APPENDIX

THE ANALYSIS OF PARENTAL INVOLVEMENT CONCERNING TYPES OF SCHOOL AND REGIONS BASED ON THE NATIONAL COMPETENCE ASSESSMENT 2017 AND 2018

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Abstract

There are different types of parents' involvement into their children's learning (Bailey, 2017; Park and Holloway, 2017). In our study we focus on the school-based parental involvement, and analyse its relationship with students' achievements. The main theories are presented, and the barriers of the school – parents relationships are discussed in this article. In our study, the relationship of parental involvement and student achievement is examined in two aspects: parent – school relationship and parental expectations toward school on the sample of the National Assessment of Basic Competencies. The data are analysed by counties and regions, as well. Our results prove the correlation of parental involvement and academic achievement within certain limitations especially in the sample of the primary school students and vocational high school and technical college students. According to our results parental involvement differs by regions and counties: it is higher in the more developed parts of Hungary. The authors of the study carried out the research on the basis of the National Assessment of Basic Competencies Research Group with the topic number 20642B800, funded by the Faculty of Humanities and Social Sciences, Károli Gáspár University of the Reformed Church in Hungary.

Keywords: parental involvement ▪ parental expectations ▪ assessment of competencies ▪ academic achievement

INTRODUCTION

Parental involvement is an important and popular subject of research on academic achievement and school socialization. Numerous studies focus on the impact of parental involvement on academic achievement, especially regarding reduced absence and dropout rates, improved school performance (e.g., Epstein, 1987; Lareau, 1987),

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and positive school-related attitudes (e.g., Ho Sui-Chu & Willms, 1996; cited by Radu, 2012). Researchers in the field agree that the most important factor underlying academic achievement is parents themselves, that is, their parenting style, involvement, and their way of transmission of, and attitude towards, learning-related values (Bempechat & Shernoff, 2012). The provision of optimal parental support, however, depends on several factors such as, for example, the family's socioeconomic status (SES), children's abilities, the school environment etc. (Bailey, 2017).

Besides the considerable scientific attention paid to parental involvement, the related issues have also come into educational policy makers' focus. Various educational programmes based on the available empirical findings have been developed to support parental involvement, given that most studies of academic achievement point out parents' impact as the key influencing factor (Bailey, 2017). Findings on the impact of these programmes on educational outcomes are also inconsistent, since some of the related findings revealed a positive effect on learning (e.g., Yamamoto & Holloway, 2010), while others failed to demonstrate such a positive impact. For example, Crosby and colleagues (2015) conducted a meta-analysis of 41 programmes facilitating parental involvement, and the obtained results did not clearly confirm that these programmes would efficiently facilitate academic achievement.

The present study explores the relationship between parental expectations and students' school performance, the factors hindering parental involvement, and the impact of the intensity of parental involvement or the lack thereof on performance.

THE CONCEPT OF PARENTAL INVOLVEMENT

Parental involvement have been conceptualized in diverse ways from simple definitions, such as parental involvement in all activities that support children's progress at school, all forms of parental help serving success in learning (e.g., Bailey, 2017; Park & Holloway, 2017), to complex models (e.g., Epstein, 2001/2010, see below). The most recent related studies reflect that the concept of parental involvement is undergoing the same developmental process as that affecting so many popular subjects of research (McGuire, 2001): as a result of the increasing number of diverse conceptualizations and operationalization, the implications of the often contradictory findings are becoming less and less clear. This is well illustrated by the results of a meta-analysis published by Wilder (2014), which generally confirmed the relationship between parental involvement and academic achievement, while it also revealed that the strength of the association varied according to the adopted operationalization of the construct of parental involvement. When measured as parental expectations, for example, a strong positive relationship was found, whereas parents' willingness to help their children with homework was either unrelated or negatively related to academic achievement. A common aspect of all existing conceptualizations is the fundamental distinction between home-based and school-based parental involvement (e.g., Hill & Taylor, 2004; Par, 2017; Puccioni, 2018). It has to be added that optimal parental involvement

varies across students according to factors partly related and partly unrelated to the parents, such as the student's needs, the family's resources, parents' workload and schedule, information provided by the school etc. (Bailey, 2017).

Explanatory theories of parental involvement

There are two major theoretical frameworks of parental involvement, one of which most researchers refer to. Coleman's theory of social capital suggests that children are provided with resources in a close and supportive parent-child relationship, on which their development and thus their academic achievement depends (Coleman, 1988). Coleman's theory was subsequently extended to a collective level, at which the concept of social capital includes collective as well as individual resources (e.g., Putnam, 1993, 2000; Portman, 2000; cited by Park, 2017). However, some of the studies analyzing parental involvement fail to make a clear distinction between the individual and collective levels (Park, 2017).

