

Family and Young Learners' Scholastic Success

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Abstract—This contribution examines the relationship between the family environment and the level of young pupils' scholastic success. It comments on the partial results of a research probe carried out in the year 2012 on a sample of 412 Czech Republic primary school pupils of the fourth, fifth and sixths forms within the Project IGA 43 201 15 0004 01. The key links of this project were monitored in relation to the highest education level achieved by the learners' parents, as well as to the type of family it is (in particular its ability to function), to component factors specific to the family climate (their willingness to share information, communication, parental control) and, finally, to the number of children in the family as an important socialization constituent.

Keywords—Family environment factors, scholastic success, parents' education, family type, family climate.

I. SCHOLASTIC SUCCESS CIRCUMSTANCES

SOME authors [6] refer to the presence of insufficient prerequisites with regard to academic proficiency (IQ, the ratio of verbal and mathematical abilities, special orientation, etc.), memory (mechanical/logic), the child's attention level, motivation (what stimulates the pupil for school work, how high his aspirations are, what his performance motivation is—the achievement of performance and thus avoidance of failure), the pupil's conception of self or self image. According to these authors the family plays a not negligible role in the child's school results apart from the learner's personality features. In particular, it is a matter of the degree of importance the family attributes to school results and education. Important is also the parents' strategy leading to their children's education or their acceptance OF or reaction to their child's possible failure at school.

In connection with children's learning difficulties we consider it to be important to distinguish whether this is the child's absolute lack of scholastic ability (insufficiently developed intellectual abilities) or relative scholastic disability in which case, the origins belong to a sphere beyond the child's intellect, which can in the majority of cases, be removed. The cases of intellectually defective individuals occur within the population as a whole at around the 3% level. In his works, Kohoutek [10] distinguishes relative school failure according to three main causes:

- **Social and psychological causes** include the following insufficiencies:
 - the family environment (i.e. the parents' social and professional placement, the housing situation, the family cultural level, access to their child's education, language culture and the family environment, inappropriate types of

- education, psychological and emotional deprivation, conflict situations within the family, the family climate),
- the school environment (errors in the educational process, violation of pedagogical principles, shortcomings in the teacher- learner and the student–peer interaction, insufficient adherence to ergonomic principles, conflicts in cooperation between school and parents, etc.)
- **Biological and psychological causes** are associated with a small capacity of cognitive processes due to (as a result of) the pupils' lingering neuropsychological immaturity for school, with the developmental stages, physical and psychological changes, the fidgety child, perceptual and locomotor defects, sensory and speech defects, ill-defined laterality, neuropsychological or affective lability, acute diseased processes, bad diet, etc.
- **The internal psychological causes** which are characterized by the pupil's negative approach to learning, insufficient school motivation, the pupil's negative relationship to the teacher, hypobulia, intellectual passivity, defects in the conception of self or self - image., etc.

II. FUNCTIONALITY OF THE FAMILY

For the healthy development of an individual and his successful socialization, according to Helus [8], it is necessary to maintain the following ten social and psychological family functions:

- 1) The family satisfies some basic or primary needs of the child in the early stages of its development. These are biological and psychological needs – food, drink, movement; early psychological need for security, a regular rhythm of life, love, adequate quantity and intensity of incentives.
- 2) The family satisfies the need for the child's organic .appropriateness: the necessity to have a home, to have “one's own human being” – i.e. to have one's own mother, one's own father, and to identify oneself with him /her , to be aware of one's belonging to reliable and affectionate interpersonal relations, which is the basis for the child's development. It is necessary to be aware of its belonging to reliable people and for this to manifest itself in its contact with them.
- 3) Since the child's earliest age the family has been providing space for activity, or space for the manifestation of the child's activity, the child's act of self-realization and cooperation with other people. The child experiences the awareness of its own being- it, becomes aware of the fact that “I am and I act”, “I can or I am able to and I can manage to do so.”

