

THE SOCIO-CULTURAL BACKGROUND OF READING COMPREHENSION OF UNIVERSITY STUDENTS - THE SUCCESS FACTORS OF UNIVERSITY ADMISSION

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The aim of the research is to find the success criteria of getting into higher education. Who are successful? We consider those students are successful who gain admission to a higher education institution in the year when they finish secondary school by passing the school leaving examination. The previous researches focused on the existence and elements of cognitive competencies and on their influence factors and mechanisms. Our hypothesis is that not only academic knowledge acquired in school determines a successful admission to higher education. There are direct influence factors and we have to take such aspects acting as catalysts into consideration that exert an indirect influence on the educational mobility of young people. During our research we developed new measuring tools and methodological processes.

Keywords: socio-cultural background, reading comprehension, university students

An important question of the national research policy is the efficiency of the educational system. It is also a question how well prepared and with what sort of knowledge potential students leaving secondary education have when they begin their career in higher education. Who can get to the beginning and have a successful admission? What groups of young people have the chance to get a diploma and what groups are deprived of this opportunity? Nowadays several Hungarian and foreign researches try to answer these questions. The international literature had pointed out the impact of reading and text comprehension ability on other learning abilities regarding children in public education. The international experiences and the expansion of the Hungarian public and higher education have started numerous competence-based investigations.

The researches at UP measuring youngsters in public education started in the 90's. Later, with the Dutch CITO research team, tests, measuring tools and a database were developed for the competence-based measuring of students in higher education. The pedagogical research team of the Faculty of Adult Education and HRD, UP, led by Mihály Kocsis, inquired 2865 undergraduates and 2000 freshmen in 2005/2006 and 2006/2007.

However, little is known about how the existence of the basic competences that influence the chance of getting into university in adult age groups and during the transition period between public and higher education.

On the basis of the two-year-long comparative research and using the experiences of our work in teaching youngsters, we now try to provide an answer to these questions.

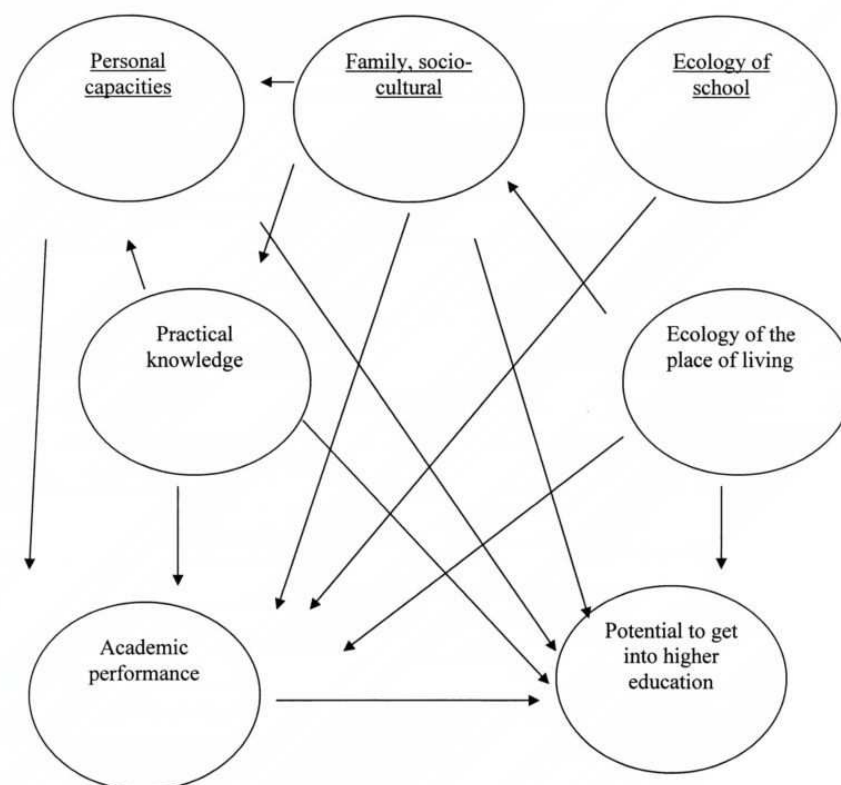
The aim of the research is to find the success criteria of getting into higher education. *Who is successful?* We consider those students successful who gain admission to a higher education institution in the year when they finish secondary school by passing the school leaving examination. The previous researches focused primarily on the existence and elements of cognitive competencies and on their influence factors and mechanisms. According to our hypothesis it is not only the academic knowledge acquired in school that determine a successful admission to higher education. There are *direct influence factors* and we have to take *such aspects acting as catalysts* into consideration that exert an indirect influence on the educational mobility of young people. My idea is that - beyond the academic performance of the student - a successful admission into higher education is also influenced by the ramifying impact of their socialization and also their environment. Several (personal) and environmental (ecological) factors that catalyse the life of young people and influence the success factors necessary to get a diploma. We picked our test method on the basis of this assumption: apart from using the classic examination methods I also carried out multiple mathematical analysis using SPSS database.

