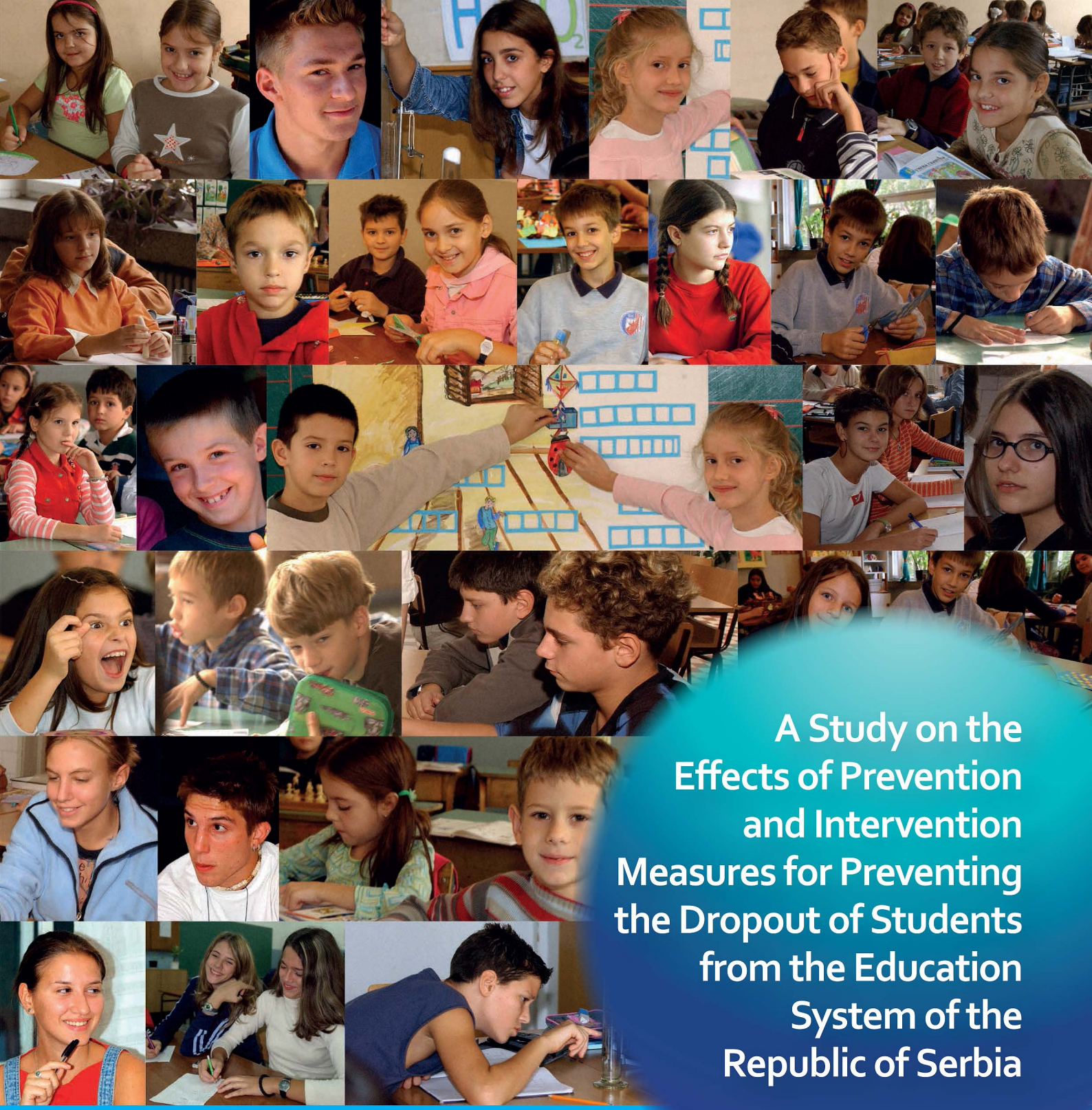

A Study on the Effects of Prevention and Intervention Measures for Preventing the Dropout of Students from the Education System of the Republic of Serbia

HOW TO BE A CARING SCHOOL

Centar za obrazovne politike
Centre for Education Policy

Republic of Serbia
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGICAL DEVELOPMENT

unicef

How to Be a Caring School – A Study on the Effects of Prevention and Intervention Measures for Preventing the Dropout of Students from the Education System of the Republic of Serbia

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All terms used in the Study in the grammatical masculine understand the natural masculine and female gender they are related to.

The term/s "Parent/s" in the meaning of biological parents and guardian/s are used in the sense of biological parent/s and guardian/s and refer to persons who took care or are taking primary care of students.

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List of Abbreviations

APA – American Psychological Association

CEP – Centre for Education Policy

CSW – Centre for Social Work

CVAE – Council for Vocational and Adult Education

DILS – Project Delivery of Improved Local Services

DPM - Dropout Prevention Model

DPT – Dropout Prevention Team in the school

EIS - Education Information System

ESL – Early School Leaving

EU – European Union

EWIS –Early warning and intervention system

GDP – Gross Domestic Product

IEP – Individual Education Plan

IEQE – Institute for Evaluation of Quality of Education

IC – Intersectoral Commission

IPDP –Individual Plan of Dropout Prevention

LAP – Local Action Plan

LFES – Law on Foundations of Education System

MoESTD – Ministry of Education, Science and Technological Development

MICS – Multiple Indicator Cluster Survey/ UNICEF research on multiple indicators of position of women and children

NEC – National Education Council

OECD – Organisation for Economic Co-operation and Development

OMC – Open Method of Coordination

PA – Pedagogical Assistant

RI – Risk Index

REF – Roma Education Fund

RT – Remedial Teaching

SDES – Strategy of Education Development in Serbia 2020

SDP – School Development Plan

SORS – Statistical Office of the Republic of Serbia

SP – Students' parliament

UN – United Nations

UNESCO – United Nations Educational, Scientific and Cultural Organization

UNICEF – United Nations Children's Fund

Foreword

Provision of quality education for each child is a priority of education policies throughout the world. Different education systems establish different measures and intersectoral cooperation with the aim not only to include every child into the education, but also to provide them with relevant support in achieving success during schooling as well as later in their life. Individuals who have achieved higher level of education have better life prospects, including longer life, better jobs, more satisfaction and general prosperity.