Epstein (2001/2010) suggests that both parents and schools are responsible for children's socialization. Children are most likely to progress at school when the family and the school harmonize their supportive activities and cooperate to reach their joint objective. Epstein's model of parental involvement distinguishes between three sources of influence (parents, school, community), whose interactions have a formative impact on children's academic achievement. The interconnections between the parents, the school and the community are based on the following six activities (Epstein, 2001/2010):

1. Parenting style: The parents are responsible for providing a healthy and safe environment for the child, which supports efficient learning. The school should help the parents support the child in learning.

2. Communication: The school is responsible for contacting the parents, and for providing them with the necessary information. The school and the parents should maintain bilateral communication.

3. Volunteerism: The parents essentially contribute to the improvement of the school environment and education. The school may facilitate this process by harmonizing parents' contributions with the needs of students and the school staff.

4. Homework: parents may help the child with school-based activities and support teachers' work.

5. Decision making: the school may assign an important role to the parents in making school-related decisions. It is important to enable all community members to participate in these decision making processes rather than involving only those who are the most available for discussing school-related matters.

6. Community-based collaboration The school's duty to coordinate the resources and work of the community, business participants, and higher education institutions in order to improve school programmes, parental practices and students' progress.

7. The above types of parental involvement are defined according to their characteristic effects on children's development and learning activities, while they also contribute to the development of the parents, the school and the community. This model

assuming overlapping effects suggest that the three factors (family, school, community) interact both at an individual and at an institutional level. The six types of involvement may be considered as a framework describing the processes shaping the behaviour and roles of the parents, community members, and the school staff (Bailey, 2017).

School-based parental involvement

As discussed in the introduction, the various approaches agree on the distinction between home-based and school-based parental involvement. However, even the concept of parental involvement itself has diverse definitions; the simplest of these describes it as parents' involvement in activities supporting children's progress at school (Park & Halloway, 2017). Most conceptualizations include the parents' direct contact with the school aimed at keeping track of the child's progress and developing a sense of community centred on the school (Li & Fisher, 2017). Many conceptualizations also include parents' voluntary activities or charitable donations (Park & Holloway, 2017).

Coleman's social capital theory encompasses both the individual and community-level effects of parental involvement (Coleman, 1988). While financial and human capital primarily provide private goods and thus serve individual interests, social capital may also provide public goods, that is, it may serve individual as well as community interests (Portes, 2000; cited by Park, 2017). The concept of school-based parental involvement is consistent with this framework, since parents' efforts made for individual students may at the same time serve the interests of the broader school community. From this perspective, volunteerism, participation in school associations, and charity may be considered as activities serving the public good, while individually oriented efforts (e.g., participation at parent-teacher meetings or in open day programmes) may also serve community interests by promoting mutual trust in the parent-school relationship (Park, 2017).

Empirical findings on the relationship between school-based parental involvement and academic achievement also largely depend on the operationalization and measurement of the hypothesized association. Some of the related studies confirmed the theoretical expectations, while others failed to find a significant relationship between school-based parental involvement and students' academic achievement or competency development (Puccioni, 2018). Park and Holloway (2017) point out that the empirical findings may largely vary across studies depending on whether a cross-sectional versus longitudinal design is employed. Cross-sectional studies revealed a positive relationship between school-based parental involvement and academic achievement, whereas a large part of longitudinal studies failed to confirm this relationship when previous school performance was also taken into account. Authors of the related studies add that the impact of school-based parental involvement is much lower in magnitude as compared to that of home-based parental involvement.

The importance of the parent-school relationship

From the perspective of the social capital theory, school-based communities form an essential factor influencing the development of effective behaviours. The community is able to promote the exchange of information, to establish behavioural norms and to clarify expectations. When the community promotes closer interpersonal and inter-generational cooperation, children's behaviour is more likely to meet the standards of social desirability (Li & Fischer, 2017).

Communities also function as an essential medium of communication, in which the frequency and quality of the parent-parent and parent-school contact have decisive importance. Deutschlander (2019) reports findings on the impact of interventions on German students and concludes that parents may use the information received from the school to influence their children's behaviour. The author illustrates this conclusion with several findings: those students whose parents were informed by the school on a weekly basis on their children's development areas were less likely to drop out of the programme, and regular phone contact between teachers and parents increased parental involvement (Kraft & Rogers, 2014; Kraft & Dougherty, 2013; cited by Deutschlander, 2019). Bergman (2013) found that when teachers sent notifications to parents on their children's failure to complete schoolwork, students' test results and measures of involvement significantly increased (Deutschlander, 2019). Castelman and Page (2017) likewise point out the importance of written notifications to parents in improving students' achievements. These authors also cite several empirical studies confirming that parents who receive more information on their children's progress at school more likely to be actively involved, which results in children's better cognitive performance. Referring to Kraft and Rogers (2015), they also emphasize that the contents of parental notifications also influences the level of parental involvement. Notifications on children's development areas resulted in higher levels of parental involvement and academic achievement as compared to notifications pointing out children's strengths (Castelman & Page, 2017). It has to be noted, however, that the form of communication should be adjusted to parents' needs. Impersonal formal written communication is less efficient in facilitating parental involvement (Bailey, 2017).