During our research we used factor analysis. Sorting out the variables that have strong correlation the major problem areas influencing the life of students beginning their university studies became visible. Analysing the main components of the data gained about the students we managed to find the determining factors and problem areas of education, sociology and ecology.

Chart 1. : The main components of the factor analysis

| Index | Rotated Component Matrix | | |
|--|--------------------------|------------|------------|
| | 1 | 2 | 3 |
| Family's social capital | 7,599E-02 | -9,905E-03 | ,825 |
| Family's cultural capital | 6,367E-02 | 2,632E-02 | ,827 |
| Practical knowledge | 8,299E-02 | ,209 | -4,355E-02 |
| Academic knowledge | -2,651E-02 | ,911 | 5,030E-02 |
| Ecology of the school | ,834 | 5,907E-02 | 8,946E-02 |
| Ecology of the place of living | ,891 | 3,225E-02 | 6,440E-02 |
| Potential of getting into higher education | ,823 | ,107 | 3,406E-02 |

Figure 1.: The personal, social and ecological factors influencing educational mobility



Regarding the *content of the main components*, they reflect the existence of the academic knowledge, the practical knowledge, the parents' qualification, the cultural instruments and the indicators of the social condition of the family. They also show the variables that determine the potential success of university admission and highlight the ecologic indicators of the place of living and school of the students.

We provide a detailed explanation of the main components described above and of the list of variables reflecting their content:

Indicators of personal capacities:

Test of reading comprehension

Test of thinking

Test of Hungarian language

Test of physics thinking

Indicators of academic performance

Successful academic competition

Grades brought from high school

Type of school leaving examination

Advances level subjects at the school leaving examination

Indicators of practical knowledge

Means of practical knowledge

Language exams

Frequency of extracurricular activities

Frequency of reading

Practical knowledge gained through working

The indicators of the socio-cultural background of the family

Size of the family
Sisters and brothers
Qualifications of parents
Cultural instruments of the family
Books of the family
Economic situation of the family

The indicators of the education of the student and of the ecological environment of the school:

The ecological environment of the place of living
The distance between family and school
The rural and urban features of the school
The indicators of the ecological environment of the school
The place of the school where the school leaving exam takes place in the hierarchy of the secondary schools
The special features of the secondary school

The potential and indicators of higher education

Successful admission in the year of the secondary school leaving examination

The chances of a successful admission (the order of higher education institutions according to the choice of the student)

The special features of higher education (evening course, correspondent course)

Age of the student (younger, older)

Our next step was to create a cumulated index using the variables of the problem areas explained above. We were able to do this as certain factors of the data gained from the students who could begin their university studies show strong correlation.

What are the success factors of getting a diploma in higher education? In order to measure the strong or low impact of the various success criteria we created a binary indices. The extreme values of the indices - in relation to the average - show the low and high values. Using the binary indices as a test method we were able to measure the pedagogical and sociological features of those young people who gained admission to higher education. This test method gives us a chance to measure various aspects and dig deeper in the future. In our present analysis we focus on highlighting *the most important pedagogical and sociological components that influence the successful admission to higher education.*

The binary indices of the success factors of higher education:

- The index of academic knowledge
- The index of practical knowledge
- The index of the family's cultural capital
- The index of the family's social capital
- The index of the potential of getting into higher education
- The index of the ecology of the school
- The index of the ecology of the place of living

Chart 2.: The extreme values of the success factors of higher education (%)

| Success factors/ Level of values | Lower value (disadvantaged) | Higher value (advantageous) |
|---|--------------------------------|--------------------------------|
| The index of academic knowledge | 53,4 | 46,6 |
| The index of practical knowledge | 70,4 | 29,6 |
| The index of the family's socio-cultural capital | 67,2 | 32,8 |
| Social capital | 53,3 | 46,7 |
| The index of the potential of getting into higher education | 65,1 | 34,9 |
| The index of the ecology of the school | 32,8 | 67,2 |
| The index of the ecology of the place of living | 50,1 | 49,9 |

