## THE RELATIONSHIP BETWEEN SCHOOL ACHIEVEMENT AND PATERNAL INVOLVEMENT IN CHILDREN'S SCHOOL ACTIVITIES AS JUDGED BY HEADMASTERS IN THE 2017 NATIONAL ASSESSMENT OF BASIC COMPETENCIES (NABC)

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## Abstract

Parents' involvement into their children's learning process can be explained in different ways. It is one of the most important parental tasks, and parents are expected to help children with their studies. On the other hand, when children succeed due to the parental help, it increases the parents' perceived self-efficacy. Besides schools play important role in parents' involvement, if they invite, ask or demand parents to engage in school and/or learning affairs, these acts probably truly increase their involvement (Avvisati et al.). Involvement means higher aims and expectations as well. According to research results, higher parental expectations correlate with higher achievement (Yamamoto & Holloway, 2010). In our study, the relationship of parental involvement and student achievement is examined in two aspects: parent – school relationship and parental expectation toward school on the sample of the National Assessment of Basic Competencies (NABC). Our results prove the correlation within certain limitations.

**Keywords**: parental involvement • parental expectations • assessment of competencies • academic achievement

#### INTRODUCTION

Poor school performance, lack of involvement, and dropout pose a serious challenge to education in many countries. Since families' socioeconomic status (SES) largely determine students' school performance (e.g. Manstead, 2018; Hegedűs, 2016; Kraus & Stephens, 2012; Csapó, Molnár & Kinyó, 2009), those students are at the highest risk who live in an environment with low financial

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and social status. Poor families generally live in an environment exposing them to higher levels of uncertainty and threat, where the quality of available services and public education is lower, the latter including teachers' lower level of education and higher fluctuation rate (Hegedűs, 2016; Bempechat & Shernoff, 2012; Kraus & Stephens, 2012). Since parents' attitudes, values and behaviour have special importance, the present study focuses on parental involvement in children's progress at school. Coleman (1988) underlines the importance of the quantitative and qualitative aspects of the parent-child relationship, that is, parents' availability and attention to their children.

# EXPLANATIONS FOR THE IMPACT OF PARENTAL INVOLVEMENT ON SCHOOL PERFORMANCE

Parental involvement is the extent and quality of parents' support for children in doing their homework, communicating with teachers and participating in school activities, and of children's provision with a cognitively facilitating environment (Yamamoto & Holloway, 2010). In general, the relationships between those playing a key role in students' school progress and psychosocial development have decisive importance (Bempechat & Shernoff, 2012). Previous studies have identified three major areas where parental involvement essentially influences children's development: homework (using cognitive and motivational socialization strategies) parenting style (positive effects of Baumrind's dominant parenting styles on competency development), transmission of educational values (Bempechat & Shernoff, 2012). Parents as rational decision makers transmit their community's knowledge about the adaptation in their cultural context to their children (Yamamoto & Holloway, 2010). In a three-phase study based on interviews with, and observations of, 8 to 10-year-old American children and their parents, Lareau (2002) found that middle-class parents and working-class or poor parents showed different patterns of parenting, different "cultural logics", and different attitudes towards their children's development, irrespective of ethnicity. Children from families with a lower status may suffer disadvantage in terms of school performance because their parents' socialization practices are inconsistent with institutional practices, while higher-status children's parental and institutional socialization largely overlap (Lareau, 2002).

Following Lareau's assumptions, Mayo and Siraj (2015) conducted a longitudinal study using both qualitative and quantitative methods, which focused on how and why some low-SES families were able to provide an environment for children that compensated for disadvantageous economic and social conditions. Mayo and Siraj (2015) completed the two parenting strategies proposed by Lareau with the so-called active cultivation, which is a socialization strategy employed by parents who are able to facilitate their children's progress at school.

