# RELATIONS BETWEEN PARENTAL INVOLVEMENT AND SCHOOL PERFORMANCE IN THE LIGHT OF DATA FROM NATIONAL ASSESSMENT OF BASIC COMPETENCIES (NABC) 2017

Nyitrai Erika<sup>1</sup>, Harsányi Szabolcs Gergő<sup>1</sup>, Koltói Lilla<sup>1</sup>, Kovács Dóra<sup>1</sup>, Kövesdi Andrea<sup>1</sup>, Nagybányai-Nagy Olivér<sup>1</sup>, Simon Gabriella<sup>1</sup>, Smohai Máté<sup>1</sup>, Takács Nándor<sup>1</sup>, Takács Szabolcs<sup>1</sup>

Correspondence Author: Nyitrai Erika (nyitrai.erika@kre.hu)

### Abstract

A student is primarily a member of a family, spending most of his/her time with his/her family both in the period prior to and during institutional education. According to different studies, parental involvement in school activities and home support for the child's learning are determining factors in student's achievement at school. In this study, we investigated what correlations can be discovered between different 'home events' – like providing help by parents in doing homework; discussing school affairs at home; talking with family members about the current reading experience; doing housework, gardening or working together in the workroom – and performances in reading-comprehension and mathematics demonstrated by students of different ages according to the National Assessment of Basic Competencies (NABC).

**Keywords**: competence ■ parental involvement ■ school performance

#### FACTORS INFLUENCING SCHOOL PERFORMANCE

Factors influencing students' school performance and integration into school have been discussed in a vast number of studies from the point of view of all parties concerned (students, schools, teachers and parents) (summarized by Nyitrai et al., 2019). In this study, we try to take a closer look at some of the raised issues, namely the close relations among home-school relationship systems, family education and school performance, and we present some examples of those.

Károli Gáspár University of the Reformed Church in Hungary, Institute of Psychology, Budapest, 1034, Bécsi út 324.

Coleman (1988) suggests that social capital within the family – the relationship between parents and children, namely the time and attention that parents, primarily the mother, devote to their child(ren) – will increase the secondary-school students' performance. Similar outcome has been found by Pusztai (2009), who suggests that even families with low level of education and little human capital can have high social capital and that may improve the child's school performance.

According to Fejes and Józsa (2005) the students' achievement is strongly influenced by motivation, and *motivation can be derived from socialization customs*.

In connection with this question, Lareau (2002) puts focus on *educational style*. During the so called *concerted cultivation*, families and parents strive to evolve their children's abilities through organized leisure activities. Compared to this, those claiming *the principle of spontaneous natural growth* state, that for the child's development "only" basic conditions (food, security, love) must be provided. According to the outcomes found by Bodovski and Farkas (2008), children who have received concerted cultivation perform better in school.

Roksa and Potter (2011) have conceptualized *education* as *participation* in *high cultural activities* (e.g. going to a museum); *concerted cultivation* by *Lareau* (the child's organized extra-curricular activities); *parental participation* in *school events* (volunteering, participating in programs, talking to the formmaster and the teachers); and *mother's expectations towards the child's education*. These are important aspects of talent development (Bagdy, Kövi, & Mirnics, 2014; Bagdy, Mirnics, & Kövi, 2014).

Perpék and Fekete (2016) have distinguished so-called *educational factors* requiring financial sacrifice and pre-organization, and areas not requiring financial investments. They examined how the students' school performance (GPA, did they repeat a school year?, did they go to catch-up class?, were they private students?, were they expelled?) was effected by the home educational environment (e.g. how often do they eat together with their parents, do they have books for their age, do they discuss with the children what they have seen on television, etc.), the features and activities related to the children's free time, as well as the mother's expectations towards the child's education.

Bradley and Corwyn (2005) claim that evolvement and development of children's competencies, and hereby better performance, are promoted by *home stimulation*, and children's well-being can be increased if parents realize and satisfy the real needs of their children (parental responsiveness).

In terms of our subject-matter, among the factors influencing school performance we put particular emphasis on parental involvement.