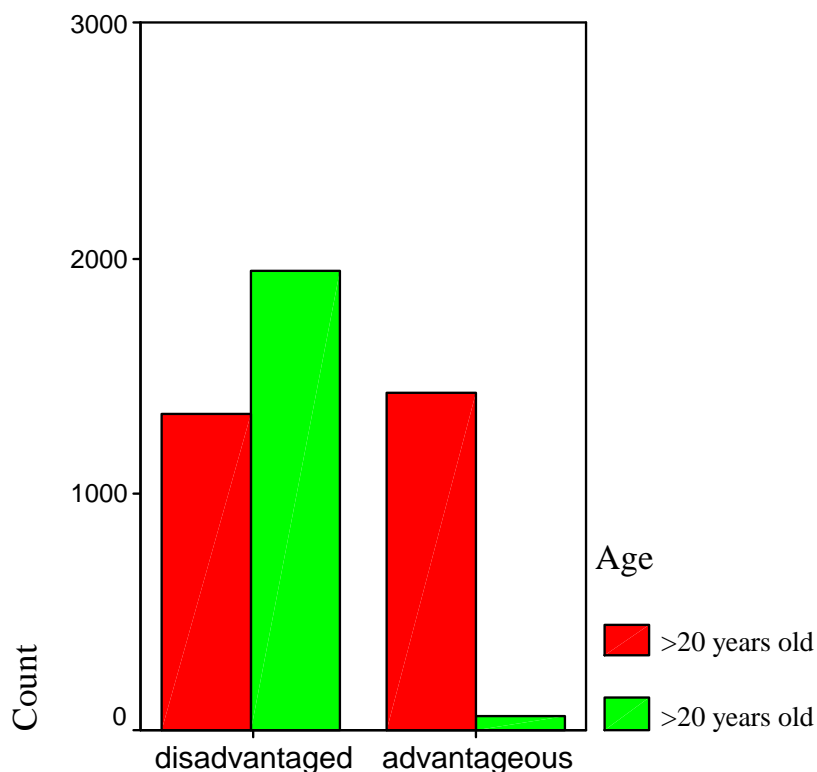
Success factors and competitive disadvantages

Using our indices we are able to identify the *factors of the ongoing competition for diploma*. Thus it is easy to set apart the fresh university students into two groups: *those who have an advantageous and those who have a disadvantaged situation*. One-third (34.8%) of the students in the sample examined had a successful admission, as they were able to get into one of their top three choice universities in the year when they passed the secondary school leaving exam. Those who have fewer chances gain admission to correspondent courses of various higher education institutions in the years following their secondary school leaving exam. They do this when they already work for a while and most of the time they have to give up their original idea to get into their top three choice institutions.

Researching the success factors a striking difference can be seen in the composition of those students *who got admission in the various university courses*. The members of the advanced group became full-time students whereas the members of the disadvantaged group got admission only into the correspondent courses. 96.1% of the students of the correspondent courses were in the worst situation in relation to university admission.

The differences in the *age composition* also indicate the inequality of opportunities. Those below 20 have much greater chances. The older students got admission into the correspondent courses having had several attempts and having gone through the difficult road of establishing their existence.

Chart 3.: The distribution of the chances of getting admission in higher education according to age groups



Chances of getting admission in higher education

(correlation: 0,519, significance level: 0,000)

If we look at the connection between the competitive advantage and the *gender composition* of the first year students, we can state that more women (77.9%) got admission to adult education than men (22.1%).

The *different schools* and the various types of the school leaving examination also had an impact on the chances to gain admission. The most successful young people (58.5%) come from schools that have some sort of specialization, or from schools (60.1%) that belong to the top third of the schools in the country. These students mainly took advanced level final exams in the secondary schools, too.

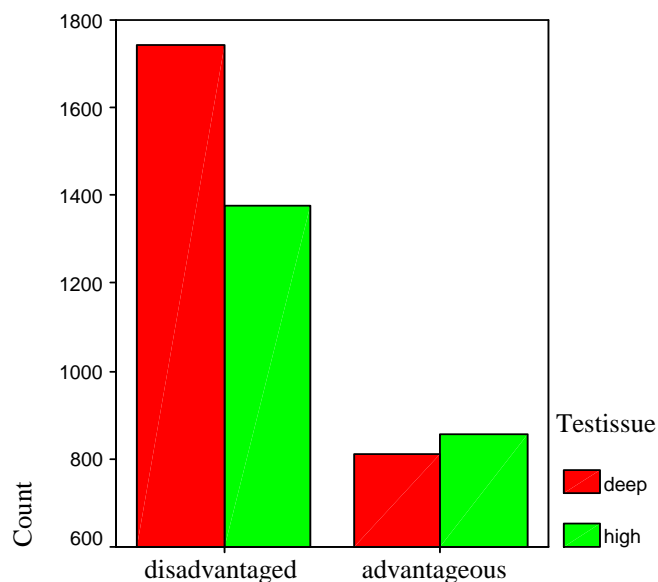
The data we revealed concerning the differences in the opportunities motivated us to have a thorough examination of the factors influencing the different competitive positions.

