

**Eötvös Loránd University, Faculty of Education and Psychology**

**Ph.D. School of Education** (Head: Professor Éva Szabolcs)

**Research in Educational Science Program**

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**Resilience and Starting School**

Summary of the Ph.D. Thesis

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**Introduction, justification of the topic selection**

One of the most significant stages of childhood is the period of starting school. The developmental levels of children, who start primary school, can show great variance, and they also differ in the level of their “readiness” or “preparedness” to master the transition successfully (Smart, Sanson, Baxter, Edwards & Hayes, 2008). A significant percentage of children are indisposed by the new context and

the change, along with the need to fit in and perform well. On the other hand, other children can master the transition successfully, and might even perform above an expected level.

The dissertation introduces the phenomenon and concept of resilience as a new element in relation to the period of starting school. Resilience can explain a great deal of the successful coping with the problems associated with the transitory period. Resilience refers to good outcomes in spite of exposure to risk or stress (Masten, 2001).

Resilient children are able to locate and utilise resources in their own personality and their environment, as these offer help in coping with the difficulties and adversities. The introduction of resilience into the period of transition to school is significant as it signals a key period in the lives of children, and also because many of them demonstrate negative outcomes. By introducing resilience, a new perspective is available, which promotes the successful addressing of adversities, and makes the available resources clearer and more usable. Moreover, resilience can also inform parents and educators about the options available to make the transition smoother.

### **Aims of the dissertation, the hypotheses of research**

One of the most important inspirations to write the dissertation was the possibility to work in the development of a system that could serve as a model. The Pedagogical Assistance Services fulfil a crucial role in the diagnosis of developmental issues in childhood and adolescence. Such diagnostic activities can refer to screenings, such as MSSST or the screening of first graders, the assessment of special educational needs or integration, behavioural and learning difficulties, school readiness assessments, and the assessment of intellectual capacities.

The duties of the Pedagogical Assistance Services are not limited to diagnostic activities, they also provide specialised treatment for the children. Targeted professional interventions can contribute to the development of skills and abilities of children, their more successful learning and adaptation. The fostering of resilience is rarely seen as a declared aim of the interventions, but it can offer protection for the optimal development with defending the child against the effects of risk factors. The role of protective factors is particularly significant for children, who are exposed to multiple risk factors. The model used in the Pedagogical Assistance Services builds upon the early diagnosis of any potential problems, the thoughtful and wide-ranging recognition of the skills, abilities and personalities of children, and the provision of interventions if necessary. According to our opinion the earliest possible provision of services for children who demonstrate some form of developmental delay, can greatly increase the effectiveness of any provided services, can ameliorate the extent and amount of later problems. Moreover, interventions can help to achieve more positive developmental outcomes, by focusing on aspects outside the compulsory curriculum.

The most important aims of the dissertation are the following. I wanted to find out whether children, who are exposed to risk factors, but demonstrate resilient characteristics are better adapted in the school context compared to their peers who are also exposed to risk, but are not resilient. Can resilience make the transition to school easier? On the other hand, can better cognitive abilities to represent a protective factor for children, which is apparent in greater levels of academic achievement and better adaptation in schools. I also wanted to know if there is a connection between resilience and better levels of cognitive abilities. Finally, can resilience and cognitive skills be developed, so that they can support school success.

According to Masten and Powell (2003), resilience has two important prerequisites,

- The person is doing fine
- There must be demonstrable exposure to risk.

Masten (2001) is of the opinion that resilience is not exceptional, but rather general. She is of the opinion that the processes of human development can be viewed more positively. Resilience is considered as “ordinary magic”, which can be achieved in the majority of cases. Benard (2006) views resilience as the process of healthy human development. Resilience is an outward-bound process, which can influence the fate of families, classes, schools or communities (Benard, 2006).

Ungar, Liebenberg, Boothroyd, Kwong, Lee, Leblanc, Duque, és Maknach (2008) offer a new interpretation of resilience, which is perceived as an individual ability to find ways to better health, and the capacity of the social context to provide adequate resources.

According to Luthar (2003,) risk exposure is demonstrated by a 2X2 matrix, where one axis represents the outcomes of the child and the other one the level of the experienced adversities.

	<b>High levels of functioning and adaptation</b>	<b>Low levels of functioning and adaptation</b>
<b>No or minimal risk</b>	High functioning, non-risky	Problematic development despite adequate environment
<b>At least medium level of risk</b>	Resilient	Vulnerable

As the table demonstrates, resilience is only one of the possible outcomes in spite of risk and functioning. Not every child is able to master the adversities successfully.

