petersburg

SPIN: <u>2815-8700</u>, Scopus AuthorID: <u>7006374015</u>, ŘesearcherID: <u>I-4513-2013</u>, ORCID: <u>0000-0002-4080-7103</u>, e-mail: larac@mail.ru

### Сведения об авторах

Владимир Николаевич Панферов, доктор психологических наук, профессор кафедры общей и социальной психологии, Российский государственный педагогический университет им. А. И. Герцена SPIN-код: <u>1910-5422</u>, Scopus AuthorID: <u>57128097400</u>, ResearcherID: <u>F-8321-2019</u>, ORCID: <u>0000-0002-3528-3122</u>, e-mail: v-panferov@mail.ru

Лариса Александровна Цветкова, академик Российской академии образования, доктор психологических наук, профессор, и. о. вице-президента Российской академии образования, ведущий научный сотрудник института психологии Российского государственного педагогического университета им. А. И. Герцена, заместитель директора по научной деятельности НИУ ВШЭ в Санкт-Петербурге SPIN-код: 2815-8700, Scopus AuthorID: 7006374015, ResearcherID: J-4513-2013, ORCID: 0000-0002-4080-7103,

SPIN-код: <u>2815-8700</u>, Scopus AuthorID: <u>7006374015</u>, ResearcherID: <u>J-4513-2013</u>, ORCID: <u>0000-0002-4080-7103</u> e-mail: larac@mail.ru