The structure of the knowledge of the students

One important factor influencing the chances of those students who gained admission to higher education was the *extent of the academic knowledge* that can be mobilized by their personal capacities and that can be measured by competence tests. More than half (53.4%) of the first year students had quite low performance when their reading comprehension competencies were tested. The students who performed better were at the same time the most successful in shaping their chances. The other measures of academic

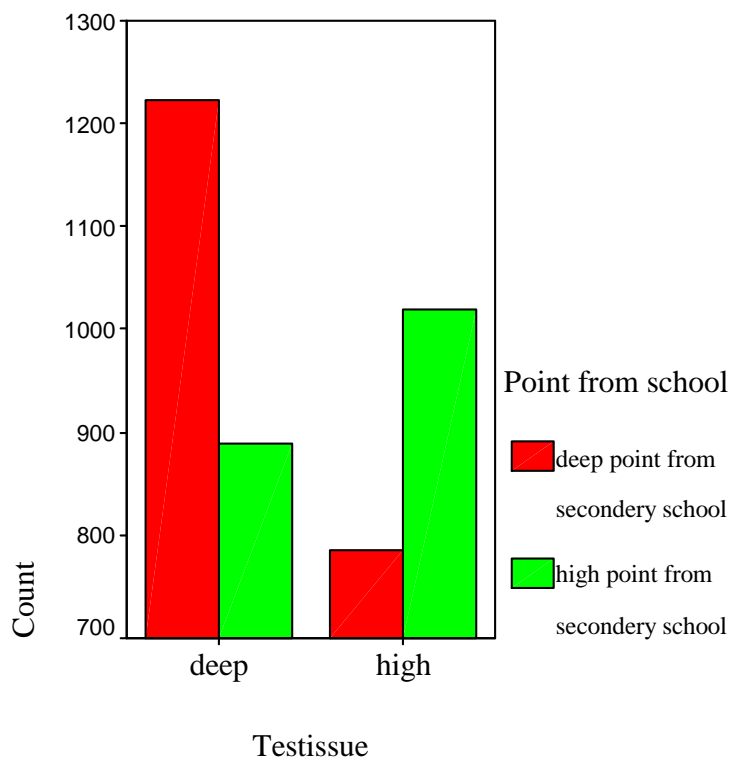
knowledge, such as the points brought from the secondary school, also added to the success factors.

Chart 4.: The relation between the academic results measured by tests and the chances of getting into higher education



Chances of getting into higher education
(correlation:0,589, significance level: 0,000)

Chart 5.: The relation between the points brought from secondary school and the testissue, chances of getting into higher education



(correlation: 0,675, significance level: 0,000)

The *gender of the population* plays an important role in the differentiation of the academic performance. The academic knowledge measured by tests is more balanced among men. Although there are three times as many women students as men - their proportion is also over represented in the similar Hungarian universities -, men had a proportionally better performance (54.3%) than women. The results are in accordance with the data of the previous Hungarian and foreign researches.

Considering what chances the younger and the older generation have to get a diploma, 59.1% of the older people showed a quite poor reading and reading comprehension capacity when they applied to get into higher education. The university students of different ages had interesting careers. Those students who were not given the „royal road” to gain successful admission were mostly supported by their parents. Although this extended childhood did not take the students closer to a successful admission. Among the students of the correspondent courses only every fourth worked and earned money. When examining the test results of those who had a special walk of life we noticed that more than half (54.8%) of those who were willing to test their capacities after years of working performed well at the reading comprehension tests. As a first approximation it could be explained by the fact that the standard of public education and the performance of schools have been declining year after year. This is also proved by IEA, PISA and the Hungarian Monitor-researches. Why are those applicants who are familiar with the worlds of work know more? In order to answer this question it became necessary to examine the knowledge of the students - gained in school or somewhere else - thoroughly.

When we examined the sociology of knowledge, apart from measuring the academic knowledge we also measured the levels and structure of the everyday, practical knowledge. We assumed that we shall gain a deeper understanding about how the various types of non-academic knowledge influence the opportunities. We analysed the nature of competencies of those first year students who had worked before and examined how different those were from their academic knowledge brought from school. Apart from the outstanding test results we experienced a high level of practical knowledge (51.8%) - command of foreign language, professional driving licence, computer literacy and knowledge gained through reading books and the Internet. In contrast with this, those who had lower test results also had a low level of practical knowledge (66.9%)

Apart from the cognitive factors of the academic knowledge, the *various types of practical knowledge, the attitudes concerning work and the mental competencies* are also of great importance. Those students who took part in study circles and undertook extracurricular activities in high schools proved to be more successful.