#### PARENTAL INVOLVEMENT

Parental involvement in itself is a phenomenon explained in various ways in different researches. The OECD 2012 report defines parental involvement as "parents' active commitment towards the cognitive and non-cognitive development of their children". Bakker and Denessen (2007) state that parental involvement is a set of parental behaviours that directly or indirectly affect the children's coanitive development and school performance. F. Lassú et al. (2012) suggest that beyond participation in various institutional programs, parental involvement means a certain inner commitment, attitude, motivation towards activities connected with school, the parents' involvement into out-of-school education of their children. According to Podráczky's definition (2012) it means the scope of activities or set of behavioural forms that parents develop for the sake of their children's development. In a narrower sense, parental involvement means school participation and providing support at home. In a broader sense it means the various behavioural forms and practices connected with the child's education (parental aspirations, expectations, attitudes, beliefs, etc.) (Hendeson & Mapp, 2002).

In the literature discussing the forms of parental involvement we can encounter various models (Edwards & Alldred, 2000). From the school's aspect, the parents' involvement into the institutional life can be realized on formal, consultative, active and school management levels (Daniels et al., 1995). Another frequently applied model developed by Epstein (2001, 2010), distinguishes six different forms, and from our subject's point of view it is important that one of these is parental involvement. His model has been utilized in many researches and in development of various programs (Hungarian aspects see Marton, 2015).

Other authors mention two types of parental involvement: *home-based involvement* (its two components are: discussing the school events, the activities and tasks; and taking care of the children's out-of-school activities), and *school-based involvement* (its two components are: relationships between parents and teachers, employees working in the school; and parents' voluntary participation in school tasks) (Sui-Chu & Williams, 1996).

Similarly, the PISA 2009 Study distinguishes two forms of parental involvement: *participation in school events* (participation in reception hours, parents' meeting, school ceremonies), and *providing support at home*. This latter has three different forms as follows: assistance that may be directly connected with school studies (helping with homework, discussing school events); common activities not connected with school (playing games jointly, going to museum, movie); and parents' attitudes towards education, school (Borgonovi & Montt, 2012).

#### FACTORS INFLUENCING THE EXTENT OF PARENTAL INVOLVEMENT

The extent of parental involvement is influenced by many factors.

From parental side, among others, the parents' subjective intention concerning to what extent they themselves want to participate in the child's school life and learning (see Williams et al., 2002); the student's age is decisive in both the extent of the parental involvement (the younger the parent is, the greater is the involvement) and its form (in case of older students' parents are no longer checking homework, but support the child's self-esteem and help in making decisions, e.g. Catsambis, 2001); the parents'/family's socio-economic status (Lareau, 1987; Podráczky 2012), the atmosphere in the school (Desforges et al., 2003); the parents' belief/experience in how much they can become their children's teacher; how comfortable they are in communication with teachers; and the most important aspect: the mothers' role (her education, though others claim that it is the father's education that is decisive) (Hoover-Dempsey & Sandler, 1997), etc. From the students' side, among others, to what extent they would like to involve their parents into different tasks connected with school, and how much they would like to see their parents at school too (Deslandes & Clutier, 2002; Edward & Alldred, 2000), that being in connection with the children's age (the adolescent child's own sense of responsibility and autonomy needs); their role in the family, since many teenagers feel responsible for their parents' physical and spiritual life (keeping quiet things to save them, thinking that they are too busy); even the sex of the child is decisive (girls tend to support parental involvement more actively (primarily home-based parental involvement) (Edwards & Alldred, 2000).

And according to experience, it can be demonstrated that parental involvement is culture-specific. Mau (1997) observed among Asian students that increase in parental support may be counterproductive, as it results in poorer performance for students.

# PARENTAL INVOLVEMENT AND SCHOOL PERFORMANCE RESULTS OF FOREIGN STUDIES

Desforges and Abouchaar (2003) claim that *home-based involvement*, i.e. helping students with learning at home, is more important than *parental participation in school events*. According to researches, among all forms of parental involvement, *having conversations at home* has the most powerful positive effect. McNeal (2001) observed that among white, middle-class students with both of the parents, the extent of parental involvement affected only the achievements in natural science subjects and not the performance in common. At the same time, it is apparently getting outlined that school-based parental

involvement is less decisive from the point of view of students' learning performance, and if the economic variable is controlled, *it will rather influence the students' behaviour in and integration into school* (Desforges & Abouchaar, 2003).