Studies realized by UNICEF in Serbia have shown that poverty is one of the main causes of dropout and early school leaving; therefore special attention has been paid to highlighting these problems and possibilities for reducing negative consequences of poverty on education and life of children and youth.

Measures which have proved to be successful are first of all of preventive character and they are implemented already at the level of pre-primary education and continue to be provided throughout the education by investing in the education of children from vulnerable groups in the form of additional, relevant and timely support. Results are achieved through a combination of individualized measures provided to the student at risk and system support to development of the quality and equity in education.

Activities of UNICEF are comprehensive and support the implementation of principles of inclusion in education by empowering the education system so that education would be tailored to the needs of each student. UNICEF has a close cooperation with the relevant local and national partners, ministries, institutes, schools and other education institutions, professional associations and associations of citizens with the aim to achieve an inclusive education of quality. In this action UNICEF realizes partnerships also with institutions and organizations outside the education system so that the support provided to children and youth would be comprehensive and coordinated.

In order to empower the education system for preventing dropout, UNICEF cooperates with relevant institutions concerning development of a national framework for preventing dropout as well as creating and testing innovative measures, models and mechanisms which can be implemented in schools.

Within the Project "Combating early school leaving in Serbia through effective dropout prevention and intervention measures at the school level" which was implemented by UNICEF and the Centre for Education Policy, in cooperation with the Ministry of Education, Science and Technological Development, a Dropout Prevention Model was developed and tested in ten primary and secondary vocational schools in Serbia. The model covers establishment of the system for early warning of students under dropout risk and reacting by applying relevant measures of intervention for each identified student, empowering the school representatives to independently create and implement various measures and activities in this field, as well as changing the school culture.

This study represents the results of the implementation of the Dropout Prevention Model in the selected schools. The aim of all partners who participated in the implementation of the Project is to provide a detailed insight to all interested parties into what has been achieved by the implementation of the measures for preventing dropout and acting at school level.

This study has shown that the created mechanisms are effective and that the schools have the potential and the capacity and adequate mechanisms to join the prevention of early school

leaving together with their partners at local level, with parents and students. We hope that our experience will inspire other schools in Serbia and contribute to systemic reforms in education with the aim to increase equity and quality of education for each child.

UNICEF in Serbia

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Team of Authors

Belgrade, October 20, 2016

Summary

This study represents the **evaluation of effectiveness and success of the Dropout Prevention Model** (DPM), implemented in 10 schools participating in this Project. This was done by comparing the situation in schools prior to and after the implementation of this model, by using risk indicators for dropout.

The model consists of three components. The first component is the Early Warning and Intervention System – EWIS, which covers activities and interventions at school level, but also joint activities with partners within the local community. Within this component, students with the highest dropout risk are identified and individualized support measures are created for them – the individual plan of dropout prevention (IPDP).

The second component of this model are measures of prevention and intervention at the school level, respectively, measures and activities related to involving parents, measures and activities aimed at obtaining peer support, and developing and processing reconceptualized remedial teaching.

The third component of this model relates to enhancing the capacity of the school and activities that have an impact on changing the school culture, and covers the training of the dropout prevention team in the school as well as training of all teachers.

In order to realize adequate monitoring of the effectiveness of measures and activities used in this model, the following dropout risk indicators have been selected as most important: absenteeism (absence from school), academic achievement, grade repetition rate and dropout rate. These indicators correspond to the indicators for monitoring the status quo in education developed by the National Education Council, but they are adjusted to the needs of the Project in order to more precisely monitor the desired reduction in the *risk of dropout* and *reduction of dropout.*

In the first part of the study, the theoretical frame is described based on which key dropout risk factors are identified and which indicators for monitoring the successfulness of the established model are selected. The theoretical part also highlights the importance of preventing dropout in the context of education as well as theoretical supports used in creating this model. After showing the results of the effectiveness of this model which covered monitoring the process of school transformation through quantitative indicators and qualitative analysis, building preventive dropout mechanisms, as well as special analysis of the effectiveness of individualized support measures for students at the highest risk of dropout, very exact recommendations are given for the education policies aiming to introduce this model into the education system of the Republic of Serbia.

The evaluation of the effectiveness of the model is based on data collected in the pilot schools based on:

1) Baseline Study questionnaire (the questionnaire was filled out by the dropout prevention team – DPT),

2) Prepared instrument (application) for identifying at-risk students (the instrument was filled out by the class teachers for each student based on objective data the teacher had and their subjective estimation) and

3) Results of focus groups with teachers, parents and students (the groups were realized by the representatives of the project).

External evaluators and education advisors monitored the advancement in two key areas from the Standard of Quality of the Work of Education Institutions – Ethos and Additional Support to Students.

The results indicate that the **10 pilot schools** selected from the whole territory of Serbia based on complex criteria which showed that these are schools with the highest risk of student dropout, **managed to considerably reduce their student dropout rate in comparison to the period prior to the implementation of this model.** The success of these schools with the hardest working conditions indicates that this model can be implemented as successfully in the rest of the schools where the challenge is not as great.

The selected schools reduced the student dropout rate by 66%. Before the start of the project, an average of 221 students left these schools in a single academic year; two years after its implementation, the average number of dropout students fell to 75.

Academic achievement was not increased in secondary vocational schools that participated in the project, but it was increased in the transition period when students start the fifth grade of primary schools, when the risk of dropout is higher for students at high dropout risk.

The absenteeism rate in the vocational secondary schools was reduced for app. 30%. A similar reduction of absenteeism was also found in primary schools, but after corrections for those students whose families left their cities in the refugee crisis.

Grade repetition rate was reduced by 23% in the pilot schools.

Findings of this analysis are especially important as a starting point for further individualization and adjusting of individual plans of dropout prevention (IPDP) which consist of individualized measures of support adjusted to the needs of students. **Out of the 450 students for whom IPDP was developed, only 25 students left school, which makes 5.5% of students with IPDP.** Having in mind that these students are at very high risk of dropout, that they are influenced by all or nearly all risk factors of dropout (and very often only one factor may lead to dropout), **these results indicate that the school can have a preventive impact even on those factors usually perceived as beyond the school's scope of influence** – high poverty, early pregnancy and marriage, serious problems in the family and serious problems in behavior. This is rather encouraging data indicating that this model should be implemented in all schools, both primary and secondary vocational schools. The findings we got are even more important and more convincing about the success of this model considering that students at high risk of dropout had a lesser sense of well-being in the school and a lower sense of being accepted at the beginning of the project.