The knowledge of different coding systems, the contact surface of the various cultural areas and values go together with multiple knowledge acquiring strategies. *The various types of practical knowledge play a catalysing role in the success factors of university admission.* The applicants who use multiple coding systems and regularly inform themselves know more languages and pass more exams successfully (58.8%). The traditional education, and mainly the regular reading activity play a significant role in the accumulation of the everyday knowledge (53.3%). In relation to enhancing our everyday (practical) knowledge the use of PC-s, e-mails, and the Internet have a decisive role. Communicating in an extensive way, collecting information, networking, getting a driving licence have all established new ways of accumulating information in the life of the more successful ones.

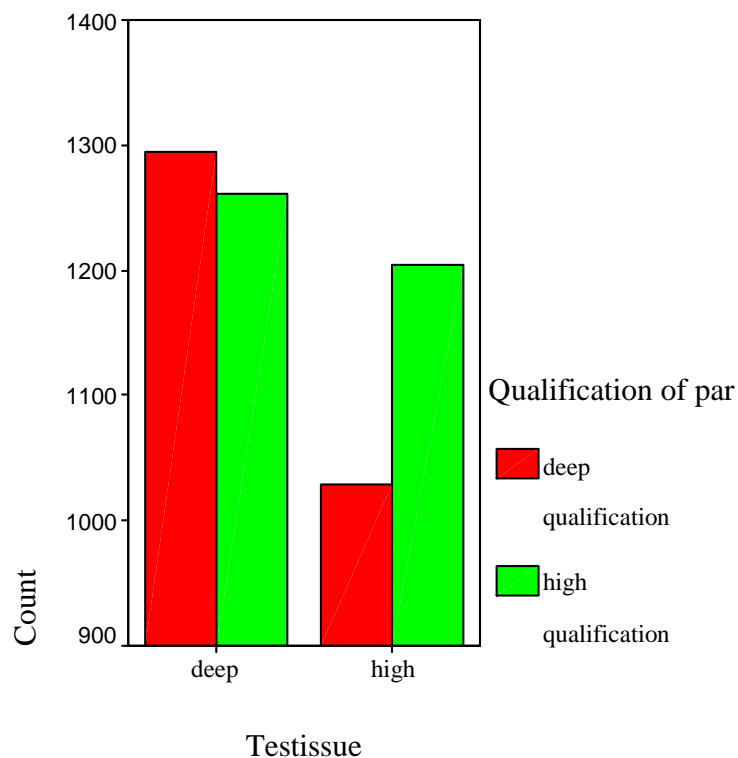
Those who consciously prepare for the ultimate tests during the years they spend in secondary school - in the form of academic competitions or university preparatory courses -, have much better opportunities to gain admission into the higher education institution of their choice. With respect to increasing our opportunities determining the concrete objectives and *building a competitive strategy* as early as possible proved to be highly important. We still have to analyse what conscious or latent learning methods young people use to make up for the drawbacks of the years they spent working after graduating from high school. The examination of the process of maturation needs further interdisciplinary and andragogical analysis. We can assume in advance that it is not only the accumulation of capacities and knowledge, but also the *exercise of competition*, and the personal development originating from conscious life management that accelerate successful educational mobility.

Apart from the knowledge acquired in school the highly educated students possessing various types of practical knowledge could gain successful admission by accumulating and mobilizing these types of knowledge.

The relation between family background and studying

Among the various types of symbolic capitals the cultural capital embedded in the qualification of the parents proved to be decisive in relation to the education of their children. It is a Hungarian specialty that the role of the mothers' qualification is much stronger in this respect. Among the parents of those first year students who had good test results, 70,0% of the mothers and only 56.6% of the fathers have degree in higher education.

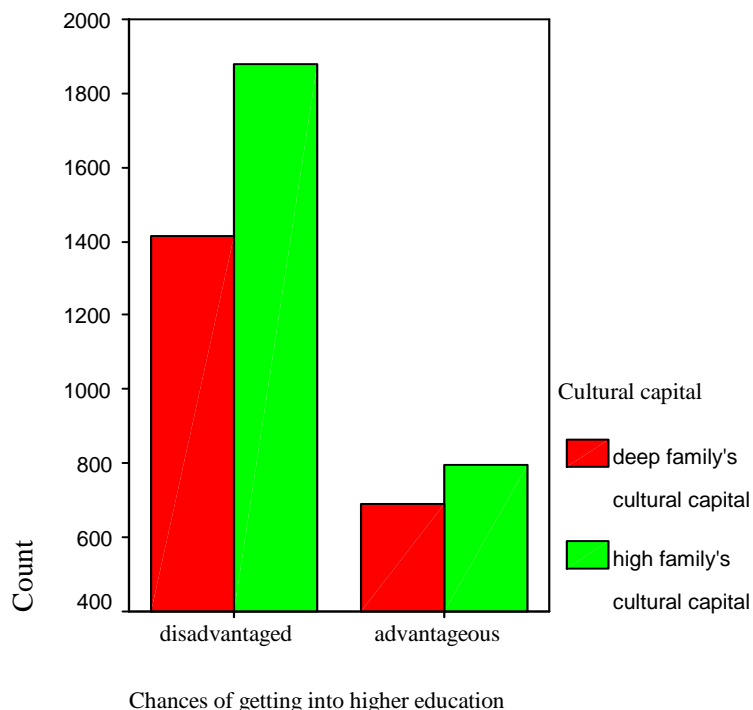
Chart 6: The relation between the qualification of the parents and the academic performance