The school should support the parent-school relationship by maximizing parent-teacher contact. This is important particularly because parents need additional support when facing unfamiliar issues, and communication help the parties clarify misunderstandings, thereby eliminating the barriers to parental involvement. Bailey (2017) point out the following barriers:

a) *Communication barriers*: parents may be deterred by the language conventionally used in education, whether teachers or learning materials are the subject of communication. Although communication is bilateral, it is teachers' responsibility to keep in touch with families.

b) *Culture and identity-related barriers*: Teachers often work with families having diverse cultural backgrounds. A teacher lacking a positive attitude towards the family's culture impairs the quality of the parent-teacher relationship, which eventually leads to reduced

parental involvement. When the teacher fails to understand the child's cultural background, the parents are likely to withdraw from keep in contact with the school.

c) *Organizational barriers:* Parents do not know how to be involved in schoolwork, since they do not understand the objectives of educational programmes.

Hornby and Lafaele (2011) propose multifactorial model of barriers to parental involvement. They describe four major groups of factors: parents/family, parent-teacher relationship, and social factors. The factors are summarized in the below table.

Parent /family	Child	Parent-teacher relationship	Social factors
Parents' beliefs about involvement	The child's age	Different objectives and schedules	Historical and demographic factors
Parents' perceptions of the importance of their involvement to the school	The child's learning problems or disabilities	Different attitudes	Political factors
Parents' current living conditions	The child's outstanding abilities and talent	Different vernaculars	Economic factors
Parents' socioeconomic status, ethnicity, gender	The child's behavioural problems		

Table 1 Barriers to parental involvement (Hornby & Lafaele, 2011)

a) *Parents:* A key factor of involvement is parents' perceptions of their own responsibility for their children's progress at school. Parental involvement is hindered when parents believe they do not have the necessary abilities to support their children in learning. Such beliefs may stem from language barriers or even from low self-confidence, while some parents choose not to keep in contact with the school because of their previous negative experiences. Another reason for a lack of parental involvement is related to the child's abilities. No involvement may be expected from parents who believe that one's abilities are fixed, and only those students achieve success at school who are lucky enough to have good abilities. A further important factor is parents' beliefs about how much their involvement is appreciated by the school. Therefore it is important for teachers to encourage parents to be involved.

b) *Children:* Parental involvement decreases with children's age; parents activity decreases over time, and children become less appreciative of their parents' involvement in schoolwork by the time they enter secondary education. Parents of children with either below or above-average abilities show higher levels of involvement. Parents of children with learning difficulties are compelled to be more closely and more actively involved in their children's schoolwork, while those whose children have outstanding abilities find communicating with teachers and participating in school-based pro-

grammes rewarding. In such cases, contact between the parents and the school is characterized by increased intensity. However, parents of children with behavioural problems prefer to avoid contact with the school, since they are concerned about hearing bad news.

c) *Parent-school relationship:* The parent-school relationship is often characterized by divergent interests. Parents' are primarily interested in their children's progress at school, while schools have multifaceted objectives such as, for example, promoting equality of opportunity, advocacy for community interests, development of school-work etc. Divergence in attitudes towards the importance of education and learning may also lead to difficulties in the parent-teacher relationship. Difficulties are not only posed by parents who are uninvolved or need special treatment but also by the more recently emerged business-oriented parental attitude, which is displayed by parents who are aware of their rights and set high expectations for the school.

d) *Social factors:* Another set of factors lie in the historical relationship between formal education and parents, that is, in the relative importance schools have assigned to parental involvement in school life. Parental involvement has been shaped by sociohistorical factors such as the amount of parents' working hours, changes in mobility, or increasing divorce rates. A similarly important role is played by current political and economic factors such as, for example, policy makers' views on parents' role in learning, or the relative importance of parents' charitable donations and voluntary activities in the maintenance of educational institutions (Hornby & Lafaele, 2011).

The relationship between school-based parental involvement and socioeconomic status