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- 4) The family introduces the child to the relationship with objects from the family equipment, apparatuses and tools, pretty and valuable objects. The child becomes a witness as to how objects are handled, how they are bought, preserved, repaired, how important we consider them to be. Then the child's personal things are excluded, the concepts of "I've got" and "We've got" are created.
- 5) The family significantly determines the initial experience and the feelings of the pupil himself/herself (as a boy/a girl). The pupil then places a gender content with a self-conception or image. A significant role here is played by the model of Mother and Father, or that of Grandmother and Grandfather, as well as by the pupils' experience with their siblings.
- 6) The family provides the child with immediately influential patterns and examples. The child learns to detect personality in another man and has the desire to become a personality itself.
- 7) The family establishes, maintains, strengthens and further develops the child's awareness of its duty, accountability, thoughtfulness and respect as something it can take for granted.
- 8) The family opens the opportunity for a child to enter into integral relationships and thus penetrate more deeply into an understanding of people of different ages, character and social position.
- 9) By means of parents, grandparents, older siblings, relatives and friends the family instigates the concept of a wider environment, that of the society and of the world. With the assistance of the whole family the child becomes aware of the world of civil duties, problems and temptations.
- 10) For both children and adults, the family is an environment they can confide in, or an environment in which they can expect a wise audience, from which they can get a piece of advice and assistance – it is a pleasant haven during a moment of helplessness.

III. METHODOLOGICAL POINTS OF DEPARTURE

The research probe was carried out in autumn 2012 at 11 primary schools in the Czech Republic. Its main aim was to predict the characteristic features of Czech families that would be significant for the primary school learners' positive achievements (ISCED1) and to verify them statistically. The basic forecasting characteristics of the families included for example the type of the family with the level of education achieved by the parents, the level of sharing and communication within the family, the number of siblings, etc. These characteristic features have been monitored in relation to the school results achieved in the half-year classification in the third, fourth and fifth forms of primary schools. From the research point of view, the pupil considered to be successful was the one who was assessed only with the grades 1 and 2 on the school report. The model-like simplification of the scholastic success rate applied to the achievement of good grades enabled the researchers to look for key links to the family background by means of the quantitative method of the

questionnaire survey. The answers were structured according to the four-degree Lickert scale: never, occasionally, often and always. The sums in tables differ according to the number of valid answers in the returned questionnaires. The tests of significance, in particular the Chi-test have been used to prove the relation between the dependant variable - school success – and the tested independent/arbitrary variables. The standard 5 % level of significance has been selected (significant under the condition that $p < 0.05$).

IV. PARTIAL RESEARCH RESULTS

This research monitored 412 pupils of the young school age, 27% of whom were pupils of the fourth forms, 36 % learners from the fifth forms and 37 % learners from the sixth forms. Altogether, it was 233 boys and 179 girls among whom 11-year-old pupils (nearly 38 %) and 10-year old pupils (32 %) were most frequently represented. The representation of the nine-year-old and the 12-year-old was approximately at the 50% level of the previous groups. By applying the entrance analysis it has been discovered that nearly 75 % of the sampling set of pupils live in complete families. This can be designated as an above-standard fact in the conditions of the Ústí Region since the demographic statistics shows that in 2002, which is the year of 10-year-old pupils' births, 42.1% children of the total number of live births were born outside of marriage(s). A year later, which is concerned with the group of 9-year-old pupils monitored by this research, the statistics registered 45.6 % of children born outside families and in this year it was even 56.1 %.

A. The Type of Family

As the above analysis has shown, it is not irrelevant, from the point of view of a qualified school performance, whether the pupil lives in a complete family or a family of a different type. It is evident that the complete family confirms, in all probability, the assumption of a well functioning family. At the same time, the balance between the individuality of "I" and the fellowship of "we" Minuchin, [13] is very important. Within the monitored sample, the Dunovsky's categorization [2] has been made use of and the families were distinguished as complete, incomplete, completed, foster or substitute and those of unmarried spouses. This division is clarified by the following tables:

TABLE I
TYPES OF FAMILIES

| | |
|--|--|
| Complete Family Pn=Pn Ch ChnChs | Incomplete Family Pn Ch ChnChs |
| Foster/Substitute Family Ps=Ps Ch ChnChs | Completed Family Pn = Ps Ch ChnChs |
| Family of Unmarried Spouses (a) PnPn Ch ChnChs | Family of Unmarried Spouses (b) PnPs Ch ChnChs |

Legend:

Ch ... Child, the schemata are created in relation to this child

Pn... Natural parents

Ps ... Step-parent

= ... concluded marriage

Chn... natural sibling (child)

Chs... step-sibling (child)

Although the complete family is not a 100% guarantee for scholastic success, it still reveals the best score on the basis of the carried out research probe – see Table II. A long-term absence of at least one of the parents who lovingly takes care of the child may influence the child more strongly than the family completeness or incompleteness. Provided that such a parent does not exist, the child is exposed to a derivational syndrome [12], which is projected even into the scholastic success.