Concerning the identification of individual at-risk students, after collecting data through specially prepared instruments, the so-called analysis of grouping was conducted, by which the "typology" of dropout risk factors was developed. It enabled us to discern how these groups of risk factors might differ, therefore, the analysis of grouping indicated whether there are different types of influence from dropout risk factors and what are their characteristics.

Another **important finding of this study is that students' dropout from the education system may happen at any point in their education**, although there are certain periods when dropout is more frequent (transition from classroom teaching to subject teaching) and that the decision of the student to leave education may be influenced by different risk factors. This indicates that the instrument for identification should be used more frequently and that

teachers should, through cooperation and exchange, harmonize their estimation of students, which is also an important recommendation for the improvement of this model.

The obtained data shows that students' dropout is a process and not a momentary decision of the student. Although at first it might seem that the cause of dropout is the lack of the students' interest in education, it was extremely important for schools to identify that what they usually called "lack of interest in education" was the final manifestation of bad living conditions and a number of inadequate systemic solutions for which the individual student cannot be responsible. Therefore, understanding the complexity of the phenomenon of dropout and its impact on social development, understanding that it is not a matter of a student's "personal choice" and relevant institutions and decision makers taking responsibility - these are the first steps that lead to the desired change and to creating the possibility for each individual student to remain in the education system until gaining a qualification.

Focus groups with students, teachers and parents were realized in order to get a full overview the state of the art in the schools and their usual practice in different aspects of school life, out of which prevention of dropout was examined as one of the practices. Focus groups also helped us to monitor the success of the project in the context of each individual school. In this way we indirectly checked whether our model was adjustable to the conditions in each individual pilot school.

Additional external evaluation realized by educational advisors indicated a considerable advancement in the field of Ethos and Additional Support to students in all pilot schools. Improvement is more visible in the schools which realized the Standards of Quality of Work of Education Institutions at a larger extent from the very beginning. The main result of the qualitative analysis indicates that the **internal process which followed the reduction of dropout rate in schools, besides the diversification of dropout prevention measures and intervention in situations when dropout is ongoing, was in fact a process of changes in perceiving the role of teachers - from the narrow understanding of their role as an expert in a subject to the role of a person responsible for the social role of the education system which includes caring for students.** Still, a number of teachers in each of the schools need additional empowering in this field.

Also, given the considerably more developed processes of internal cooperation, coordination and planning, with the accepted social role of the school, **in the local community the school is more recognized as an institution that "takes social care" of the future and life prospects of students, thus growing its own social reputation and becoming a „caring school".** Many of the parents report on the growth of reputation of these schools in the local community.

The main recommendation arising from the findings that indicate effectiveness of implemented intervention and prevention measures is that this model should be implemented in the education system of the Republic of Serbia in order to reduce dropout as well as dropout risk, and also to improve the climate in schools and overall support to students. The implementation of the model should be based on the use of teachers' estimation from the instrument for identification of at-risk students which would be discussed twice in a semester at the meetings of the teachers' council and within the professional councils.

Having in mind providing support to students, it would be desirable to broaden the role and the existing template of the IEP to provide a more detailed analysis of dropout risk factors, or IEP should be integrated into the IPDP – depending on the agreement of the participating parties.

Extremely significant findings on the importance of peer teams in changing the climate within the school indicate that it is necessary to **enhance and empower the activities of peer support teams** and to introduce legal possibilities for students' parliament to participate in the work of the school bodies such as the school board, with the right to vote. Enhanced activity of students engaged in peer teams and students' parliament lead to improved participation of parents in school life, as they were more willing to participate in school activities when invited by students.

A considerable number of teachers became aware that it is necessary to work on changing the practice that leads to grade repetition, by changing the interpretation of this event by moving most of the responsibility for the failure from student to the teacher..

Context

Human capital development and provision of quality education for all, as well as issues related to prevention of dropout from the education system have been the themes of public policies in the world and in Serbia for many years.

In the context of growing economic inequality and economic crises (Stiglitz, 2012) education is seen as one way out of the "vicious circle" of poverty. It is especially important, if we have in mind that poverty is one of the most important causes of dropout of students from the education system and inclusive education, among other, also means the increase of the education level of students from vulnerable groups and students with lower socioeconomic status. At the same time, data indicate that low education achievements of students from vulnerable groups can often be the trigger for dropout, especially if the school or the whole education system is not sensitive enough in adjusting the school and the education context to these students (Baucal, 2006). Also, according to the estimates, every penny invested in the education of children from disadvantaged groups in Serbia will triple in return.

In the Strategy of Development of the European Union – Strategy Europe 2020 (EU2020) one of the goals is that 40% of the population aged 30 to 34 should have higher education, and that the rate of early school leaving should be less than 10% (European Commission, 2010). The World Education Forum sets inclusive education, together with dropout prevention, as one of the five strategic priorities (UNESCO, 2015), and the Sustainable Development Goals 2015-2030 of the United Nations state the provision of inclusive and quality education and promotion of lifelong learning as one of the goals (UN, 2015).

Preventing dropout from the education system is recognized as one of the priorities in obtaining quality education for all also in the Strategy of Education Development in Serbia 2020 (SDES 2020) (Government of the Republic of Serbia 2012), which sets the goal that early school leaving should be less than 5%. This means that at least 93% of a generation should complete primary education, if we know that coverage by primary education is less than 100% of one generation.

A series of measures were introduced by the Law on Foundations of the Education System (LFES) in 2009 (*Official Gazette of RS*, No. 72/2009), inter alia, a change in enrollment policy, establishment of intersectoral commission (IC), introduction of pedagogical assistants and individual education plans (IEP), extension of compulsory pre-school program to nine months, etc., and although they do not deal directly with dropout prevention, they create a legal framework whose implementation should lead to a considerable reduction of dropout and early school leaving (in the sense it is defined at the EU level) and are measures that indirectly encourage dropout prevention. The successful implementation of these measures should, by increasing coverage and adjusting school to the needs of at-risk students, contribute significantly to the reduction of the percentage of students aged 18 to 24 without completed secondary education.

Amendments to the LFES in 2013 projected that, in the realization of the general principles of the education system, special attention should be paid to the reduction of dropout rates (Art. 3, *Official Gazette of RS,* No. 55/13).