(correlation: 0,548, significance level: 0,000)

The majority (68.2%) of those students who try to get into higher education several times with quite poor opportunities, are surrounded by distressed cultural environment. 53.9% of those students who had high reading comprehension test results arrived from families with rich cultural capital.

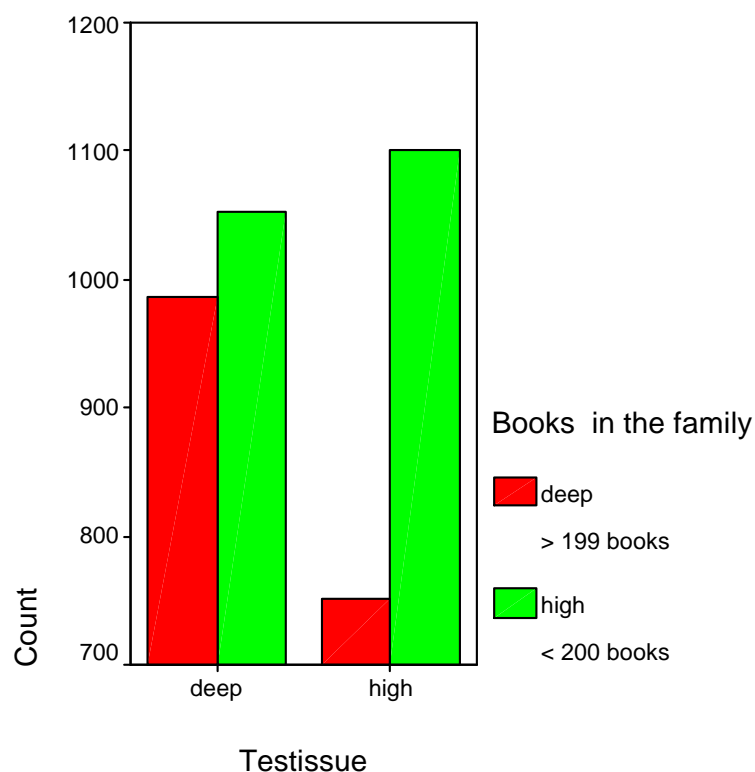
Chart 7: The relation between the cultural capital and the opportunity to study



(correlation: -0,543, significance level: 0,000)

The ademic performance and the successful admission to higher education are strongly determined by the accumulation of the family's cultural capital. As the role of practical knowledge has become more significant, the traditional and modern information and culture carriers also have an important role in the family. The family library and the number of books still play a decisive role in the development of the cultural motivation, patterns and values of the middle class.

Chart 8.: The relation between the number of books at home and the academic performance



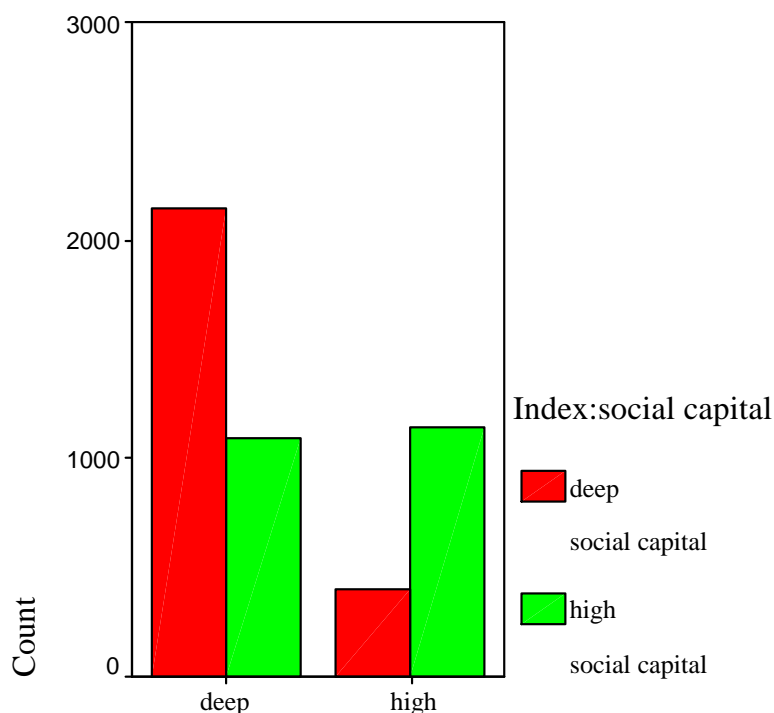
(correlation: 0,578,significance level: 0,000)

