

Embeddedness of students with special educational needs in higher education

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Abstract

Previous research has examined the institutional and extra-institutional embedding and network of students, however, we still know little about the network of students with special educational needs. What makes this research unique is that it compares the characteristics of SEN-A and SEN-B students. Therefore, the embeddedness of students with special educational needs within the institution is investigated using quantitative research method. The research sought an answer to the question of what characteristics can be used to describe the network of students with special educational needs, and whether there is a difference between SEN-A and SEN-B students. Based on the results, there are significant differences in the case of students with special educational needs, whether they are embedded more strongly in the environment inside or outside the institution.

Keywords: *Special educational needs; higher education; social capital.*

1. Introduction

The correlation of the student networks with academic performance indicators has already been investigated by many researchers (Bourdieu 1988, Coleman 1988, Pusztai 2011). They show that students perform significantly better when they are in harmony with their environment (Astin 1993). Several studies have proven that the social capital created by student networks promotes a successful school career and admission to higher education. The academic embeddedness also promotes this during studies, especially the relationship with the other students (Pusztai 2011). In the case of students with special educational needs, it has also been proven that the positive attitude of the students - in addition to the attitude of the teachers - is important and is also a condition for successful integration (Petó and Ceglédi 2012). In terms of relationships outside institutions, the most important are the contemporary circle of friends, the family, and voluntary and religious communities. (Utasi 2002, Albert and Dávid 2007). In the case of pupils and students with disabilities, we do not have information on friendships outside the institution, but there are already researches on contemporary friendships that also include the institutional environment. Hrabéczy (2020) in his research examining families with special educational needs in the fourth grade found, among other things, that children with special educational needs spend less time with their peers outside of school compared to the average. In our research, in connection with Coleman's social capital theory, we examine the inter- and intragenerational network of relationships of students with special educational needs inside and outside the institution, so in the following, we will review the relationships within the institution between peers, between students and teachers and with other institutional administrative staff we present the results concerning relationships outside the institution, and the results concerning peers and the family.

1.1. Definition of the target group

According to the OECD, there are three main groups of special educational needs, SEN-A (disabilities), SEN-B (difficulties), and SEN-C (disadvantages). The types of disabilities classified as students with disabilities in the Hungarian Higher Education Act can be placed in two groups in the OECD category system, the SEN-A and SEN-B categories. The division based on this is illustrated in Table 1. In the course of the research, we will later compare students with special educational needs belonging to the SEN-A and SEN-B categories.

Table 1: Hungarian students with special educational needs in the OECD SEN category system.

SEN-A	SEN-B
Motor, sensory (vision, hearing), speech disability	Other psychological developmental disorders (learning, attention or behavior control disorder), autism spectrum disorder

Source: own editing based on OECD (2004) and Nftv 2011.

2. Methodology

2.1. Hypotheses

In addition to the family, other intergenerational and intragenerational relationships of individuals also have a major impact on academic progress and higher education integration, which has been supported by numerous researches. These factors also prove to be decisive for students with special educational needs (Pusztai 2011, Pusztai and Szabó 2014, Hrabéczy 2019). However, integration into different communities can be of varying degrees and difficulties due to stereotypes and prejudices, depending on the type of specific educational need (Séllei 2015, 2018). Knowing these, we assume the following:

- a) SEN-A students have a stronger intergenerational relationship system than SEN-B students, but SEN-B students have a stronger intragenerational relationship system.
- b) In the case of students with special educational needs, the relational capital within the family will be decisive from the point of view of higher education embeddedness.

2.2. Methods

To investigate this, we implemented a large sample questionnaire data collection using the snowball method (N=331). The database from this data collection is referred to as the IncludED2020 database, referring to the possibility of participation in inclusive education and the year of data collection.

There is no database available to researchers that can be used as a sampling frame for such research and would provide access to students due to the GDPR. Based on the anonymized statistical data, approximately 2,000 people in Hungary belong to this category, of which we tried to reach 10%. Since probability sampling was not possible in the absence of a sampling frame, we resorted to snowball sampling. Keeping in mind, first of all, that the different types of special needs appear among the respondents in accordance with the real proportions, therefore our sample represents the reality in terms of SEN types. However, we were not able to achieve representativeness in terms of training areas. In spite of these limitations, the data collection proves to be an investigation with an exceptionally large number of elements both at the Hungarian and international level. The indicator of this is that we cannot find any research in the literature that would have carried out a large number of questionnaire data collection by interviewing students with disabilities, we can only find analysis of national statistics and interview research with a smaller sample. The choice of method is also justified by the fact that there are many students with disabilities in higher education who do not register their disability either at the time of admission to higher education or during their studies in the administrative systems of higher education, thus these students would remain hidden from the researcher's eyes by the approach through higher education institutions.