It also stipulated the obligations of the National Education Council (NEC) and the Council for Vocational and Adult Education (CVAE) to monitor, analyze and make recommendations to reduce the rate of students dropping out of the education system and to establish proposals of measures for further education of persons who have left the system (Art. 14 and 16, *Official*

Gazette of RS, No. 55/13). Besides the obligation of these national bodies, in terms of the Law on Primary Education (Art. 26, *Official Gazette of RS*, No. 55/13) and Law on Secondary Education (Art. 9, *Official Gazette of RS, No. 55/13)*, schools also have the obligation to include the measures for dropout prevention in the school development plan (SDP) , as well as to implement and monitor them. At the same time, bearing in mind the frequent absence of students from the school (absenteeism) often leads to dropout. The Law on Primary Education (Art. 58, *Official Gazette of RS*, No. 55/13) stipulates that the primary school has the obligation to inform the parents/guardians that the child is not attending school. If the student does not attend the school even after that, the school is obliged to inform the relevant bodies in the local self-government.

Measures of support were also realized through various projects and programs, the most important ones being DILS and DILS/REF programs; a National framework for monitoring of inclusive education[1] has been prepared and indicators of the quality of education were defined within the National Education Council[2] which call for a detailed data gathering on the rate of dropout at all levels of education at the level of the Republic of Serbia.

With the support of the Social Inclusion and Poverty Reduction Unit and MoESTD, Serbia joined the activities within the Open Method of Coordination (OMC), where early school leaving prevention was a topic for one of the working groups.

However, the aforementioned regulation and existing mechanisms do not specify the exact measures and thereby provide space for the relevant bodies and schools to design these measures themselves. This means that effective measures of dropout prevention and intervention in the schools and in the local community are yet to be developed and tested in practice, although the legal framework for inclusive education does exist.

Measures of the community support to at-risk children and youth are rare (e.g., scholarship programs, mentoring within schools, additional and adjusted material support to the child), and when they exist, preventing dropout is not their primary goal. At the same time, cooperation with different partners at the local level is frequently weak and insufficiently focused on preventing dropout of at-risk students.

In addition, data on children who are not covered by the education system, as well as data on dropout, are not collected systematically, which hinders effective dropout prevention planning and the creation of an adequate system of monitoring and early identification of at-risk students. In addition, the education system has not resolved the issue of returning to the system of education of students who dropped out of school.

Taking this context into account, the project *Combating early school leaving in Serbia through effective dropout prevention and intervention measures at the school level*, developed and tested DPM in ten primary and secondary vocational schools in Serbia. This model includes the establishment of a system for early identification of at-risk students and reacting by applying the appropriate intervention measures for each identified student, strengthening schools' capacity to independently create and implement various measures and activities in this field and change the school culture, in order to evaluate its effectiveness and later the ability to get to the desired changes in dropout prevention at the level of the education system.

[1] Available at: http://socijalnoukljucivanje.gov.rs/wp-content/uploads/2014/10/Okvir-za-pracenje-inkluzivnog-obrazovanja-u-Srbiji.pdf

[2] Available at: http://www.nps.gov.rs/wp-content/uploads/2011/01/NPS-INDIKATORI.pdf

To ensure a common understanding of the desired changes (or changes which this project and study aim at), it is important to point out that the desired change means defining, at the school level, a set of measures effective in preventing dropout that could easily be applied in all schools in Serbia. This would mean that the funds earmarked for education are spent efficiently and rationally and does not allow the loss of qualified workforce through student dropout, thereby avoiding the potential social spending associated with low-educated workforce not being competitive in the labor market. Besides that, system measures that would enable at-risk students to complete education, at least reaching the level of secondary education, would increase social equity. Namely, although dropout is not present in the whole school population of the Republic of Serbia, it is obvious that students from certain groups are in danger, especially those from poor families. If the system does not support these students to finish their education, it directly and consciously keeps them in the vicious circle of poverty, leaving them helpless.

In terms of students, the desired change is reaching a situation where poverty in which the child is born does not become his fate, and where every child has the opportunity to change his life situation just by reaching a higher level of education (e.g. higher level compared to the level of parental education) .

Desired changes presuppose that we live in a society where education is highly valued, especially one provided by the educational system.

All that is stated in the following sections is the project's contribution to the reduction of dropout of students from the educational system of Serbia.

1. Dropout from the Education System – Definition, Importance of Prevention, State of the Art in EU Countries and in Serbia

1.1. Early school leaving and dropout – conceptual difference

It is important to explain the conceptual difference between the two related concepts, between *early school leaving (ESL)*[3] and *dropout*.

Early school leaving. The European Union has defined *early school leavers* as individuals aged 18 to 24, who are not enrolled in any education or training program and do not have a diploma of a secondary school in which education lasted more than two years. These can be students who either left school before completing a secondary school education, or attended certain vocational schools or trainings in different crafts, and their diploma is not equivalent to a secondary school diploma. That is, ESL students are those who dropped out (interrupted education before getting a diploma) and did not enroll into the next level of education (secondary school, in countries where it is not obligatory) and were not covered by education.

This definition excludes those young people who have participated in some form of education or training in the four weeks prior to the survey. Also, this definition excludes those students who have left, or interrupted secondary education, but returned to finish it before the age of 25.

This distinction is important when comparing data between different countries of the European Union with data from Serbia, mainly because, although it uses the same methodology for the countries of the European Union and Serbia (Eurostat - Labour Force Survey), the data on ESL for some reason seem somewhat optimistic when taking into account the data relating to the enrollment and dropout rate, which will be discussed later.

The strategy Europe 2020, when setting the objective that early school leaving in the EU countries should be decreased below 10%, speaks of early school leaving, not dropout.

Other organizations define ESL differently for their needs. These approaches are not significant for this study, but they should also be mentioned. Thus, the Organization for Economic Cooperation and Development (OECD) defines the same criteria to determine ESL, but for the ages 20 to 24 (GHK, 2005). Also, different authors distinguish between, one could say, broader and narrower definitions of ESL. According to a broader definition, ESL refers to all those that meet the previous criteria (have not acquired qualifications, regardless of whether or not they attended secondary school). According to the narrower definition, ESL refers only to those children who were enrolled in secondary or primary school, but dropped out (e.g. Montmarkuette et al., 2001; and Ferić Milas, 2009). The research on social exclusion in rural areas of Serbia (Cvejić et al., 2010) uses the EU methodology for monitoring social exclusion, and ESL is defined as the interruption of education before graduating from secondary school.