The relation between the economic situation of the family and the opportunities to study

Ten measuring the social capital we examined the living standard and the infrastructure of the family. At the same time we also measured the positive and negative perceptions concerning the economic situation of the family on a five-grade scale. The parents having higher living standards can utilize their greater social capital in a more effective way. Many of their children get into higher education. Our indices indicate a *growing status discrepancy* and this is a warning sign, *as more than half (53.1%) of the students having low social capital also perform well*. Having a short detour it is worth noting that the poverty of children is increasing internationally, and the families with children have the worst situation. Every fourth primary school student is poor and every fifth live in dire poverty. It is also known that the hierarchy of the higher education institutions reflect the hierarchy of the various professions. The special socio-cultural composition of the students of adult education, of pedagogy and of similar faculties could originate from the unique recruitment of the higher education institutions and their faculties and also from their traditional target groups. To understand the origin of the problem further research is needed. The group of disadvantaged young people who get admission to higher education is continuously shrinking and focus on faculties with low social prestige. However, on their own they can mostly get admission to full-time publicly funded courses. The disadvantaged but talented young people are increasingly pushed out of those more marketable courses for which one has to pay a tuition fee. Thus

we need a social support system that not only helps young people get into higher education but also guarantees that the poorer ones can stay there.

Chart 9.: The relation between the cultural capital accumulated in the family and the social situation



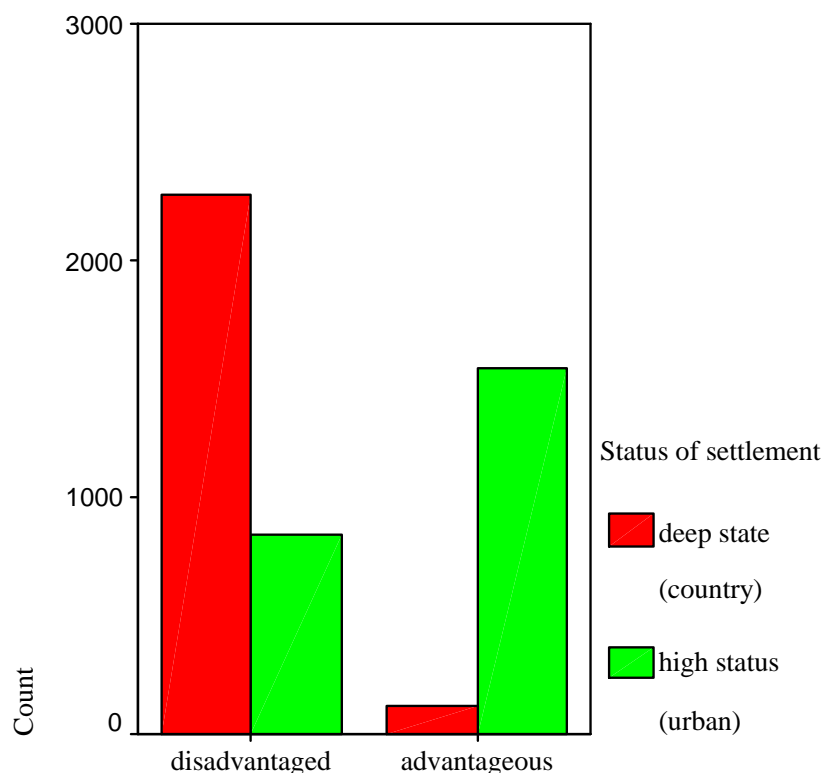
The index of the family's cultural capital

(correlation: 0,578, significance level: 0,000)

The socio-ecological factors of success

On the basis of our previous researches we found that the knowledge gained in school and the chances of studying decrease with the size of the settlements. We measured the chance to get admission to higher education with a cumulated variable that indicate whether the applicant was admitted directly and how many years they had to wait for that. This index also shows how many institutions the applicant had to waive - in comparison with their top choices - because they lack the competence and/or due to other reasons. Our present research also investigated the way the efficiency of the education and the type of settlement where the secondary school is located influenced the potential of getting admission to higher education. Do the socio-ecological impact of the place of education influence the success factors of university admission? And if yes, how? First of all we clarified that of the spatial conditions of socialization which environment have a stronger impact on the opportunities of getting admission to higher education. From the type of settlement where the secondary school is located (correlation 0,2111, significance level: 0,000), and the type of settlement where the student lives (correlation: 0,626, significance level: 0,000), it is the place of living of the applicant, which has a stronger impact on the opportunities of getting admission to higher education.