Differences in academic achievement related to socioeconomic status (SES) are in part explained by school-based parental involvement (Deutschlander, 2019). Coleman suggested as early as in the 1980s that differences in parental SES were associated with differences in parenting styles and in parental involvement (Coleman, 1988). Low-SES parents have more difficulties monitoring and restricting their children's inappropriate behaviour, especially those whose children attend schools in a disadvantaged neighbourhood. There are large differences across parents with different social backgrounds in the amount of time and energy invested in parental involvement. High-SES parents spend 45 minutes more time with their children on average (Putnam; cited by Dumont et al., 2019), and they devote more time to supporting their development and to organizing their activities (Lareau, 2002). Furthermore, disadvantaged families may be particularly challenged by those forms of parental involvement that require a considerable amount of time (e.g., participation in school committees, volunteerism) or money (e.g., donations; Li & Fischer, 2017). Parents not only differ in the amount of available resources such as time and money but also in their understanding of the education system. High-SES parents learn the rules on which the system is based and help their children's progress accordingly (Dumont et al., 2019). Several recent studies analysed SES-related differences in school track choices (Deutschlander, 2019; Dumont et al., 2019; Gil-Hernandez, 2019). Irrespective of whether Boudon's or Bourdieu's theory is used as the explanatory framework, empirical findings suggest that

high-SES parents' children are more likely to be enrolled at a grammar school when entering secondary education as compared to children from low-SES families, thus reproducing their parents' social status and preventing social mobility. This may be explained by reasons such as higher parental expectations for qualifications, and by a certain form of risk aversion in disadvantaged families. Moreover, high-SES primary students perform better and receive better grades and more support from teachers for continuing their studies at a grammar school than low-SES students with comparable abilities (Dumont et al., 2019).

An important medium of school-based parental involvement is provided by parental networks. In disadvantaged neighbourhoods, parents maintain a poorly integrated network lacking close contact. More integrated parental networks provide participants with better emotional and institutional support (schools may gain more resources from the collaboration), which help parents be more constructively involved in their children's progress at school. Participants in formally integrated parental networks have more extensive and more accurate information on the education system and on the available educational tracks, which may compensate for SES-related disadvantages (Li & Fischer, 2017). Posey-Maddox (2012) found that middle-class parents were able to efficiently utilize their social networks to support their children even in relatively disadvantageous social contexts.

STUDY

Data obtained in the 2018 National Assessment of Basic Competencies in Hungary were subjected to a secondary analysis focusing on the relationship between students' competencies and parental involvement, the latter based on school directors' perceptions of parents' active contact with, and expectations for the school.

These two aspects of parental involvement were assessed with two respective items of the questionnaire administered to representatives of school establishments (TE045, TE059). Importantly, the analyzed responses reflected institutional perceptions of the intensity of contact with parents and of the level of parental expectations for the school. Furthermore, the analyzed responses were obtained from school directors and not from students; therefore the data provided a general picture of teachers' perceptions of the mentioned two aspects of the parent-school relationship, that is, of the intensity of parental involvement. The analyzed data were aggregated for each school establishment. School directors responded to the following questions concerning the school establishment where they worked:

a) Estimate the PERCENTAGE OF PARENTS in each of the below groups whose children attend your primary school / grammar school / specialized school etc.

- o Have very intense contact with the school
- o Have no contact with the school
- o Unemployed
- o Pensioners

    o Graduates

Responses were divided into the following intervals: 0 to 20%, 21 to 40%, 41 to 60%, 61 to 80%, and 81 to 100%.

   b) Select one of the below descriptions which best describes parent's expectations towards education at your primary school / high school / vocational high school etc.

      o Many parents continuously expect our school to set high performance requirements and ensure that students meet these requirements.

      o A relatively small group of parents expect our school to set high performance requirements.

      o Practically no parent expects our school to set high performance requirements.

In this case, the director of each school establishment was asked to select one response. The original data summarized in the below figures are not presented here due to the large size of the tables, which are available at the home page of the journal: PSYC_HU [4].

    It had to be taken into account that individual school establishments might offer a variety of programmes, therefore the analyzed data were also broken down by school establishment.

Hypotheses

In our study the degree of parental school involvement was examined according to the questionnaire of headmasters. The rate of active and inactive parents was analyzed in relation with the headmasters' perceptions.

    Parental involvement, activity and expectations were hypothesized to differ according to regions, types of schools and grades. However, no difference was expected between the two measurements.

Results

We supposed that the degree of parental activity differs according to regions, year of measurement and types of school.

    Four categories (2x2) were formed in relation with of parental activity: very active parents, less active parents, very passive parents and less passive parents because two questions referred to parental activity in the questionnaire.

    Most of the parents got in one of the moderate category (less active or less passive) according to the headmasters' perceptions. On the other hand, typically active or passive parents are dominant in a school except for the 4-year high schools where in significant rate both types – active and passive – of parents were perceived by the headmasters. So the rate of very active parents (res=-20,2) and very passive parents (res=-49,6) is lower than it could be expected in independent case. It means that in this type

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[4] http://www.kre.hu/portal/index.php/kiadvanyok/folyoiratok/psychologia-hungarica-caroliensis.html

of schools the parents' attitudes toward the school are quite moderate: they are neither too active, nor too passive (Table 2 and Table 3).