However, we also consider it important to include these people in the research, since we have very little information about their presence and the reasons for not registering their disability, but by asking them, another aspect of the studies of these students can be investigated.

3. Results

To test our hypotheses, we performed a cluster analysis. The cluster centers are illustrated in Table 2. The analysis was carried out along two dimensions, with the previously discussed inter- and intragenerational, as well as intra- and extra-institutional relations items. After that, the variables were standardized and then included in the analysis.

Based on Table 2, it can be seen that, with the help of the included variables, four embedding types emerged in the case of students with special educational needs. The following distribution can be seen in relation to embeddedness along the clusters (Table 3).

Based on Table 3, it can be seen that there is a significant difference in embeddedness among students with special educational needs. SEN-A students are overrepresented among those with institutional intergenerational embeddedness, and among them the lowest proportion are those characterized by a lack of social capital. On the other hand, the opposite can be observed in the case of SEN-B students. They are overrepresented among those with a lack of social capital, while among them the proportion of students with institutional intergenerational embeddedness is the lowest. It coincides with our assumption that the intergenerational embeddedness of SEN-A students and the intragenerational embeddedness of SEN-B students will be stronger, however, the high proportion of SEN-B students with a lack of capital is an unexpected result. According to Coleman (1988), the lack of social capital is an important risk factor of dropping out. Our result in the light of Coleman's results shows us, that SEN-B students can be a more disadvantaged situation during their studies, caused by the fewer supporting opportunities and a weaker social network.

A comparison was made along these clusters along the lines of socio-economic background, achievement before higher education and the characteristics of the course and institution visited by the student. Due to space limitations, the tables representing these results are not published in the study, but our results are discussed in the conclusions.

Table 2: Cluster centers (N=343).

	Institutional inter- generational	Intra- generational	Family inter- generational	Lack of social capital
parent: Financial support	0,011	-0,696	0,082	-1,054
parent: Meet with friends	0,209	-0,113	0,395	-0,816
parent: Knowing how the children spending their free time	-0,016	-0,455	0,124	-1,061
parent: Encouraging to study	0,082	-0,654	0,357	-1,071
parent: Conversation about culture	0,591	-0,172	0,150	-0,752
parent: Cultural programs together	0,425	-0,293	0,353	-0,685
parent: Conversation about books	0,483	-0,176	0,316	-0,917
parent: Relationship with instructors	0,509	-0,050	-0,149	-0,302
parent: Conversation about future career	0,339	-0,311	0,491	-0,834
parent: Cooking for the student	0,259	-0,394	0,418	-0,414
parent: Interested in their child's studies	0,021	-0,776	0,327	-1,361
parent: Drives their children to classes	0,598	-0,219	-0,037	-0,309
parent: Involve student in housekeeping	-0,077	0,056	0,387	-0,741
instructor: Helps to cooperate with other students	0,904	-0,129	-0,464	-0,078
instructor: Helps with studies	0,593	0,087	-0,362	-0,274
instructor: Helps with career choice	1,099	-0,339	-0,417	-0,070
instructor: Conversation about student's personal problems	0,624	-0,082	-0,280	-0,156
instructor: Encouraging to study	1,094	-0,204	-0,483	-0,176
instructor: Takes abilities into account	0,720	0,095	-0,392	-0,403
students: Talking about problems related to studies	-0,074	0,134	0,007	-1,811
students: Spending free time regularly	-0,004	0,294	-0,321	-1,017
students: Conversation about student's personal problems	0,093	0,238	-0,193	-0,911
students: Lend books and notes	-0,175	0,234	-0,312	-0,584
students: Talking about future career	0,329	0,309	0,107	-1,087
students: Inquires in case of absence	0,388	0,444	0,030	-0,689
students: Studying together	0,124	0,323	-0,160	-0,763

friends: Talking about problems related to studies	-0,549	0,369	0,179	-0,682
friends: Spending free time regularly	-0,375	0,253	0,107	-0,167
friends: Conversation about student's personal problems	-0,448	0,284	0,285	-0,389
friends: Lend books and notes	-0,236	0,287	-0,096	-0,345
friends: Talking about future career	-0,297	0,224	0,226	-0,514
friends: Studying together	-0,232	0,317	-0,011	-0,264

Forrás: IncludED2020

Table 3: Distribution of embeddedness clusters in the comparison of students with special educational needs (Chi-square test, $p < 0.05$), (%), (N=331).