TABLE II
THE TYPE OF FAMILY IMPACT ON THE PUPILS' SCHOLASTIC SUCCESS

| | C | I | A | F/S | RC | Total |
|-------|------|------|------|------|------|-------|
| Ps | 210 | 27 | 24 | 2 | 1 | 264 |
| % | 69.1 | 48.2 | 60.0 | 40.0 | 50.0 | |
| Pu | 94 | 29 | 16 | 3 | 1 | 143 |
| % | 30.9 | 51.8 | 40.0 | 60.0 | 50.0 | |
| Total | 304 | 56 | 40 | 5 | 2 | 407 |

Pearson Chi-square: 11.1468, p=0.024968

Legend:

Ps ... Number of Successful Pupils (later only Ps)

Pu ... Number of Unsuccessful Pupils (later only Pu)

C ... Complete

I ... Incomplete

F/S ... Foster/Substitute

RC ... Residential Care

This table demonstrates that in the monitored sample, in the complete families and in the case of the so-called alternative care, successful pupils prevailed over unsuccessful ones. In the case of complete families it was by 38% more, in the case of alternative care it was by 20% more. In the incomplete

family and in the case of the foster or substitute family care, we have registered the reverse conditions. Taking into account the incomplete families, we can consider the numbers of successful and unsuccessful pupils as equal. This research has statistically proved the influence of the family type on the subsequent scholastic success of the young pupil (measured by the pupil's classification into six monitored halves of the school year from the third to the fifth form).

Our knowledge of the pupils' families, their internal and external relationships, in particular the relation to the family standard, as well as any possible insufficiencies within the family, are quite essential elements for the assessment of its influence on the pupil's school success. Dunovsky [3] maintains that the functioning of the family and the relationship with the children, the parents' personalities and their interest in taking care of the children have a substantial influence on the stability of the family.

B. Parents' Educational Level

In general, it is stated that parents' education ranks among the most important criteria as far as the influence of the family on the pupil is concerned [4], [7]. In the sample selected for our research, it was seen that with more than 72% of families of the sampling set, the parents achieved the same level of education. In not a single case involving the parents, in which one of the parents would have only primary school education and the other a university education, which corresponds to the partner's selectivity. This phenomenon is given notice of, for instance by Katrňák and Fučík [9], who claim that the life partner is selected as an equal person with whom the other partner shares the same spheres of interests, i.e. the phenomenon that explains the growth of possibility of mutual meeting (for instance stadiums, bars, libraries, study rooms, means of transport). Education thus becomes the strongest preferential criterion in the marriage market in the Czech Republic. The parents' education influence on the scholastic success of the child included in the monitored sampling set is seen in Table III.

TABLE III
THE INFLUENCE OF THE PARENTS' EDUCATIONAL LEVEL ON THE PUPILS' SCHOLASTIC SUCCESS

| | UE in Both Parents | UE and SSE | SSE of Both Parents | SSE plus PSE | PSE of Both Parents | Total |
|-------|--------------------|------------|---------------------|--------------|---------------------|-------|
| Ps | 35 | 45 | 124 | 17 | 12 | 233 |
| % | 87.5 | 79.0 | 69.7 | 47.2 | 38.7 | |
| Pu | 5 | 12 | 54 | 19 | 19 | 109 |
| % | 12.5 | 21.1 | 30.3 | 52.8 | 61.3 | |
| Total | 40 | 57 | 178 | 36 | 31 | 342 |

Legend:

UE – University Education

SSE – Secondary School Education

PSE Primary School Education

The Chi-square coefficient demonstrates (Pearson Chi-square: 29.7810, p=0.000005) that in the sampling set, the

influence of the parents' level of education on the young pupils' scholastic success has been statistically proved. The university educated parents who were the successful pupils' parents are observable in nearly 88% of the monitored sample, irrespective of the monitored form of the primary school. This is really a vast difference (75%) between the numbers of successful and unsuccessful pupils whose parents are university educated people. Further, it is possible to observe a declining trend in the number of successful pupils in relation to the decreasing level of the achieved level of education of their parents and, on the contrary, the increasing trend in the number of unsuccessful pupils in relation to the decreasing achieved level of their parents' education. It is probably not only a case of the genetic disposition of the university educated parents' children, but, in particular, the result of the parental care of their children's development in general. The steering towards suitable children's activities, an adequate informational and experiential background, the parents' personal example and a higher load perceived as a natural family environment in which children can overcome all obstacles and solve problems –are the factors that significantly influence young members of the family community in questions regarding their aspirations and the volitional aspect.

C. The Parents' Interest and Care

The care for the development in general of children in relation to their scholastic success has been demonstrated by means of the three below-given characteristic features: the manifestation of family sharing, communication, and control. In the last two characteristic features, their impact on the pupils' scholastic success has been statistically proved. In case of the family sharing, it was, for instance, investigated whether the pupils' family meets every week and whether the family members meet to tell one another about their everyday living experiences – see Table IV.

TABLE IV
 INFLUENCE OF THE WILLINGNESS OF THE FAMILY TO PROVIDE INFORMATION ON THE PUPIL'S SCHOLASTIC SUCCESS

| | Never | Occasionally | Often | Always | Total |
|-------|-------|--------------|-------|--------|-------|
| Ps | 66 | 106 | 48 | 41 | 261 |
| % | 60.00 | 64.63 | 64.86 | 75.93 | |
| Pu | 44 | 58 | 26 | 13 | 141 |
| % | 40.00 | 35.37 | 35.14 | 24.07 | |
| Total | 110 | 164 | 74 | 54 | 402 |

Pearson Chi-square: 4.04761, p=0.256375

Admittedly, the received data do not confirm the existence of a statistical dependence, but they reveal a surprisingly large group of pupils who do not meet their parents a single day in a week and do...not share their experiences with their parents (i.e. approx. 25% of all successful pupils and 31% of all unsuccessful ones; at the same time those who answered "never" amounted to 60% of successful pupils and 40% unsuccessful ones). The issue of sharing has been tested even by means of the question as to whether the pupil tells his/her parents about what is going on at school. We can see that these

answers reflect a total adjustment of both communication conditions within the family and a personal set of characteristic features of parents and the degree of interest in the mutual exchange of information.

In this case, the relationship between the level of scholastic success and the frequency of communication with parents about school events has been confirmed – see Table V.

TABLE V
 THE INFLUENCE OF LEVEL OF FAMILY COMMUNICATION ON THE PUPIL'S SCHOLASTIC SUCCESS

| | Never | Occasionally | Often | Always | Total |
|-------|-------|--------------|--------|--------|-------|
| Ps | 9 | 106 | 64 | 85 | 264 |
| % | 40.91 | 67.95 | 70.33% | 61.59 | |
| Pu | 13 | 50 | 27 | 53 | 143 |
| % | 59.09 | 32.05 | 29.67 | 38.41 | |
| Total | 22 | 156 | 91 | 138 | 407 |

Pearson Chi-square: 8.03093, p=0.045383

While the successful pupils confirmed the frequency of communication within the family by means of the 70% level of dominance of the word "often" and 62% with the answer "always", whereas the unsuccessful pupils revealed values that were approximately at the level of one half. There is a consensus [1] that the development of the child's personality and its psychological and physiological condition is, to a great extent, influenced, in particular, by social communication, which is a place where communication within a family belongs. The greatest impact on the pupil's sound development has been seen in the authenticity of his communication, which also includes trust in his parents. The existence of open communication can result in a great number of situations which will enable the pupil's parents to act preventively, by means of influencing their pupil's scholastic success and thus naturally influencing the pupil himself. Otherwise, instead of prevention the situation can result in a delayed reaction to its consequences.

The degree of parental care and interest in their children's development can be monitored even according to the frequency of the parents' checks in the course of their children's preparation for school. The pupils of the tested set have responded to the question relating to whether their parents check their school preparation. The results of this probe are seen in Table VI.