Parent's activity		Active				Passive			
		Most active 1/3		Less active 2/3		Less passive 2/3		Most passive 1/3	
		N	RES	N	RES	N	RES	N	RES
Year	2017	101 653	1,50	138 833	-1,50	157 176	-9,70	83 108	9,70
	2018	100 970	-1,50	139 139	1,50	160 171	9,70	79 830	-9,70
Sex	girl	101 667	5,00	137 455	-5,00	160 650	16,80	78 319	-16,80
	boy	100 956	-5,00	140 517	5,00	156 697	-16,80	84 619	16,80
Type of school	primary school	146 678	114,40	156 399	-114,40	208 725	54,40	94 124	-54,40
	8-grade high school	9 712	18,60	10 300	-18,60	17 487	65,00	2 525	-65,00
	6-grade high school	7 697	4,50	9 868	-4,50	14 343	44,40	3 222	-44,40
	4-grade high school	21 059	-20,20	34 110	20,20	41 597	49,60	13 507	-49,60
	vocational high school	15 128	-77,10	40 829	77,10	30 565	-60,90	25 392	60,90
	vocational school	2 349	-120,60	26 466	120,60	4 630	-184,80	24 168	184,80
Grade	6. grade	82 046	68,70	85 947	-68,70	117 610	42,80	50 255	-42,80
	8. grade	75 505	53,60	83 112	-53,60	111 091	41,20	47 426	-41,20
	10. grade	45 072	-124,30	108 913	124,30	88 646	-85,20	65 257	85,20
Region	Budapest	39 500	33,30	43 937	-33,30	61 965	55,20	21 433	-55,20
	Middle Hungary	21 230	-18,30	33 854	18,30	36 833	4,90	18 140	-4,90
	Middle Transdanubia	20 503	-7,00	29 857	7,00	32 491	-7,80	17 866	7,80
	Western Transdanubia	21 918	18,80	25 524	-18,80	33 908	26,20	13 534	-26,20
	Southern Transdanubia	18 728	6,60	24 155	-6,60	27 517	-8,60	15 340	8,60
	Northern Hungary	22 065	-24,80	36 884	24,80	34 071	-44,90	24 812	44,90
	Northern Great plain	34 245	-1,50	47 433	1,50	50 087	-31,10	31 526	31,10
	Southern Great plain	24 434	-10,40	36 328	10,40	40 475	3,00	20 287	-3,00

Table 2 The number of 1/3rd of most active, and most passive, 2/3rd of less active and less passive parents

Parent's activity		Active	Passive
Year	2017	▬	▬
	2018	▬	▬
Sex	girl	▬	▼
	boy	▬	▲
Type of school	primary school	▲	▼
	8-grade high school	▲	▼
	6-grade high school	▬	▼
	4-grade high school	▼	▼
	vocational high school	▼	▲
	vocational school	▼	▲
Grade	6. grade	▲	▼
	8. grade	▲	▼
	10. grade	▼	▲
Region	Budapest	▲	▼
	Middle Hungary	▼	▬
	Middle Transdanubia	▬	▬
	Western Transdanubia	▲	▼
	Southern Transdanubia	▬	▬
	Northern Hungary	▼	▲
	Northern Great plain	▬	▲
	Southern Great plain	▼	▬

Table 3 Parent's activity according to grades, sex, types of schools and regions

According to the analysis by measurement years, major differences (higher residuals than 10) cannot be found, which means there aren't significant differences in relation with the year of 2017 and 2018.

In connection with the analysis by gender the parents of boys seem to be less active (-16,8) than the parents of girls.

As mentioned above, the 4-year high schools have less very active and very passive parents as it could be expected (Figure 1). Perhaps it is a more important feature that primary schools represent the highest rate of activity (value of 114,4), while parents of vocational high school and technical college students are less active (77,1 and 120,6) and this rate is the highest among 8-year high schools (-18,6).

According to the regional analysis (Figure 2), parents are more active Budapest (res=33,3) and Western Transdanubia (res=18,8) contrary to Middle Hungary (res=-18,3), Northern Hungary (res=-24,8) and Southern Great plain (res=-10,4) where the

parents are less active. The lack of activity can be experienced in the higher rate of passive parents, e.g. Northern Hungary (res=44,9).