Chart 10.: The development of the chances to get admission to higher education according to the status of the settlement



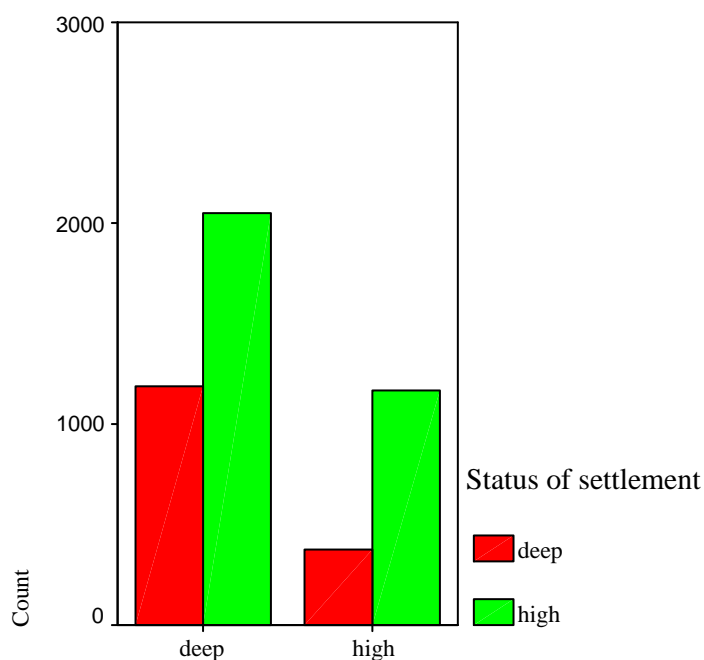
Chances of getting admission higher education

(correlation: 0,626, significance level: 0,000)

This relation could reveal two important facts. On the one hand, as a result of the unequal spatial distribution of the Hungarian secondary schools, those schools that end with a school leaving exam giving certificate of secondary education are mainly located in urban areas, whereas one-third of the students live in rural areas. The regional researches pointed out how the place of living, the local labour market, the public services as well as the communication and cultural infrastructure affect the lifestyle of the people. It can no longer be proven that the type of settlement has a decisive impact on the socio-cultural environment and the career opportunities of the family and the younger generation. It can directly or indirectly influence the lifestyle of the younger generation and the development of their career in education and also in their lives. The urban place of living increases the chances of further education. In the countryside, and especially in the rural regions we have to take the accumulation of several socio-cultural factors into consideration all of which hinder the opportunities to get admission to higher education. Our data indicate that the *factors leading to advantages and generating disadvantages are added together*. More than half (64.8%) of the young people living in urban areas got admission to the university of their choice (correlation 0,587, significance: 0,000) in the year of their graduation from high school. At the same time the young people living in rural areas and thus having less opportunities could get admission only after several attempts (94.9%). The continually changing requirements of the school leaving exams, their decreasing knowledge, and their increasing uncertainty in their capacities all increase their already existing disadvantages. The passing years and the accumulated difficulties forced most of the youngsters to give

up their original choices. Thus the applicants who are in particularly disadvantaged situation chose strategies that motivate them to compensate for failures or to neutralize their handicaps. Instead of focusing on the guarantees of success, they tend to apply for less marketable courses. As a result of this, those fighting to reduce their handicaps became the students of such institutions originally appeared very low on their list of choices.

Chart 11.: The relation between the cultural capital of the family and the ecological status of the place of living



The index of the family's cultural capital

(correlation: 0,523, significance level: 0,000)

Results

- ✓ We introduced the factors influencing the *academic performance of the successive age groups*, and that of the younger and older generation.
- ✓ We analysed the *success criteria of getting into higher education*.
- ✓ The *reading comprehension* and the knowledge gained in school still *have a strong influence* on academic performance and career mobility.
- ✓ Among the success criteria of *competitive knowledge*, the structure and subtleness of knowledge, its target oriented mobilization and also its usefulness play a key role.
- ✓ In a competitive situation the *socio-cultural background* of the students and the ecological background of their school and place of living become more important.
- ✓ In the development of the various careers leading to higher education, the factors *generating advantages and disadvantages are added together individually*.
- ✓ During our research we developed *new measuring tools and methodological processes*.
- ✓ We revealed the characteristic features of those groups of young people that are in an advantageous or disadvantageous situation regarding *educational mobility*.
- ✓ We also pointed out their *andragogical and pedagogical consequences*.