Dropout. This publication and the very Dropout Prevention Model are based on the narrower meaning of dropout. This term refers to those students who stop their education before gaining

[3] This term in English reads Early school leaving, however, recently it has been changed to Early leaving from education and training. This change speaks of a paradigmatic change, as narrowly understood education - which includes traditional institutional form of education - is replaced by a broader term "education" that includes other, more informal and newer forms of education. As in the Serbian language, the word "education" can encompass both of these meanings, we will use the term "early school leaving".

a diploma - or before finishing the started level of education, primary or secondary and does not cover children who were not enrolled in school, nor students who did not continue education after completing primary, compulsory, school education (although this phenomenon is also considered under the term dropout, it was not the direct focus of the project and results and interventions achieved in it). These students in Serbia, mostly under the impact of poverty and other problems (e.g. social, family, early pregnancy, etc.) leave primary or secondary school. In case of students of primary school, in most cases they drop out to join their families for seasonal work abroad or in Serbia. In case of students of secondary schools, they may enter marriage early, or they interrupt education and start work due to poverty, etc.

This is the key difference important for understanding the need to emphasize that the reduction of dropout actually reduces early school leaving (as defined by Eurostat), but early school leaving is a somewhat broader term - it shows the status of an individual when he should join the labor market. In the early school leaving there is the influence of the bad coverage of primary and, more often, of the secondary education, not only the dropout.

Finally, it is important to point out that the different definition of ESL may have far-reaching consequences in formulating measures for realization of key strategic goals. If ELS also includes the problem of coverage, besides dropout, i.e., children who never entered a primary school or were never enrolled in a secondary school, the measures for reduction of ESL must be completely different than when ESL refers only to those children who leave school. Nevertheless, as dropout to a great extent causes high levels of ESL, measures for preventing dropout are key for the fulfilling of the desired social outcomes. Dropout is also in the centre of this study as Serbia has a high rate ofeducation coverage, reminding that secondary education is not obligatory.

1.2. Importance of Preventing Dropout

Dropout is a very harmful and negative phenomenon both for the individual and for the society. On the one hand, the dropout rate reduces the opportunities of individuals to join the labor market and achieve a satisfactory quality of life, and on the other hand, it leads to a series of adverse social outcomes, such as, inter alia, increased crime rates, increased social spending and diminished health status of the nation. It is estimated that the Serbian state, for each student who left school before acquiring secondary school qualifications, loses about 78 000 euros over their lifetime.

Each individual who leaves school before completing secondary education reduces the possibility for personal and professional development, is exposed to a higher risk of poverty and social exclusion, and the country, in this case Serbia, as it was already stated, loses significant economic and human capital. This means that the country is forced either to pay more expensive compensatory education programs (second chance programs, for example) for these students or to allocate funds from the budget for their health and social welfare benefits.

Numerous studies show that people who leave school before getting secondary school diplomas can hardly find jobs (Stanard, 2003), often resort to crime (Harlow, 2003), and fall into the "vicious circle" of social exclusion more easily (Starc, Ofak and Šabic, 2006). The decision to interrupt their education has far-reaching consequences, especially in the post-industrial society, which requires at least a secondary school diploma to compete in the labor market. Statistics further show that people without secondary education can hardly earn enough for their own sustenance, are three times more likely to be unemployed and twice as likely to find themselves below the poverty threshold (Bridgeland et al, 2006).

In addition to greatly affecting the lives of individuals, early school leaving has a salient negative impact on a broader social plane. In the knowledge-based society and economy, which requires more educated workers, people with low education seem to have little chance of finding a job with a salary sufficient for a normal life (Christenson and Thurlow, 2004a). The importance of education and maximizing the chances of young people to participate in the global labor market becomes even more important in the global economic crisis due to the growing global social and economic inequality (Wilkinson and Pickett, 2010). The costs associated with people who leave the education system without acquiring basic qualifications for society are very high and it is estimated that billions of dollars are spent on programs for the unemployed, on vulnerable persons, prevention and prosecution, and lost taxes on earnings (Christenson and Thurlow, 2004b). Besides economic, achieving higher education level has a number of other private and public non-material benefits (Table 1).

	(A) Private	**(B) Public**
(1) Monetary	Earnings, Income, Wealth, Productivity	Tax revenues, Social transfer costs, Health care costs
(2) Non-monetary	Health status, Life satisfaction	Social cohesion, Trust, Well-functioning democracy, Political stability

Table 1. Possible economic and social outcomes of learning (OECD, 2010a: 48, taken from the publication Social Outcomes of Learning, OECD, 2007)

The categories of outcomes for people with higher levels of education are not independent of each other. Each of these outcomes may have an impact on the others. Both revenues and earnings can have a big impact on the health status of individuals. The pressure of poverty is associated with increase in diseases, a greater possibility of infection and unhealthy lifestyle. Of course, this influence can act in the opposite direction, i.e., health status can significantly reduce the opportunities for education and work of an individual, and therefore their benefits and productivity. Here is an example: private non-monetary benefits from social engagement can lead to public non-monetary benefits in the form of increasing confidence in the society and the development of social cohesion. Private benefits, cash and in-kind, can therefore be a means of attaining public benefits. Preventing dropout plays a key role in achieving positive cash and in-kind, private and public, benefits and increasing social cohesion. Due to such serious consequences for the individual and society as a whole, developed countries make great efforts to encourage as many students as possible to acquire any type of secondary education.

In spite of differences in the regulations of each EU member country, in the EU countries it is expected that each child spends on average 14 to 20 years in education (European Commission, 2009a; 2009b)[4]. For Serbia there are no reference data, as the list of indicators based on which the situation in education in our country could be monitored was only adopted in 2011 (NEC, 2011).

[4] Expected duration of education for five-year-olds is an estimated number of years a child aged five will spend in the education system during his lifetime if there is no change in the current patterns of enrollment. The indicator is calculated based on the parameters of population statistics. This is one of the indicators for monitoring the capacity and coverage of the education system of the EU countries. For example, in Cyprus this number is exactly 14 years; in Belgium, Sweden and Iceland 19, while the expected number of years spent in education is the greatest in Finland and it is over 20 years (European Commission, 2009b).

1.3. Dropout and Early School Leaving at International Level

Different countries have public or non-government agencies or organizations with the only duty to prevent dropout or early school leaving. The United States has a leading position in this as nearly every federal state has such an organization. In the European countries the number of organizations, institutions and agencies dealing with preventing dropout is constantly rising.