## PARENTAL EXPECTATIONS AND SCHOOL PERFORMANCE

Several studies revealed a relationship between high parental expectations and children's good school performance, high motivation and intention to continue studies (Yamamoto & Holloway, 2010). High parental expectations moderate the negative impact of low SES (Mayo & Siraj, 2015, Froiland & Davison, 2014) and teachers' low expectations (Pepe & Addimando 2014; Yamamoto & Holloway, 2010). The Expectancy-Value Theory (Eccles & Wigfield, 2002) offers an explanatory framework for the decisive importance of parents' involvement in their children's school performance. Children's beliefs and interpretations are influenced by parents' behaviour and beliefs, who are the most important socialization agents, and by the cultural milieu surrounding children (Eccles & Wigfield, 2002). The relationships between parents, children and the school are largely determined by families' SES primarily because low-status parents' school failure leads them to develop distrust towards the school (Mayo & Siraj, 2014; Lareau, 2002). Finally, parents whose perceived self-efficacy is low do not believe they can adequately support their children in learning. The authors also point out in their meta-analysis that parental expectations are positively related to the extent of parental involvement, and that high parental expectations and involvement are associated with teachers' higher expectations (Yamamoto & Holloway, 2010).

## CURRENT INTERNATIONAL STUDIES IN THE FIELD

Several studies examined the impact of parental expectations on school achievement. Froiland and Davison (2014) analyzed the effects of several factors on school achievement in a sample of American adolescents. They found that parental expectations had the strongest impact on school performance, well ahead of the parent-school relationship, SES, ethnicity and family structure. Kaplan, Toren and Seginer (2015) conducted a longitudinal study with a sample of Israeli students focusing on the relationship between perceived parental involvement and students' perceived self-efficacy and school performance. Another longitudinal study involving American primary school students examined the school-related aspects of parental involvement (Li and Fischer, 2017). Pepe and Addimando (2014) analysed the types of counterproductive parental behaviour according to parents' gender and level of education. Shadach and Ganor-Miller (2013) also focused on negative aspects of parental involvement.

#### CURRENT HUNGARIAN STUDIES

A common aspect of the expectations of families and schools is that both require children to regulate their emotions and behaviour autonomously, that is, schoolchildren are expected to show thoughtful behaviour, to learn autonomously, and to realize their potential. Éva D. Molnár (2015) refers to this observation when emphasizing the importance of research on self-regulated learning. The author conducted a study with Hungarian fourth-grade students in order to identify the major family and school-related factors influencing self-regulated learning. Judit Lannert and Júlia Szekszárdi conducted a large-sample online survey in 2013 focusing on the forms and characteristics of the contact between parents and teachers.

A Hungarian study with gifted young individuals has shown that parents' involvement is of high importance in talent development programs (Bagdy, Mirnics, & Kövi, 2014; Bagdy, Kövi, & Mirnics, 2014). Another Hungarian study has found that parents' involvement into their children's learning and good relation with teachers are protective factors against substance abuse (Grezsa et al., 2015; Grezsa and Surányi, 2014; Kövi et al., 2016).

#### STUDY

Data obtained in the 2017 National Assessment of Basic Competencies (NABC) were subjected to a secondary analysis focusing on the relationship between students' competencies and parents' active contact with, and expectations towards, the school (as reported by headmasters).

Two sets of responses obtained from representatives of school establishments (TE045, TE059) were analysed, which reflect institutional expectations on parents' willingness to have regular contact with the school and parents' expectations towards the school as appraised by school representatives. Importantly, the analysed responses were obtained from headmasters and not from students; therefore the data provided a general picture of headmasters' perception of the intensity of parents' contact with teachers and their involvement in teachers' work at school. The analysed data were aggregated for each school establishment. Headmasters responded to the following questions concerning the school establishment where they worked:

- Estimate the PERCENTAGE OF PARENTS in each of the groups below whose children attend your primary school / high school / specialized school etc.
  - Have very intense contact with the school
  - Have no contact with the school
  - Unemployed

- Pensioners
- Graduates

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

- Select one of the descriptions below which describe best parent's expectations towards education at your primary school / high school / specialized school etc.
- Many parents continuously expect our school to set high performance requirements and ensure that students meet these requirements.
- A relatively small group of parents expect our school to set high performance requirements.
- 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 figures below are not presented here due to their large size. Data are available at the home page 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.

## PARENT-SCHOOL RELATIONSHIP

The intensity of the relationship was analysed according to the headmasters' perceptions about their schools that is why the data are shown by school establishments. In this question the results of children of the two extreme types of parents – the very active relationship managers and those who have no contact with the school – were analysed.