The pattern varies by year (Figure 3), as well, and as a matter of fact the 10th grade differs in this aspect, the rate of the most passive parents is the highest in this case (85,2), while the active parents are dominant in 6- and 8 grade high schools (68,7and 53,6).
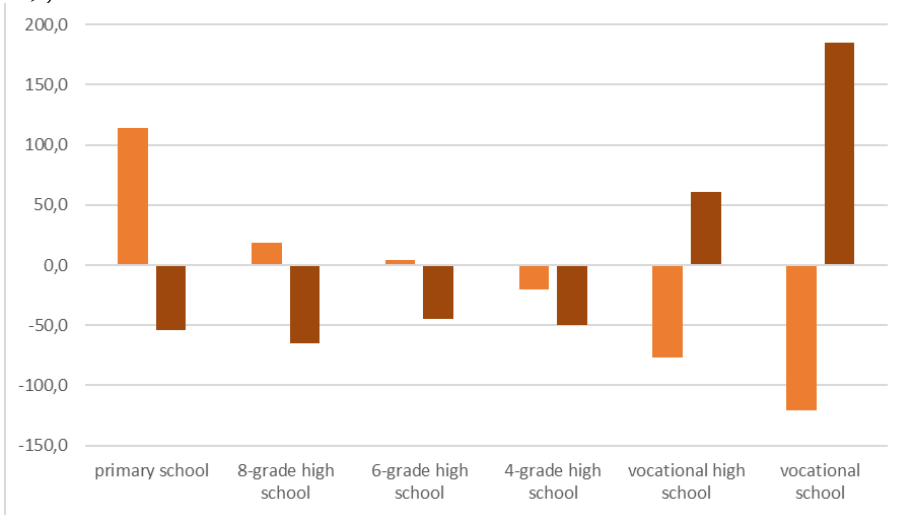

Figure 1 Residuals according to types of school in factors of active (ochre) and passive (brown)
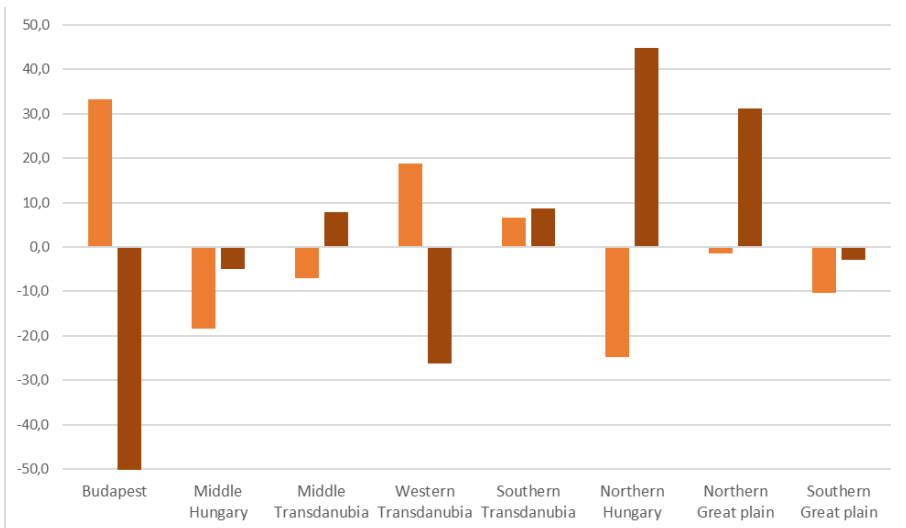

Figure 2 Residuals according to regions in factors of active (ochre) and passive (brown)
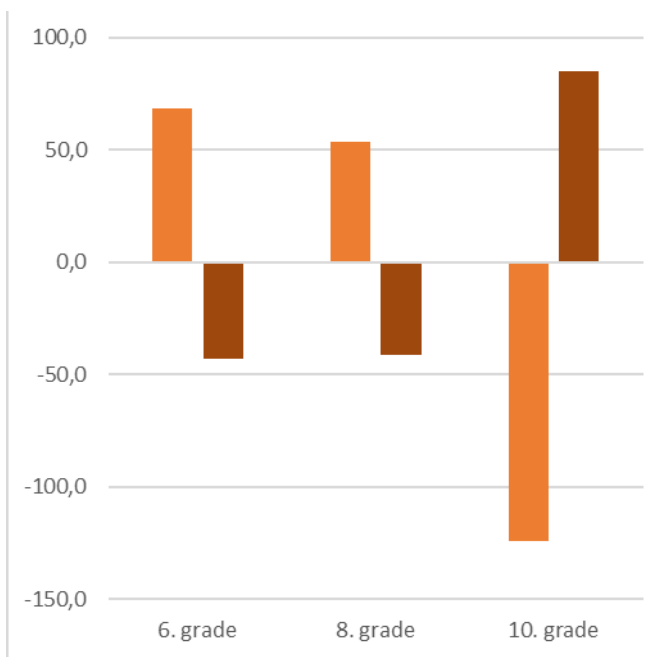
Figure 3 Residuals according to grades in factors of active (ochre) and passive (brown)

Parental expectations

Parental expectations are one of the most important factors of parental involvement that is why it was examined in our study. Major differences were expected according to regions and in other aspects (year of measurement, gender, types of school, grade). The crosstabs analysis proved our hypotheses, the results are significant (p<0,001) in every case.

The result of the analysis according to the measurement years shows that in 2018 the rate of those who were categorized as uncertain by the headmasters decreased, so in 2018 the headmasters could more accurately define the rate of parents with high expectations toward school, and it can be appointed that the rate of parents with high expectations is much higher (almost 5 times) than the rate of parents without expectations (Table 4).