Resilience is inherently linked to risk factors and protective factors. Werner and Smith (1992) defined risk as psychological or environmental variables that increase the prevalence of school

failures or the behavioural manifestations of less successful adaptation. Risk factors refer to environmental, biological, psychological or cognitive conditions that hinder optimal development and increase the likelihood of vulnerability.

Protective factors contribute to the individual well-being (Bscoe, 1999). Werner and Smith (1992) define protective factors as contributors to the alleviation of risk factors in the life of the individual. They decrease individual vulnerability and ameliorate environmental risk (Terminology, n. d.). In the majority of cases, these factors interact with each other and also with risk factors (Rahman, 1999).

According to various research studies, resilience is not an extraordinary phenomenon, it can be considered as an ordinary process (Masten, 2001; Masten and Powell, 2003; Fallon, 2010). It implies that the fostering of resilient characteristics and the modus operandi typical of resilient individuals is a valid and possible developmental aim.

Another significant topic of the dissertation is the period of starting school. Janus and Offord, (2007) collected the characteristics of children ready for the school, highlighting biological development, psychological abilities and social skills. The researchers of the topic of school readiness consider five distinct, but closely linked topics as specific indicators:

- Physical well-being and motor development
- Social and emotional development
- The attitude to learning
- Language development
- Cognitive skills and general knowledge (Doherty, 1997; Danis & Szilvási, 2011, Katona, 2010, Janus, 2006; Janus & Offord, 2007)

Contemporary professional views consider the readiness of the child, the readiness of the school, the readiness of the family and the readiness of communities as the most important factors of school readiness.

Hungary offers preschool (kindergarten) education to the majority of children and for a longer period of time compared to many other countries. However, kindergarten is not able to diminish the effects of disadvantaged backgrounds. The answer to the disadvantages and the inability of the kindergarten to compensate it, is the flexible start of school (Némethné, 2006; Danis & Szilvási, 2011). It enables children to start school at the age of six, seven and almost eight years. Petillon (2004) considers the start of school as an important life event, during which the child lives one institution behind and entering a new one, faces the difficulties to fit in and adapt to the

rules and expectations. Some children are inspired by this transition, but others experience it as a stressful event.

Nagy (2000) believes that critical cognitive abilities play a crucial role in the development of skills, competencies and personality. Such factors are the results of the assessment of intelligence and other cognitive abilities.

Our work in the Pedagogical Assistance Service follows these guidelines:

- Provision based on diagnostics
- Prevention and intervention provided as early as possible to reduce risks and compensate their effects
- The use of continuous assessments
- Cooperation with the institution where the child is (school or kindergarten), but also with parents

### **Methodology, participants, methods of data collection**

The methodology of the study was basically quantitative, but it did not rely on just one method of data collection. The phenomenon of resilience necessarily leads to the realm of qualitative methodology. Multiple data collection methods enabled to gather more accurate information about the subject (Babbie, 2010). Ponder (2007) considers the results of standardised tests and the data from questionnaires and rating scales completed by parents and teachers as quantitative methods.

One of the data collection methods was the use of resilience rating scales completed by parents and teachers of the participating children, while other methods were the use of test scores, such as the results of MSSST test, school readiness assessments, intelligence tests, screening tests of first grade pupils. These methods have enabled the development of a logical frame and timeframe for the purposes of the study.

The main aim of the present study was the identification of children in the participating sample, who do not demonstrate negative outcomes despite the presence of at least medium level of risk. These children are assumed to develop well, able to fit in their environments, and perform adequately in the school context.

The *hypotheses of the research* were the following:

1. Based on the extent of risk, the participating sample can be divided into high-risk and low-risk subgroups. This condition enables the distinction of high functioning, resilient and vulnerable groups.

2. The ratings of resilience by parents and teachers can help to identify resilient children, which differ significantly from risky, but non-resilient peers.
3. The outcome variables of the resilient subgroup do not differ significantly from the outcome variables of the high-functioning, not risky subgroup.
4. The resilient subgroup does better than the risky, but non-resilient subgroup, despite the possibility of problems and negative consequences. The resilient subgroup demonstrates better school-related outcomes, their performance is better, their adaptation more successful.
5. Better levels of cognitive skills represent a protective factor against the risk associated with school start. Resilient children and high-performing, not risky children have better results in cognitive skill assessments compared to vulnerable children. Their adaptation in the school context is also better.
6. Interventions show a positive association with academic performance and school adaptation. Pupils who achieve better results during interventions are expected to have better school-related outcomes.