## Eighth-grade sample

The results were obtained and analysed on three subsamples: on primary school students, 6- and 8-grade high school students. The results show that there is no difference in the primary school students' achievement neither in mathematics, nor in reading concerning the percentage of the parents who are *very active relationship managers*. The same pattern can be seen in the sample of the 6-grade high school students, but the 8-grade high school students' results are a little bit different. The girls' and boys' achievement is the lowest in both areas in the category of the highest percentage of the very active parents (81 – 100%).

<sup>&</sup>lt;sup>2</sup> http://www.kre.hu/portal/index.php/kiadvanyok/folyoiratok/psychologia-hungaricacaroliensis.html



Figure No. 1: 8<sup>th</sup> graders Mathematics TE02901, Estimated percentage of parents who have very intense contact with the primary school



Figure No. 2: 8<sup>th</sup> graders Reading TE02901, Estimated percentage of parents who have very intense contact with the primary school



Figure No. 3: 8<sup>th</sup> graders Mathematics TE04501, Estimated percentage of parents who have very intense contact with the high school



Figure No. 4: 8<sup>th</sup> graders Reading TE02901, Estimated percentage of parents who have very intense contact with the high school

The students' achievements according to the rate of the *parents, who have no contact with the school,* show the same pattern in both areas. The subsample of the primary school students reveals the same trend, i.e. the higher the rate of the parents who have no contact, the lower the students' achievement becomes in both areas and in both sexes. As the diagrams show, the rates of the parents of the 6- and 8-grade high school students are very low in the no contact category.



Figure No. 5: 8<sup>th</sup> graders Mathematics TE02902, Estimated percentage of parents who have no contact with the primary school







Figure No. 7: 8<sup>th</sup> graders Mathematics TE04502, Estimated percentage of parents who have no contact with the high school



Figure No. 8: 8<sup>th</sup> graders Reading TE04502, Estimated percentage of parents who have no contact with the high school

## Tenth-graders' results – High school

There is no or very little difference in students' achievements regarding the rate of the very active relationship managers in both areas. The 6-grade high school boys' mathematics and reading results have a minimal ascending tendency with the ascending rate of the very active relationship manager parents. The case number must be emphasised: the results of the eight grade high school boys and girls (though the difference seems to be minimal) can be estimated with large standard error when the rate of the parents who have very active contact with the school is high (81 - 100%). So conclusions about this field should be drawn carefully.



Figure No. 9: 10<sup>th</sup> grader boys Mathematics TE04501, Estimated percentage of parents who have very intense contact with the high school



Figure No. 10: 10<sup>th</sup> grader girls Mathematics TE04501, Estimated percentage of parents who have very intense contact with the high school



Figure No. 11: 10<sup>th</sup> grader boys Reading TE04501, Estimated percentage of parents who have very intense contact with the high school



Figure No. 12: 10<sup>th</sup> grader girls Reading TE04501, Estimated percentage of parents who have very intense contact with the high school

Concerning the rate of parents who have no contact with school the three types of high schooling forms actually show the same pattern in both areas and in both sexes. However, it should be noted that the means of the three schooling forms exceed the national mean of 1500 points (with even one standard deviation, and assuming that the differences can be even bigger), and take place in the upper region of the total national performance.

The results of the 4-grade high school boys and girls in mathematics and reading seemingly decrease with the increasing rate of parents who have no school contact, but this decrease is very small. Which is worth highlighting is that 4-grade high school students perform at the lowest level in this category independently of the intensity of the school – parent relationship, while the results of 6– and 8-grade high school students are above the national mean with minimum one standard deviation in both mathematics and reading.

It must be mentioned that standard error of the estimates is high because of the response frequencies in many cases (due to very limited responses from the headmasters in some categories), therefore the conclusions about the students' achievements should be drawn very carefully.