At international level there is the consensus that, although the efficient dropout prevention and reacting in situations when dropout is ongoing is characterized by intersectoral approach, the reaction to dropout and early school leaving has to come primarily from the sector of education in the form of comprehensive and harmonized measures. Such measures are not narrowly focused on the very phenomenon, but monitor a wide repertoire of dropout risk factors. In countries with good practices of dropout prevention, all measures at national level are defined at intersectoral level, but the implementation may be at the national, local or school level. Also, in these countries there is a difference between measures of prevention, measures of intervention and measures of compensation.

A review of measures of prevention, intervention and compensation for preventing ESL in different EU countries (European Commission, 2013) shows that the early warning and intervention system, together with improving the acceptance of students by including them in different extracurricular activities, represents a key measure of intervention. The inclusion of parents and peers is considered to be one of the most important measures of prevention, together with the high quality of education, which entails the adaptation of curricula, training of teachers, attractive education profiles in vocational schools, and adjusted career guidance.

It has to be highlighted that today, about half of the EU countries already met the strategic goal defined in the strategy Europe 2020, and in these countries ESL is already under 10%. This refers also to the countries of the former Yugoslavia, today EU members, so Slovenia and Croatia have ESL rate of about 5%[5] (Chart 1).

[5] It has to be pointed out that data for Croatia are marked as less reliable.

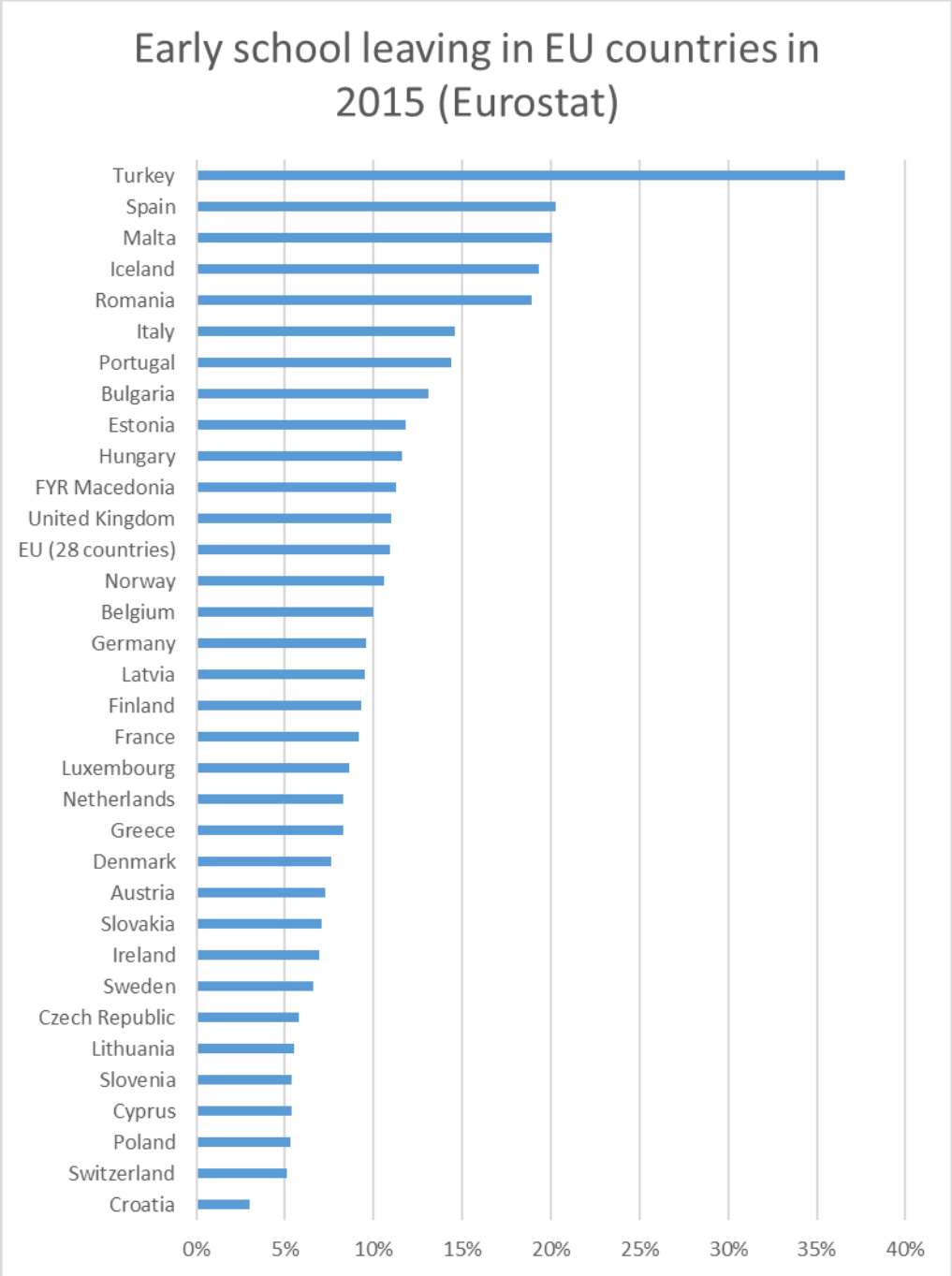


Chart 1. Early school leaving in EU countries (Eurostat)

1.4. Data on Dropout and Early School Leaving in Serbia

The Republic of Serbia does not have a methodology reliable and precise enough to capture the real rate of dropout.

According to the Labor Force Survey of the Statistical Office of the Republic of Serbia (SORS), the percentage of students who left school early (rate of ESL) in the Republic of Serbia is 8.3% (SORS, 2015). However, if we compare this data with the dropout rate in primary education, coverage by primary and secondary education and dropout rate in secondary education, this percentage seems to be too optimistic and as if it is underestimating the real early school leaving rate, although it may be the consequence of different compensatory measures (introducing the program *Second Chance*, for example, and the system of functional primary education of adults within it) and possible postponement of secondary school enrollment.

Data from the latest census in Serbia indicate that 12.03% of persons aged between 20 and 24 do not have completed secondary education (including those without completed primary education) (SORS, 2013b). Studies with samples sensitive to members of marginalized groups (MICS study, for example) indicate that dropout is significantly higher among these students.