Resilience was measured by a scale originally developed by Wagnild and Young (1993) and modified by Skehill (2001). I also made a slight modification to develop a scale for teachers and another for parents to rate the resilience level of children based on 12 items. The methods of cognitive assessment included standardised intelligence tests (WISC-IV, Raven Coloured Matrices and Budapesti Binet), Meeting Street School Standards Test, and the screening test for first graders, developed by Porkolábné (2005), including Edtfeldt test, Piéron test, Dyslexia Prognostic Test, and a task for graphomotor development.

The participants were children with whom I had contact during my time as an employee of the Pedagogical Assistance Service in Rakamaz during 2006 and 2010. The total number of participants was 493 pupils (229 girls and 264 boys). Considering ethnicity, 298 children were members of the majority ethnic group, 193 children were Roma, and 2 were classified as Other. The socioeconomic status of the children was characterised by the use of disadvantaged and highly disadvantaged labels. According to this label, 166 children were not disadvantaged, 198 disadvantaged and 129 highly disadvantaged. The participants lived and went to kindergarten and school in the settlements of Rakamaz, Tímár, Tiszaeszlár, Tiszanagyfalu, Szabolcs, Virányos and Bashalom. Apart from the participating children, their parents and teachers also provided valuable information by completing the resilience scales and by sharing their opinion about academic achievement and the success of adaptation in the school context.

### **Results of the research, opportunities for usability**

The results of the study indicate that the three proposed groups can be differentiated. The three groups are high functioning (good outcomes, no or minimal risk), resilient (good outcomes despite moderate

or high levels of risk), and vulnerable (worse outcomes, and at least a moderate level of risk). A fourth, significantly smaller group was also identified, which was called problematic (worse outcomes despite the presence of no or minimal risk). The latter was not included in the analyses and comparisons because of the low amount of children in the group.

According to the ratings of parents and teachers, vulnerable children received significantly lower points on resilience scales compared to high functioning and resilient children. The ratings of parents did not demonstrate significant differences regarding high functioning and resilient children, but the ratings of teachers rated high functioning children more positively on several items of the resilience scale compared to the resilient subgroup. The latter was rated better on one item of the scale only compared to the high functioning subgroup.

The comparison of high functioning, resilient and vulnerable subgroups reveal that vulnerable children have more problems compared to the other two groups. They need more intervention, which is also less successful, they are more likely to receive a diagnosis related to learning or behavioural problems. Their academic achievement and school adaptation are worse. They are more likely to receive a diagnosis of special educational needs, and are also more likely to repeat a grade. Based on the results of cognitive assessments, their disadvantage compared to the other groups is obvious, they achieve significantly lower scores. The scores of the resilient subgroup are better compared to the vulnerable group, but there are more areas where they perform worse compared to the high functioning group. Their intelligence scores are lower, and there are also other aspects of cognitive functions where they are outperformed their high functioning peers. Resilient children needed more intervention, which was less successful compared to the outcomes of high functioning children, and also their academic achievement and school adaptation were rated as worse by their teachers. Compared the three groups, vulnerable children had the highest probability to live in a disadvantaged environment, but resilient children were also more likely to be disadvantaged compared to high functioning pupils.

The interventions provided by the Pedagogical Assistance Service showed a significant positive correlation with the school adaptation and academic achievement of pupils. It has a strong predictive value regarding these outcomes.

Examining the ethnicity of children, it was obvious that Roma children were more likely to belong to the vulnerable group and their presence in the high functioning group was minimal. The perceived level of Roma children was lower by the rating of parents and teachers compared to the rating of majority children.

The predictor variables in the study, such as the items of resilience scales, MSSST screening, school readiness assessment, intelligence tests, and the screening of first graders, as well as the rating of the need of intervention, its success, being resilient or not, being risky or not, along with the diagnosis of

learning and behavioural difficulties and special educational needs, and the repeat of a grade significantly predicted the variance in school adaptation and academic achievement of the sample. The predictor variables were able to explain 88.5% of the variance.

The results of the study indicate that children exposed to higher levels of risk demonstrate worse outcome measures. High functioning, resilient and vulnerable subgroups were markedly different. These subgroups differ in their rating of resilience, their test scores, and also their outcome measures. The vulnerable group has the highest percentage of disadvantaged and ethnic minority children, which explains higher levels of risk factors, but at the same time also implies an important mean to support families and empower children.

As a conclusion, resilience can be understood as a realistic pedagogical aim, as it can be achieved by a significant percentage of at-risk children.

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