Figure No. 13: 10th grader boys Mathematics TE04502, Estimated percentage of parents who have no contact with the high school



Figure No. 14: 10<sup>th</sup> grader girls Mathematics TE04502, Estimated percentage of parents who have no contact with the high school



Figure No. 15: 10<sup>th</sup> grader boys Reading TE04502, Estimated percentage of parents who have no contact with the high school



Figure No. 16: 10th grader girls Reading TE04502, Estimated percentage of parents who have no contact with the high school

#### Tenth-graders' results - Vocational high school and technical college

The results of the vocational high school and technical college students are more diverse. The maths results of boys and technical college girls show a moderate ascending tendency with the increasing rate of the parents who have active contact with the school. This ascending tendency can also be observed in the case of vocational high school girls up to the category of the highest rate of the active relationship managers, (81-100%), where the results fall back, and they are actually the lowest here. The reading results also show a moderate ascending tendency in the case of vocational high school boys and girls, but not in the case of technical college students. The pattern that the reading results increase with the rate of the parents' involvement up to the highest rate category (81–100%) where a fall back can be seen stands out more in the case of girls (their achievement is the lowest here), but it can be observed in case of boys, too. On the whole, it is important to note that the results of the vocational high school and technical college students both in mathematics and in reading is much lower than of secondary school students.



Figure No. 17: 10<sup>th</sup> grader boys Mathematics TE05901, Estimated percentage of parents who have very intense contact with the vocational high school or technical college

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Figure No. 18: 10<sup>th</sup> grader girls Mathematics TE05901, Estimated percentage of parents who have very intense contact with the vocational high school or technical college



Figure No. 19: 10<sup>th</sup> grader boys Reading TE05901, Estimated percentage of parents who have very intense contact with the vocational high school or technical college



Figure No. 20: 10<sup>th</sup> grader girls Reading TE05901, Estimated percentage of parents who have very intense contact with the vocational high school or technical college

The mathematics and reading performance have a moderate descending tendency with the increase of the rate of parents with no contact in case of vocational high

school students, while the results of the technical college students do not differ in relation to the rate of parents with no school contact.



Figure No. 21: 10<sup>th</sup> grader boys Mathematics TE05902, Estimated percentage of parents who have no contact with the vocational high school or technical college



Figure No. 22: 10<sup>th</sup> grader girls Mathematics TE05902, Estimated percentage of parents who have no contact with the vocational high school or technical college



Figure No. 23:. 10<sup>th</sup> grader boys Reading TE05902, Estimated percentage of parents who have no contact with the vocational high school or technical college

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Figure No. 24: 10<sup>th</sup> grader girls Reading TE05902, Estimated percentage of parents who have no contact with the vocational high school or technical college

#### Parental expectations

The question refers to the headmasters' perceptions about the strength of the parental expectations toward education. The students' achievements are analysed according to the level (low, medium and high) of the parental expectations.

#### Sixth-graders' parents

The sixth graders' results show ascending tendency; they perform better when the parents' expectations are high. From another aspect it is worth mentioning that according to the headmasters' views, i.e. if they perceive the parental expectations high (it must be emphasised that the headmasters' perceptions are analysed and not the parents' responses, and the headmasters' perceptions are general and subjective, and refer to the totality of the students in the establishment questionnaire), it correlates with the students' high achievements. It should be highlighted that it cannot be proved that the perceptions make the school work harder and better (due to the general, aggregated data), it is also possible that the parental expectations increase with the students' achievement level. There can be other explanations too, for example the families' socioeconomic status.



Figure No. 25: 6th graders Mathematics TE03001, Parent's expectations towards education at primary school





## Eighth-graders' parents

The results of the eighth graders are analysed on two subsamples, of primary school students and high school students. Other types of schooling are also indicated in the given diagrams based on the aggregated data of the establishments in order to make comparisons.

The parental expectations correlate with the level of the students' achievement in the subsample of the primary school students, as it can be seen in the example above. Boys seem to perform better in mathematics, while girls' achievement is better in reading.

The pattern is the same in the subsample of high school students, the difference is that the parental expectations are basically higher in the case of 6- and 8-grade secondary school students. It is generally supposed due to the entrance exam which precedes the entrance to the secondary school, which increases the parental expectations. The children of parents with high expectations do not differ in achievement in the subsamples of 6- and 8-grade.