Parental involvement in school life, already in itself, bears many contradictions: it may rather be linked to parents with a better socio-economic status, thus contributing to increase in inequalities in school (Nechyba et al., 1999); most adolescents do not inform their parents about the life of their class, that even teachers do not care for properly, hereby making the role of form-master eroded (Lannert & Szekszárdi, 2015), etc.

## COMPARISON OF NATIONAL AND INTERNATIONAL RESULTS

According to PISA 2000 results, the favourable family background – characterised by indicators like family structure, parents' occupation, qualification, and *cultural goods at home* – means in Hungary a greater advantage in terms of performance than in international researches. In the Hungarian sample, the students' performance was not influenced in a determinant way by the parents' cohabitation and occupation, whereas it was influenced in an above-average determinant way by the parents' educational level and access to cultural goods at home (Vári et al., 2002, 2003).

Another analysis based on PISA 2000 data also examined in international comparison, relation between school performance (reading-comprehension results) and parental family-cultural climate among 15-years-olds. The cultural climate of the family contributed to a lesser extent to school achievements than other measured characteristic features of the family background (Róbert, 2004).

#### **HUNGARIAN ASPECTS**

Imre (2002), as a part of her study, analysed *parental help with learning* as well (answer options: yes, regularly; sometimes, if required; I can't; not necessary). According to her results, only a small percentage of parents (between 3-11%) help regularly with learning, mainly high-school graduated parents. Most of them have chosen the "sometimes, if required" answer (between 50-63%). Among parents who completed only primary school, occurred the "I can't" help answer in the highest proportion. And among parents with university degree had the answer "not necessary" the highest percentage (22%). From the point of view of our study it is interesting that the Imre's questionnaire also asked where parents learned about their children's educational progress. 70% of respondents answered that from their children. Compared to the mean average,

#### NYITRALERIKA ET AL.

the group of parents with lower education showed a lesser percentage, while the group of parents with academic qualifications showed a higher percentage. In case of form-master meetings a reverse trend could be established.

In the frame of another study, Imre (2015b) interviewed school leaders, teachers, 3<sup>rd</sup>, 5<sup>th</sup>, 8<sup>th</sup> grade students and their parents about learning until 4 o'clock in the afternoon. She concluded that the higher grade classes the child attends, the more rarely parents are talking with him/her about school events at home. The higher the mother's educational level is, the more such conversation occurs at home about school events. *The more conversation at home occurs, according to the child's reports, the better educational level (year end GPA) is achieved by the student.* 

#### OWN RESEARCH

The relation between the students' performance (reading abilities and knowledge of mathematical tools) and family characteristics has been examined by OKM/NABC Student Questionnaire, along the following questions:

How often does it happen in your family that:

- a) your parents (grandparents, siblings) help with learning and doing your homework;
- b) the family is discussing what has happened to you at school;
- c) the family is talking about what you are reading currently;
- d) you are doing housework together with your family;
- e) you and your family are gardening, working in the land or in the workroom together.

The students could choose one from four options that they considered the most typical: never or almost never; once or twice a month; once or twice a week; and every day or almost every day.

#### OUR RESULTS

The exact results and figures of tests, due to the size of tables and data, can be accessed in a separate structure, on the website of the journal: PSYC\_HU<sup>2</sup>.

The mathematical statistical methodology underlying the results is discussed in detail in the thematic edition, see (T. Kárász, 2019b) in Hungarian and (T. Kárász, 2019a) in English.

 $<sup>^2 \</sup>quad http://www.kre.hu/portal/index.php/kiadvanyok/folyoiratok/psychologia-hungarica-caroliensis.html$ 

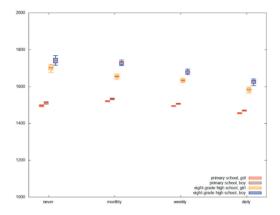


Figure No. 1: Correspondence between performance in mathematics and learning together at home  $-6^{\rm th}$  grade

As Box-plot diagrams show: by taking into account the 95% confidence intervals it can be established that among primary school boys and girls, boys' performance in mathematics is significantly higher, just as for 8th grade boys. It is also visible that the performance of the 8-grade high school students exceeds the average performance of primary school students by more than one standard deviation (200 points).

In addition to this, subjectively experienced frequency of learning together with parents/grandparents/older sibling moves inversely to performance, the better the student's performance is, the less the parents/grandparents will keep control over him/her during learning at home (in mathematics).