Collecting data on student dropout at system level does not mean a sensitivity to the migration of students. Great variability and differences in data from year to year may indicate the sensitivity of data depending on the sampling process, as well as the necessary deficiencies in checking the validity of data referring to how education institutions complete SORS forms because of the large volume of data collected. The way the data is collected could also be improved and the existence of the Education Information System (EIS) should make this process significantly more performable and easier[6]. EIS would enable easier monitoring and

[6] SORS collects data on school leaving, but this rate is not sensitive to incoming and outgoing migration of the children. In fact, the final indicator of the rate of school leaving includes also those children who moved to another school. In order to get the real dropout rate, efforts have been made so that the rate of interrupting education would be corrected when it comes to the migration of children; however, there are no data on migration of a particular age group, but only for the whole municipality. Another effort to calculate the adequate dropout rate is to correct the rate of completing school in terms of coverage in the following way, as the rate of completing primary school includes also those children who were not enrolled or did not complete their education:

$$rate\ of\ completing\ primary\ education\ (V_1) = 100 * \frac{\text{number of children who finished 8th grade (a)}}{\text{total number of children aged 15 (b)}}.$$

SORS calculates coverage in the following way:

$$coverage\ (V_2) = 100 * \frac{\text{number of children in the school aged 7 to 14 (c)}}{\text{total number of children aged 7 to 14 (d)}}.$$

More precisely, the total number of children in the equation for the rate of finishing primary school (b) should be reduced for the percentage of children who are not covered by primary education: $V_{1kor} = 100 * \frac{\text{number of children who completed the 8th grade (a)}}{\text{total number of children aged 15 (b)} - \frac{b}{100} * (1 - V_2)}$ where 1-V_2 is the percentage of children not covered by education. The corrected dropout rate would finally be $O_{kor} = 1 - V_{1kor}$.

However, coverage is calculated in a way that it is not sensitive to those children who attend school in other municipalities, so that data in some municipalities show a coverage of 103.6% (Batocina), in Lapovo 109%, in Novi Sad even 118%. This happens because children living in one municipality attend school in another municipality and the total number of children is followed in the census from the school municipality so we get incredible percentages. The school completion rate, again due to the incoming migration, is also over 100%

analysis of trajectories of different cohorts. SORS cannot follow this, as the purpose of the data collected for SORS is different and they refer to the detailed overview of state of the art of different areas.

Rate of primary school completion. The rate of primary school completion in Serbia is high, but if we have in mind the somewhat lower coverage by primary education, especially in marginalized groups, the data do not seem to be that optimistic. According to the 2011 census, the rate of primary school completion was about 96.6% in the academic year 2011/12, and if we take into consideration the data according to which coverage is at about 94%, it is obvious that a significant percentage of students do not complete primary school (SORS, 2013a). It is estimated that about 6000 children leave regular education in one academic year in one generation during primary education. According to data, the rate of primary school completion rose to 96.60% in the academic year 2012/13. There is a growing trend and this is encouraging, but due to the already mentioned technical and methodological limitations, the data on dropout are somewhat worse.

This primarily concerns the rate of interruption of education. This rate in the primary education in the academic year 2011/12, according to the data and methodology of SORS, was 0.9%, and in 2012/13, it was 0.7%. In 2014, the rate of dropout was 0.4% and these were mainly children from marginalized groups. The highest rate of interrupting education in the aforementioned period was between grades 5 and6 - 3.1%, and the lowest between grades 3 and 4 - 0.7%.

Coverage by primary education. According to the Second National Report on Social Inclusion and Poverty Reduction in the Republic of Serbia (2014), coverage by primary education jumped to 95.7% in 2012/13. According to the statistical yearbook (SORS, 2015a), coverage in the academic year 2013/14 was 97.98%.

Rate of completing secondary education. The Strategy of Education Development in Serbia 2020 states, referring to available data, that the rate of dropout in secondary education was 2.3% in 2005 (Government of the Republic of Serbia, 2012). The rate of interrupting secondary education in 2012 was about 1.5% (SORS, 2013a). The rate of completing secondary education in 2014 was 83.6%. Concerning secondary education, the SDES 2020 set the goal to double the coverage of general secondary education and increase the rate of completing education up to 95%. It also has to be highlighted that the Republic of Serbia is one of the rare countries where secondary education is not obligatory, although it is foreseen by the above-mentioned strategy. Therefore it can be stated that our country is lagging behind the EU countries in terms of goals and indicators in secondary education, and that dropout prevention will reflect better on the general educational indicators.

Coverage by secondary education. Coverage by secondary education was about 85% in 2012 (SORS, 2013a) and about 90% in 2014 (SORS, 2015a). Net enrollment rate for secondary schools (percentage of students enrolling in secondary school in comparison to the number of students from the relevant age group) in our country increased from 76% in 2005 to 82% in 2009/10 and to 87.5% in 2013, and in 2014 the net enrollment rate, according to SORS, went up to 91.4% which is encouraging having in mind the planned introduction of compulsory

(for example, Jagodina has a rate of school completion of 109%, Kraljevo 109%, Požega even 111%). In order to get more qualitiative data from SORS, the questionnaires that are sent to schools should be improved so that schools could follow children according to their residence so that it could be avoided that some schools have coverage of over 100%, and to take into account the number of students coming to the school after the first grade (although they might have residence in the same municipality as the school).

secondary education. Data on coverage in 2014 indicate a somewhat better trend than in 2012 – coverage by secondary education of students aged between 15 and 18 was 87.5%. We have to consider this data when interpreting data on early school leaving according to the Eurostat methodology.

Data on the general population and data on the sample of students from vulnerable groups. The rate of completing primary education for children from the marginalized groups is low. The rate of completing primary education from Roma settlements in 2010 was very low, only 35% (MICS, 2012). This situation has improved and the latest data indicate that coverage by primary education of children from Roma settlements has increased. About 85% of Roma children from Roma settlements are covered by primary education according to data from 2014 (MICS, 2015). Various affirmative measures (enrollment to primary school without complete documentation, for example) and the work of pedagogical assistants have certainly contributed to this. Still, the same data indicate that the rate of completion of primary education among children from Roma settlements is still very low. About 64% of Roma children from Roma settlements complete primary education[7] (MICS, 2015). It is the same situation with the rate of moving to secondary education –only 57% of students from Roma settlements continue education which is in contradiction with the data on general population according to which 96% of students enrolled in secondary schools. Even more worrying are the data showing that the rate of attending secondary education in the general population is 89%, but in the Roma population this percentage is much lower – only 22% of children from Roma settlements of the relevant age attend a secondary school (MICS, 2015).