Figure No. 27: 8<sup>th</sup> graders Mathematics TE03001, Parent's expectations towards education at primary school



Figure No. 28: 8<sup>th</sup> graders Reading TE03001, Parent's expectations towards education at primary school



Figure No. 29: 8<sup>th</sup> graders Mathematics TE04601, Parent's expectations towards education at high school



Figure No. 30: 8th graders Reading TE04601, Parent's expec-tations towards education at high school

## Tenth-graders' parents

The same pattern can be observed in both areas and in both sexes in the subsample of the high school students. All the three types of schooling show ascending tendency referring to the parental expectations, so those children perform higher whose parents have higher expectations toward the school (as to the headmasters' perceptions). On the whole it can be stated that the higher expectations correlate with better results.



Figure No. 31: 10<sup>th</sup> grader boys Mathematics TE04601, Parent's expectations towards education at high school



Figure No. 32: 10<sup>th</sup> grader girls Mathematics TE04601, Parent's expectations towards education at high school



Figure No. 33: 10<sup>th</sup> grader boys Reading TE04601, Parent's expectations towards education at high school



Figure No. 34: 10<sup>th</sup> grader girls Reading TE04601, Parent's expectations towards education at high school

The ascending tendency appears very moderately in the subsample of technical college students in relation to the parental expectations. The tendency is more apparent in the subsample of vocational high school students; in the case of high parental expectations the achievement is minimally higher.



Figure No. 35: 10<sup>th</sup> grader boys Mathematics TE06001, Parent's expectations towards education at vocational high school or technical college



Figure No. 36: 10<sup>th</sup> grader girls Mathematics TE06001, Parent's expectations towards education at vocational high school or technical college



Figure No. 37: 10<sup>th</sup> grader boys Reading TE06001, Parent's expectations towards education at vocational high school or technical college



Figure No. 38: 10<sup>th</sup> grader girls Reading TE06001, Parent's expectations towards education at vocational high school or technical college

### SUMMARY AND CONCLUSIONS

The assessment of intensity of parents' contact with the school and parental expectations was based on headmasters' aggregate subjective responses, which were analysed in relation to aggregate data on educational outcomes. The major findings are as follows:

- 1) The results suggest that parents' willingness to have frequent contact with the school as perceived (or expected) by headmasters may result in students' increased school performance (i.e. more intense parental involvement may increase performance motivated by headmasters; e.g. Bempechat & Shernoff, 2012).
  - a. The analysis of the achievement concerning the rate of parents who have very intense contact and no contact with school reveals the same trend in the subsample of primary school students, vocational high school students and technical college students: the achievement moderately increases with the intensity of parents' contact. Students' better general performance enables parents and teachers to have contact in a more relaxed manner (an unproblematic relationship is more likely to develop in cases when not the student's difficulties are the primary subject of discussion).
  - b. The subsample of high school students shows a little different pattern: there is no or very little difference in students' achievements regarding the rate of the very active relationship managers in both areas. However, the 8-grade high school students' achievement is the lowest in both areas in the category of the highest percentage of the very active parents (81 100%) in the 8<sup>th</sup>-graders' subsample. Probably the parents' concerns

about their children lower academic performance make the contact with school more intense.

- 2) The parental expectations correlate with the level of the students' achievement, so those children perform higher whose parents have higher expectations toward the school according to the headmasters' perceptions. Higher parental expectations were obtained for 6 and 8-year high schools, since these schools admit students from 8-year primary schools only if they meet the criteria of a special admission procedure which justifies parents' higher expectations on the quality of education.
- 3) The findings on parental expectations corroborate previous observations reported in the literature, which show that higher expectations on the quality of education are associated with higher school performance (e.g. Yamamoto & Holloway, 2010).
- 4) School type affects the school performance and competency levels (8<sup>th</sup> and 6th grade high school students perform the best), and headmasters' responses concerning either expectations or contact show the covariations predicted by the literature (Manstead, 2018; Kraus and Stephens, 2012, Csapó, Molnár and Kinyó, 2009).

It has to be emphasized that the analysis did not take account of parents' background but it only focused on headmasters' subjective perceptions concerning school establishments and their importance in students' general mathematical and reading literacy. However, the parental involvement (either parents' intense contact with the school, or high expectations) does not mean a linear causal relationship with the level of students' competencies; it can be one of the important factors which influence the students' academic achievement.

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