It can be seen that the parents of girls have higher expectations (23,47), while it isn't the case for boys (-20,14).

In connection with the analysis by types of school, it can be said that almost every parent has at least minimal expectations toward school (res= -48,10 and -45,03). On the contrary the rate of parents without expectations is higher in vocational high schools and technical colleges than it could be expected in independent case (res= 54,28 and 226,3).

The tendency can be observed particularly in the analysis according to types of schools. The rate of parents with high expectations toward is definitely high among 6-

and –year high schools (residual above 20), while this kind of effect disappears by 10th grade (the residual is 118,83 regarding the rate of parents without any expectations).

Regionally examining, there are typically more parents with lower expectations in Northern Hungary and Northern Great Plain (64,24 and 34,00), the expectations are moderate in Southern Transdanubia and Southern Great Plain (27,64 and 17,54), and Middle Transdanubia (10,09). On the contrary, in Budapest, Middle Hungary and Western Transdanubia the parental expectations are definitely high (86,32; 10,72) 23,99) according to the headmasters' perceptions.

Parent's expectations		Higher expectations		Lower expectations		No expectations	
		N	RES	N	RES	N	RES
Year	2017	127 623	-5,28	93 735	10,11	23 273	-7,59
	2018	129 509	5,28	90 340	-10,11	24 862	7,59
Sex	girl	132 130	23,47	89 653	-11,81	21 870	-20,14
	boy	125 002	-23,47	94 422	11,81	26 265	20,14
Type of school	primary school	161 884	-2,11	125 674	58,28	21 198	-91,25
	8-grade high school	17 768	101,68	2 559	-75,24	0	-48,10
	6-grade high school	15 650	91,70	2 570	-66,84	17	-45,03
	4-grade high school	42 650	114,93	12 229	-83,93	1 832	-56,18
	vocational high school	17 620	-107,63	29 599	77,57	9 156	54,28
	vocational school	1 560	-165,61	11 444	7,00	15 932	266,30
Grade	6. grade	93 491	21,21	66 456	12,73	11 249	-56,27
	8. grade	89 286	26,37	62 438	10,17	9 949	-60,77
	10. grade	74 355	-48,28	55 181	-23,28	26 937	118,83
Region	Budapest	56 548	86,32	23 927	-64,78	5 321	-39,37
	Middle Hungary	31 252	10,72	21 242	-2,47	4 691	-13,96
	Middle Transdanubia	27 008	0,26	20 362	10,09	3 975	-16,85
	Western Transdanubia	27 754	23,99	16 405	-16,64	3 912	-13,17
	Southern Transdanubia	19 942	-27,62	18 891	27,64	4 325	1,35
	Northern Hungary	24 882	-57,74	24 770	20,02	10 283	64,24
	Northern Great plain	38 291	-38,61	33 423	18,90	10 765	34,00
	Southern Great plain	31 455	-6,87	25 055	17,54	4 863	-17,02

Table 4 Distribution of parental expectations according to sex, types of schools, grades and regions

SUMMARY

The present study focused on two aspects of school-based parental involvement including parents' activity and expectations toward school as reflected in aggregate data on school directors' perceptions.

Based on our previous study (Koltói et al., 2019) the activity of parents moderately correlates with academic achievement. Taking into account that we analyzed the headmasters' subjective perceptions, it can be only emphasized that the parental activi-

ty perceived and estimated by the headmasters can influence the achievement (more intensive parental involvement can lead to the increase of achievement inspired by headmasters). The positive association between academic achievement and parental involvement was better reflected in the findings on parental expectations, that is, students' performance increased with the level of expectations. These findings corroborate previous observations reported in the literature, which show that higher expectations on the quality of education are associated with higher school achievement (e.g., Yamamoto & Holloway, 2010). This relationship is probably a multifaceted phenomenon equally influenced by the child's abilities, the parents' aspirations, and the characteristics of the school and the programme.

In summary, the major findings are as follows:

a) Performance differences were primarily found across school types. This general relationship was reflected in school headmasters' responses concerning either expectations or contact.

b) Comparisons between the 2017 and 2018 assessments did not reveal any essential differences apart from those obtained for categories with a small number of cases.

Regarding gender differences, parents of girls show greater involvement than the parents of boys based on the two measurements, so the parents of girls are more active and have higher expectations toward school. Yamamoto and Holloway (2010) emphasize, there are differences in parental involvement according to the child's gender, the parents of boys rather pay more attention to the behaviour, while the parents of the girls focus on control and encouragement.