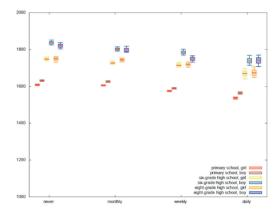


Figure No. 2: Correspondence between performance in mathematics and learning together at home –  $8^{\rm th}$  grade

As Box-plot diagrams show: by taking into account the 95% confidence intervals it can be established that among primary school boys and girls, boys' performance in mathematics is significantly higher, just as for 8th grade boys (there is no substantial difference between 6-grade or 8-grade high schools). It is also visible that the performance of the 8-grade high school students exceeds the average performance of primary school students by more than one standard deviation (200 points).

In addition to this, subjectively experienced frequency of learning together with parents/grandparents/older sibling moves inversely to performance, the better the student's performance is, the less the parents/grandparents will keep control over him/her during learning at home (in mathematics).

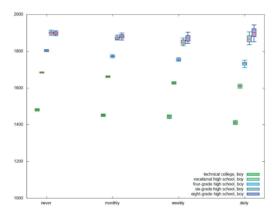


Figure No. 3a: Correspondence of performance in mathematics and learning together at home  $-10^{\rm th}$  grade

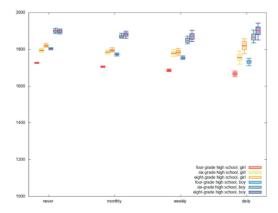


Figure No. 3b: Correspondence between performance in mathematics and learning together at home –  $10^{\rm th}$  grade

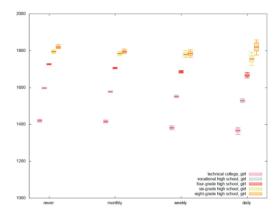


Figure No. 3c: Correspondence between of performance in mathematics and learning together at home  $-10^{th}$  grade

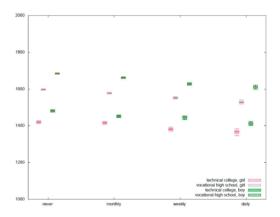


Figure No. 3d: Frequency of performance in mathematics and learning together at home  $-10^{\rm th}$  grade

It is worth observing that as for 10<sup>th</sup> grade students, in case of boys participating in six-grade or eight-grade high school education, there is no longer need to learn together. Another point of interest should be highlighted: students whose parents deal with them daily in mathematics even when they are in 6-grade or 8-grade high school age, have significantly better results than others (and, moreover, it is also an exceptionally high result). However, it should be emphasized that this is not a cause and effect connection: they do not necessarily achieve better results because of being looked after, but it can also happen that their talents and better abilities are the very reason why parents/grandparents/older sibling deal with them also separately.

In other cases, the same trend can be observed like in case of earlier classes: worse performance involves more frequent parental control.

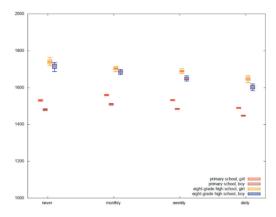


Figure No. 4: Correspondence between of text comprehension and learning together at home  $-6^{\rm th}$  grade

As Box-plot diagrams show: by taking into account the 95% confidence intervals it can be established that among primary school boys and girls, boys' performance in text comprehension is significantly higher, just as for 8<sup>th</sup> grade boys. It is also visible that the performance of the 8-grade high school students exceeds the average performance of primary school students by more than one standard deviation (200 points).

In addition to this, subjectively experienced frequency of learning together with parents/grandparents/older sibling moves inversely to performance, the better the student's performance is, the less the parents/grandparents will keep control over him/her during learning at home (in mathematics).