	SEN-A	SEN-B
Institutional intergenerational	<u>30,5%</u>	15,8%
Intragenerational	28,4%	32,1%
Family intergenerational	29,8%	32,1%
Lack of social capital	11,3%	<u>20,0%</u>
N	141	190

Source: IncludED2020. Note: For underlined values, the value of adjusted residuals is greater than 2.

4. Conclusions

In this research, we explored the components and characteristics of the higher education embeddedness of students with special educational needs, as well as the relationship between higher education and pre-higher education networks with certain factors of admission to higher education. In the course of the analysis, we were able to separate four types of embeddedness based on the strength of relationships within and outside the institution, as well as inter- and intra-generational characteristics.

The largest proportion of SEN students with institutional intergenerational embeddedness are men, but among the SEN-B students belonging to this cluster there are still more women. In terms of socioeconomic background, the members of this cluster typically came from big cities and were mostly the children of parents with higher education, who have a better than average subjective financial situation. This cluster is characterized by the fact that among them we most likely come from single-parent families. They demand extra points mainly in the form of preferential treatment and additional performance.

Embedded in the environment inside and outside the institution is typical for students with special educational needs embedded in the intragenerational environment. There is a higher proportion of women within this cluster, and the proportion of SEN-B students from mosaic families is also significant. They are overrepresented from villages and towns, and although

they are not in this cluster in the highest proportion, they are mainly children of parents with secondary education. They are mostly characterized by a good financial situation, however, students with a poor financial situation are overrepresented among SEN-B students within this cluster.

Intergenerational embeddedness within the family is more typical of female students, and students with special educational needs coming from whole families are included in this cluster in the largest proportion. Among them, we can most likely find students coming from smaller towns, who are the children of parents with secondary education, and who are characterized by a good subjective financial situation.

The fourth cluster includes those students with special educational needs who lack social capital and are characterized by a lack of interactions with their environment in all examined respects. It is more common for male students with special educational needs, including mainly SEN-B students. Among them, we find the largest proportion of students with special educational needs who were not raised by their parents, and mainly the children of parents living in smaller or larger cities, but with primary education, who are characterized by a poor subjective financial situation.

By capturing the characteristics of these clusters and mapping the dimensions of their entry into higher education, we obtained a more accurate picture of the relationship between the networks of students with special educational needs and their entry into higher education.

In this connection, we assumed that SEN-A students have a more extensive intergenerational relationship system, and SEN-B students are more characterized by intragenerational embeddedness. This assumption was partially confirmed, as our results confirm that SEN-A students have a stable institutional intergenerational relationship system, who, recalling their secondary school studies, report less negative teacher behavior towards them, and it is more typical for them that their interactions with instructors are also positive and more frequent. Also, SEN-A students are the least characterized by the lack of capital. On the other hand, in the case of SEN-B students, we did not clearly demonstrate a greater degree of intragenerational embeddedness. Although the level of intergenerational embeddedness will be higher in their circles, those struggling with a lack of capital are still overrepresented among them.

We also assumed that the social capital within the family plays a decisive role in the case of embeddedness in higher education. However, we assumed that the existence of relationships within the family will be a more significant resource for SEN-A students than for SEN-B students. However, in the case of the effect on embeddedness in higher education, it became visible that family relationships in themselves result in few differences between the two investigated groups, and we did not experience the supporter's effect on embeddedness in the entire sample either. In the case of socio-economic background factors, however, the impact

on higher education embeddedness emerged. However, among the examined students, the quality and quantity of the institutional relationships established before higher education, i.e. the connection with high school teachers and high school classmates, proved to be more important. However, it has been proven that in the case of SEN-A students, parental involvement has a stronger effect on admission to higher education than in the case of SEN-B students. The social capital between SEN-A and SEN-B students within the family may be the one that can compensate for the disadvantage arising from the disability during the preliminary selection process.

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