The analyses by type of school and grade reveal that the parents of primary school and high school students are the most active; they have high expectations toward school, especially in case of 6- and –year high school, while the parents of vocational high school, technical college students and 10 graders are the least active and they have no expectations. Two factors can play role in this result: the age of the child and the socioeconomic status. The degree of parental involvement decreases with age (Epstein 2001/2010; Yamamoto and Holloway, 2010). The parental involvement is highly affected by the parents' socioeconomic status, which means that parents of low socioeconomic status are less involved in their children' education and school activities (e.g. Baily, 2017; Hornby and Lafaele, 2011). The correlation of parental involvement, socioeconomic status and school types can be also observed, the most active parents are the ones of 6- and 8–year students who are generally of higher socioeconomic status. (Harsányi et al., 2019).

Concerning the regions, the parents living in the well-developed parts of the country are more active and have higher expectations toward school. It can also be explained by socioeconomic factors (pl.: Lareau 2002; Li and Fischer, 2017).

It has to be emphasized again that the assessment of intensity of parents' contact with the school was based on school directors' aggregate subjective responses, which were analyzed in relation to data on the overall educational outcomes of schools. The present study did not take account of parents' sociocultural background; only school

directors' subjective judgments on parental involvement were included in the analysis of students' performance.

BIBLIOGRAPHY

Bailey, T. (2017). The Impact of Parental Involvement on Student Success: School and Family Partnership From The Perspective of Students. *Doctor of Education in Teacher Leadership Dissertations.* 22.
http://digitalcommons.kennesaw.edu/teachleaddoc_etd/22

Bempechat, J., & Shernoff, D.J., (2012). Parental Influences on Achievement Motivation and Student Engagement. In Christenson, S.L. et al. (eds.), *Handbook of Research on Student Engagement,* 315 – 339. Springer Science+Business Media.

Castelman, B.C., Page, L.C. (2017). Parental Influences on Postsecondary Decision Making: Evidence From a Text Messaging Experiment. *Educational Evaluation and Policy Analysis,* 39(2), 361-377

Crosby, S.A., Rasinski, T., Padak, N. & Yildirim, K. (2015). A 3-Year Study of a School-Based Parental Involvement Program in Early Literacy, *The Journal of Educational Research,* 108(2), 165-172.

Deutschlander, D. (2019): Enhancing Engagement With Faculty and Staff to Facilitate Student Success: An Evaluation of a Parent Intervention. *Educational Evaluation and Policy Analysis,* 41(3), 239-259.

Dumont, H., Klinge, D., & Maaz, K. (2019). The Many (Subtle) Ways Parents Game the System: Mixed-method Evidence on the Transition into Secondary-school Tracks in Germany. *Sociology of Education,* 92(2), 199–228.

Epstein, J. (2010). *School, family, and community partnerships: Preparing educators and improving schools.* Boulder, CO: Westview Press.

Gil-Hernandez, C.J. (2019). Do Well-off Families Compensate for Low Cognitive Ability? Evidence on Social Inequality in Early Schooling from a Twin Study. Sociology of Education, 92(2), 150–175.

Harsányi, G., Koltói, L., Kovács, D., Kövesdi, A., Nagybányai-Nagy, O., Nyitrai, E., Simon, G., Smohai, M, Takács, N., & Takács, Sz. (2019). Születni tudni kell? - Az országos kompetenciamérés eredményeinek vizsgálata A Szülők munkájának rendszeressége, Az észlelt társadalmi helyzet és A lakókörnyezet vonatkozásában. *Psychologia Hungaria,* 7(2), 64–85.

Hill, N.E., & Taylor, L.C. (2004). Parental School Involvement and Children's Academic Achievement. *Current Directions in Psychological Science,* 13(4), 161 – 164.

Koltói L., Harsányi G., Kovács D., Kövesdi A., Nagybányai-Nagy O., Nyitrai E., Simon G., Smohai M, Takács N., & Takács Sz. (2019). A szülők tanulmányokba való bevonódásának összefüggése az iskolai teljesítménnyel. *Psychologia Hungaria,* 7(2). 64–85.

Lareau, A., (2002). Invisible Inequality: Social Class and Childrearing in Black Families and White Families. *American Sociological Review,* 67, 747-776.

Li, A., Fisher, M.J. (2017): Advantaged/Disadvantaged School Neighborhoods, Parental Networks, and Parental Involvement at Elementary School. *Sociology of Education,* 90(4), 355–377.

McGuire, W.J. (2001): *Makacs nézetek és a meggyőzés dinamikája.* Budapest: Osiris Kiadó

T. Kárász, J. (2019a): Hibabecslési eljárások véletlen jelenségek paramétereinek becslésére, *Psychologia Hungarica Caroliensis,* 7(2), 104-114.

T. Kárász, J. (2019b). Estimation methods on standard error of different statistical parameters, *Psychologia Hungaria Caroliensis,* 7(2), 213-220.

Wilder, S. (2014). Effects of parental involvement on academic achievement: A meta-synthesis. *Educational Review,* 66(3), 377–397.

Yamamoto, Y., Holloway, S.D. (2010): Parental Expectations and Children's Academic Performance in Sociocultural Context. *Educ Psychol Rev,* 22, 189–214.