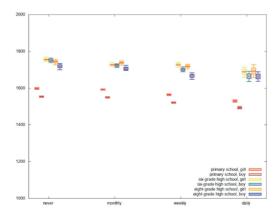


Figure No. 5: Correspondence between of text comprehension and learning together at home  $-8^{\rm th}$  grade

# See performance in mathematics

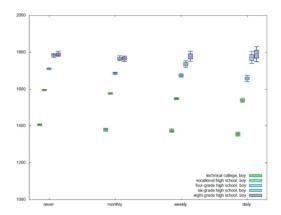


Figure No. 6a: Correspondence between text comprehension and learning together at home - 10<sup>th</sup> grade

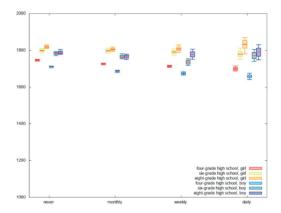


Figure No. 6b: Correspondence between text comprehension and learning together at home - 10<sup>th</sup> grade

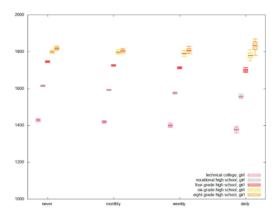


Figure No. 6c: Correspondence between text comprehension and learning together at home  $-10^{\rm th}$  grade

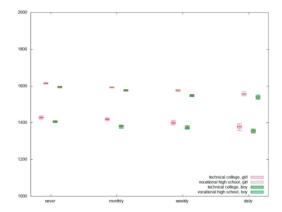


Figure No. 6d: Correspondence between text comprehension and learning together at home  $-10^{\rm th}$  grade

See previous table about the outstanding performance.

#### **SUMMARY**

According to our results, the better the student's performance in mathematical and text comprehension exercises, the less often learning together at home occurs in all the three age-groups ( $6^{th}$ ,  $8^{th}$ ,  $10^{th}$  grade), in both sexes and in all school types. We found exceptions in two cases: among the  $10^{th}$  grade students, participating in six-grade or eight-grade high school education, students whose parents deal with them daily in mathematics tend to achieve significantly better

results than others (and furthermore, this is an extremely outstanding result). In case of girls, this trend can be observed in text comprehension exercises. With respect to the relation between subjectively experienced frequency of talking about school events at home, and performance in mathematics and text comprehension, we found age-specificity. Furthermore, we observed that students being involved in housework or common family work once or twice a month showed better performance than their schoolmates who were involved every day or never. We did not find any relation between the performance and the frequency of discussing what the students were currently reading.

However, the results obtained should be treated with caution. Some earlier studies have already pointed out that usually those students have better performance in school, whose family background is better (see OKM 2017 report), whose parents support the child's learning at home, have conversations with them (e.g. Imre, 2015a), but subject to controlling economic variables these benefits have disappeared (Desforges & Abouchaar, 2003). At the time of reporting these data, we have not controlled this variable.

In this study, we did not set out in details what percentage of students we are talking about in case of each analysis (numbers of cases are shown in the tables).

It is difficult to compare our results with the results of previous studies, because they do not use the same indicators to examine a particular phenomenon.

For the purpose of drawing conclusions, some information about the reasons of conversation should be collected, that are currently not available for us. In order to conclude, that the determined inverse relationship between performance and e.g. learning together seems to be a controlling role.

The differences in performance per school type are also remarkable, but they should be handled with care as well.

The standard deviations among the performances of students belonging definitely to the same type of school are also worth further investigation.

#### LITERATURE

- Bagdy, E., Mirnics, Zs., Kövi, Zs. (2014). *Fény és árnyék*. A tehetségerők felszabadítása. Matehetsz, Budapest.
- Bagdy, E., Kövi, Zs., Mirnics, Zs. (2014). A tehetség kibontakozása. Helikon Kiadó, Budapest.
- Bakker, J. T. A., & Denessen, E. J. P. G. (2007). The concept of parent involvement: Some theoretical and empirical considerations.
- Bakker, J., Denessen, E., & Brus-Laeven, M. (2007). Socio-economic background, parental involvement and teacher perceptions of these in relation to student achievement. *Educational Studies*, 33(2), 177-192.
- Balázsi I., Ostorics, L., Szalay, B., Szepesi, I., & Vadász, C. (2010) PISA 2009 összefoglaló jelentés. Szövegértés tíz év távlatában, Oktatási Hivatal, Budapest