TABLE VI
 THE PARENTS' CHECKS INFLUENCE ON THE PUPIL'S SCHOLASTIC SUCCESS

| | Never | Occasionally | Often | Always | Total |
|-------|-------|--------------|-------|--------|-------|
| Ps | 9 | 73 | 72 | 110 | 264 |
| % | 69.23 | 67.59 | 74.23 | 58.20 | |
| Pu | 4 | 35 | 25 | 79 | 143 |
| % | 30.77 | 32.41 | 25.77 | 41.80 | |
| Total | 13 | 108 | 97 | 189 | 407 |

Pearson Chi-square: 7.87430, p=0.048688

The test results confirm the statistical dependency relationship that exists between scholastic success and the

frequency of the parent's checking on the pupils. In this case, however, it is possible to hypothesize as to whether the scholastic success would be influenced by the rate of the parents' checks. On the contrary, the checks do not seem to be a cause, but rather an effect (consequence) of the lack of scholastic success. The unsuccessful pupils are checked by their parents relatively less than the successful ones, in particular from the viewpoint of frequency such as "occasionally" or "often". On the contrary, the unsuccessful pupils are "always" checked relatively more often than the successful ones – see Table VII.

TABLE VII
THE RELATIVE PARTICIPATION ON THE PART OF THE PARENTS' CONTROL IN THE CASE OF SUCCESSFUL AND UNSUCCESSFUL PUPILS

| | Never | Occasionally | Often | Always | Total (Row) |
|-------|-------|--------------|-------|--------|-------------|
| Ps | 9 | 73 | 72 | 110 | 264 |
| % | 3.41 | 27.65 | 27.27 | 41.67 | 100.00 |
| Pu | 4 | 35 | 25 | 79 | 143 |
| % | 2.80 | 24.48 | 17.48 | 55.24 | 100.00 |
| Total | 13 | 108 | 97 | 189 | 407 |

D. The Influence of the Pupils' Siblings

No clear consensus exists among specialists as to the significance of the sibling system, but the functioning of the family per se and the influence on the sibling system is beyond doubt. This influence is not one-sided, but reciprocal. The child living among siblings learns cooperation, competitiveness, mutual support, it leans more towards negotiation and towards creating compromises, to respecting opinions of other persons, as well as to behaving in an assertive manner. According to some of the authors dealing with this issue [5] we supposed that the sibling system manifests itself in relation to their scholastic success. This assumption has not been statistically confirmed – see Table VIII.

TABLE VIII
INFLUENCE OF SIBLINGS ON THE PUPILS' SCHOLASTIC SUCCESS

| | No sibling | 1 sibling | 2 siblings | Total |
|-------|------------|-----------|------------|-------|
| Ps | 125 | 119 | 18 | 262 |
| % | 65.10 | 70.41 | 54.55 | |
| Pn | 67 | 50 | 15 | 132 |
| % | 34.90 | 29.59 | 45.45 | |
| Total | 192 | 169 | 33 | 394 |

Pearson Chi-square: 3.44702, p=0.178444

The numbers of successful pupils exceed the numbers of unsuccessful ones in all the monitored sibling groups. Provided that we observe only successful pupils, the group with one sibling, reveals the highest degree of relative representation (45.42%).

V. CONCLUSION

The above -presented results confirm the existence of a significant role of the family in relation to the pupils subsequent scholastic success. As has been maintained by numerous authors, [14], [15] the experiencing of scholastic

success is considered as a key element in the forming of the pupil's positive and creative abilities. The family background significantly determines for the child/, not only their subsequent relationship with the school community (and thus that of even the working team), but in particular to itself. This contribution demonstrates an influence of some of the family characteristic features, those verified by research, on the young pupils' scholastic success. The statistical significance has been demonstrated by means of the family type, the parents' educational level, the degree of communication within the family and the frequency of the parental control of their children's school obligations. Not only these but also some other verified characteristic features that appeared in the study as statistically insignificant, (the number of siblings, the amount of time parents devoted to children, the frequency of commendations and punishments, conflicts in the family, etc.), cannot be designated as insignificant from the human point of view, for they point to differences and inequalities with which children begin their starting positions on the school path and thereby arouse questions concerning family and social responsibility. For instance, Matějů [11] brings evidence of the comparative advantage for the education of children coming from the families with higher education and a higher social status. The more different the starting family conditions are, the more this issue becomes a social problem. This also applies to the Czech Republic.

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