#### NYITRALERIKA ET AL.

- Balázsi, I., Ostorics, L., Szalay, B., Szepesi, I., & Vadász, C. (2013). PISA 2012 Összefoglaló jelentés. Oktatási Hivatal, Budapest
- Barta, Sz. (2009). A 2006-os kompetenciamérés tizedik évfolyamos adatainak elemzése. *Educatio*, 2, 250–256.
- Bodovski, K., & Farkas, G. (2007). Mathematics growth in early elementary school: The roles of beginning knowledge, student engagement, and instruction. *The Elementary School Journal*, 108(2), 115-130.
- Borgonovi, F., & Montt, G. (2012). Parental involvement in selected PISA countries and economies.
- Catsambis, S. (2001). Expanding knowledge of parental involvement in children's secondary education: Connections with high school seniors' academic success. *Social Psychology of Education*, 5(2), 149-177.
- Coleman, J. S. (1981). Quality and Equality in American Education: Public and Catholic Schools. Phi Delta Kappan, 63. 3. sz. 159-164.
- Csüllög, K., & Molnár, D. É., Lannert, J. (2014): A tanulók matematikai teljesítményét befolyásoló motívumok és stratégiák vizsgálata a 2003-as és 2012-es PISA mérésekben. *Hatások és különbségek, Oktatási Hivatal*.
- Desforges, C., & Abouchaar, A. (2003). The impact of parental involvement, parental support and family education on student achievement and adjustment: A literature review (Vol. 433). Nottingham: DfES publications.
- Desforges, C. (2003). with Abouchaar, A. (2003) The impact of parental involvement, parental support and family education on student achievements and adjustment: A literature review. *Department for Education and Skills Report*.
- Deslandes, R., & Cloutier, R. (2002). Adolescents' perception of parental involvement in schooling. School Psychology International, 23(2), 220-232.
- Edwards, R., & Alldred, P. (2000). A typology of parental involvement in education centring on children and young people: Negotiating familialisation, institutionalisation and individualisation. British Journal of Sociology of Education, 21(3), 435-455.
- Sheldon, S. B., & Epstein, J. L. (2005). Involvement counts: Family and community partnerships and mathematics achievement. The Journal of Educational Research, 98(4), 196-207.
- Epstein, J. L. (2001). Building bridges of home, school, and community: The importance of design. Journal of education for students placed at risk, 6(1-2), 161-168.
- Epstein, J. L. (2001). School, family, and community partnerships: Preparing educators and improving schools. Westview Press.
- F. Lassú, Zs., Perlusz, A. & Amrton, E. (2012). Elvek és gyakorlatok, in: Podráczky, J. (2012). Szövetségben, Tanulmányok a család és az intézményes nevelés kapcsolatáról, ELTE Eötvös Kiadó, Budapest, 85-102.
- F. Lassú, Zs., Podráczky, J., Glauber, A., Perlusz, A., & Marton. E. (2012). Nemzetközi kutatások a szülői részvétel hatásáról, in. Podráczky, J. (2012). Szövetségben, Tanulmányok a család és az intézményes nevelés kapcsolatáról, ELTE Eötvös Kiadó, Budapest, 13-42.
- Fejes, J. B., & Józsa, K. (2005). A tanulási motiváció jellegzetességei hátrányos helyzetű tanulók körében. Magyar Pedagógia, 105(2), 185-205.

- Hegedűs, J., & Podráczky, J. (2012). Fókuszcsoportos beszélgetések a közoktatási intézmény és a család kapcsolatáról első reflexiók a kutatás kapcsán, in: Henderson, A. T., & Mapp, K. L. (2002). A New Wave of Evidence: The Impact of School, Family, and Community Connections on Student Achievement. Annual Synthesis, 2002.
- Hegedűs, R. (2016). Tizedik osztályos tanulók teljesítményének területi különbségei, *Iskolakultúra*, 26., 12., 16-30.
- Hoover-Dempsey, K. V., & Sandler, H. M. (1997). Why do parents become involved in their children's education? *Review of Educational Research*, 67(1), 3-42.
- Hoover-Dempsey, K. V., Battiato, A. C., Walker, J. M., Reed, R. P., DeJong, J. M., & Jones, K. P. (2001). Parental involvement in homework. *Educational psychologist*, *36*(3), 195-209.
- Imre, A (2002) Szülők és iskola, Educatio, 3, 498-503
- Imre, A. (2002). Az iskolai hátrány összetevői. Educatio, 1., 63–72.
- Imre, A. (2002). Iskola és eredményesség, Educatio, 3, 524-527.
- Imre, N. (2015a). A szülői támogatás szerepe a tanuló előmenetelében, in. Kozma, T., & Perjés, I. (szerk.). Új kutatások a neveléstudományokban, MTA Pedagógiai Tudományos Bizottsága, ELTE Eötvös Kiadó. Budapest, 33-39.
- Imre, N. (2015b). Szülői támogatás szerepe tanulók előmenetelében, XV. Országos Neveléstudományi Konferencia, Konferenciakötet szerkesztői: Tóth, P., Holik, I., Tordai. Z., Óbudai Egyetem, Budapest, 70.
- Lannert, J., & Szekszárdi, J. (2015). Miért nem érti egymást szülő és pedagógus?. *Iskolakultúra*, 25(1), 15-34.
- Lareau, A. (2002). Invisible inequality: Social class and childrearing in black families and white families. *American sociological review*, 747-776.
- Lareau, A. (1987). Social class differences in family-school relationships: The importance of cultural capital. Sociology of education, 73-85.
- Mau, W. C. (1997). Parental influences on the high school students' academic achievement: A comparison of Asian immigrants, Asian Americans, and White Americans. *Psychology in the Schools*, 34(3), 267-277.
- McNeal Jr, R. B. (2001). Differential effects of parental involvement on cognitive and behavioural outcomes by socioeconomic status. *The Journal of Socio-Economics*, 30(2), 171-179.
- Marton, E. (2015). Mit hoztam, mit vinnék? A szülők iskolával kapcsolatos elvárásai, in. Kozma, T., & Perjés, I. (szerk.). Új kutatások a neveléstudományokban, MTA Pedagógiai Tudományos Bizottsága, ELTE Eötvös Kiadó, Budapest, 165-174.
- Nechyba, T. J., McEwan, P. J., & Older-Aguilar, D. (1999). The impact of family and community resources on student outcomes: An assessment of the international literature with implications for New Zealand. Ministry of Education.
- Perpék, É., & Fekete, A. (2016). Otthoni nevelési környezet és iskolai teljesítmény, in. Vastagh, Z., & Hesz, I. (2016) *Gyerekesélyek a végeken I., Tanulmányok a leghátrányosabb helyzetű kistérségek gyerekeinek életkörülményeiről*, MTA TK Gyerekesély program, Budapest, 120-151.
- Podráczky, Zs. (2012). Családi és intézményes nevelés kapcsolata a hazai kutatásokban, in: Podráczky, J. (2012). Szövetségben, Tanulmányok a család és az intézményes nevelés kapcsolatáról, ELTE Eötvös Kiadó, Budapest, 71-84.

#### NYITRALERIKA ET AL.

- Pusztai, A. (2009). Társadalmi tőke és az iskolai pályafutás, Új Mandátum Kiadó, Budapest
- Róbert, P. (2004): Iskolai teljesítmény és társadalmi háttér nemzetközi összehasonlításban. In: Kolosi, T., Tóth, I. Gy., & Vukovich. Gy. (szerk.): Társadalmi riport, TÁRKI, Budapest 193-205.
- Roksa, J., & Potter, D. (2011). Parenting and academic achievement: Intergenerational transmission of educational advantage. *Sociology of education*, 84(4), 299-321.
- Epstein, J., & Sander, M. (2000). Handbook of the Sociologic of Education.
- Sui-Chu, E. H., & Willms, J. D. (1996). Effects of parental involvement on eighth-grade achievement. Sociology of education, 126-141.
- Vári, P. (szerk) (2003). PISA vizsgálat 2000. Műszaki Könyvkiadó, Budapest.
- Vári, P., Auxné Bánfi, I., Felvégi, E., Rózsa, Cs., & Szalay, B. (2002). Gyorsjelentés a PISA 2000 vizsgálatról, Új Pedagógiai Szemle, 1, 38–65.
- Williams, B., Williams, J., & Ullman, A. (2002). Parental involvement in education.

## Citations of this thematic edition

- Nyitrai Erika, Harsányi Szabolcs Gergő, Koltói Lilla, Kovács Dóra, Kövesdi Andrea, Nagybányai-Nagy Olivér, Simon Gabriella, Smohai Máté, Takács Nándor, Takács Szabolcs: Iskolai teljesítmény és szülői bevonódottság
- T. Kárász, J. (2019a). Estimation methods on standard error of different statistical parameters.
- T. Kárász, J. (2019b). Hibabecslési eljárások véletlen jelenségek paramétereinek becslésére.