The phenomena of dropout and early school leaving are a challenge to education in Serbia so it is necessary to develop mechanisms of support for at-risk students and mechanisms for continuing education. This group of students also includes students from the Roma settlements. It is possible to draw clear conclusions fro the aforementioned data: students from Roma settlements who live under harder conditions are significantly less likely to enroll in primary school, more frequently leave school before completing education, very often they never complete it, and those who complete primary education in most cases do not continue education by enrolling in a secondary school. In this way, Roma from Roma settlements stay in the "vicious circle of poverty", while education is the most secure way for their social integration, a better chance for employment and greater social participation.

[7] Rate of completing primary education is the relation of the total number of students, reagrdless age, who enrolled the last grade of the primary school for the first time and number of children of the age when they should complete the primary school (age when they should attend the last grade of the primary school) at the beginning of the current (or last) academic year (MICS, 2015).

2. Phases and Process of Creating a Dropout Prevention Model in Serbia

The creation of DPM consisted of several phases and consultative processes with various actors.

First, experience of other countries where dropout was successfully prevented and measures created in their systems were studied (various reviews of international practice, elaboration of case study, study tours, use of international expertise, etc.). Besides that, challenges which these countries have faced while implementing strategies, as well as recommendations for preventing early school leaving were taken into consideration. Although experiences from other education systems are culturally mediated and cannot be simply copied as they are based on the specifics of social, economic and cultural context, it was presumed that it was important to take them into consideration as the goals of these measures are similar to the ones of our country – reduction of dropout and early school leaving. Also, we have had in mind that measures of prevention of dropout and measures of reacting, when it is recognized that a student is at risk of dropping out, may include different actors of the education system. Thus, in designing the model, primarily we discussed various measures aimed at three groups of stakeholders - schools, students and parents.

The second step was to identify the factors that influence dropout and the level from which they act. This was done based on the knowledge of local context, reviewing of national and international studies on dropout and early school leaving. Therefore, it was of special importance to identify different dropout risk factors and the level at which a certain risk factor acts so that prevention and intervention could be correctly directed and effective.

In particular, the research of the Institute of Psychology (Pavlović Babić at al., 2013) that was realized in Serbia was discussed. It gives a number of recommendations on measures for dropout prevention, but the authors also consulted representatives of organizations of the civil society dealing with education of children from the marginalized groups, as well as representatives of schools. So, in creating the DPM, special attention was paid to these recommendations about the more effective directing and providing of financial support to marginalized groups, regular attending of remedial teaching, etc., but also to the experience and practice of schools and organizations of the civil society.

The third step was the review of the existing regulations and reaching consensus on the current legislative and strategic acts giving a good basis for further work in making a concrete Dropout Prevention Model. It has been concluded that providing concrete tools, mechanisms and directives that would be integrated in the DPM should result in empowering schools in implementing legal and strategic frameworks with the goal to reduce early school leaving and social exclusion. It is important that the legal and strategic framework provide space for further formulation of education policies which intend, in a direct way, to reduce dropout rate in primary and secondary schools. For example, we mentioned the possibility that the school development plan should cover measures for student dropout prevention, and this would provide the possibility of creating measures which would be defined by bylaws or available materials and resources for their implementation. In this context, the piloting of the measures for dropout prevention reached its full meaning.

And finally, a draft model has been created for which we found to be sustainable and relatively "easy" to be introduced, that is - it could be built-in in the existing legal framework having in mind the possible later implementation of DPM in the education system of the Republic of Serbia, it relies on the current human resources in schools and it does not require additional

financial resources. Also, the measures in this model are categorized according to the resource of support, that is, according to who is carrying out the measures and whom is the measure aimed at. In selecting the measures that would become part of the DPM, the principle was accepted that on the one hand, it is necessary to provide individualized support to students identified as students at dropout risk, but at the same time it is necessary to make changes at school level in order to achieve higher inclusiveness, empowering of teachers and higher inclusion of both parents and students in the school life.

We also had in mind the following: (1) which are the most effective measures in countries which managed to significantly reduce the dropout rate from primary and secondary education (among others, inclusion of parents, support in learning and peer support) (2) the DPM is in line with the Standards of Quality of Work in Education Institutions (which are measured in self-evaluation of schools as well as in external evaluation, especially in the Area 4 – Support to students) and (3) that the change of the school is possible, if in this change students and parents are also included, and that support to students at dropout risk can only be provided without discrimination if the values at the level of the school started to be changed.

After that, DPM got its final "shape", so that suggestions and proposals were given also by representatives of different stakeholders (for example, The Ministry of Education, Science and Technological Development, Ministry of Labor, Employment and Social Policy, Ministry of Youth and Sport, Ministry of Health, National Education Council, Council for Vocational and Adult Education, Republic Institute for Social Protection, Social Inclusion and Poverty Reduction Unit, etc.). Also, UNICEF and the Centre for Education Policy organized and realized a study tour to the Netherlands, where representatives of the above-mentioned institutions participated. The aim of the visit was to get familiar with the system and mechanisms of dropout prevention, as it has been concluded that the Netherlands is an example of good practice and a good resource of experience that can be used as inspiration and support in Serbia.

It should be noted that DPM is primarily meant to be used at the school level, that it connects general cultural values and the direct environment of the child at dropout risk, but it also takes into account the way risk factors act from different levels, as well as general values, conditions and capacities of our education system.

In this regard, in the following chapters the most important starting points for the creation of DPM are briefly described, which include the clarification of the concept of risk used, research findings on the factors that lead to risk and risk factors at different levels.

2.1. Concept of Dropout Risk

The created DPM, whose effectiveness is measured in this study, is significantly based on the concept of dropout risk. The concept of risk, among other factors characterizing the individual, often meets with resistance among researchers in the social sciences, primarily due to its abstractness and arbitrariness, but this construct is increasingly used to explain human behavior. Originally developed in epidemiology and biostatistics, today, risk is defined as the tendency of individuals to engage in activities with an uncertain outcome (Kraemer et al., 1997 according to the Lee and Burkam, 2003).

As dropout is the consequence of a personal decision, but this decision is influenced by certain environmental, school, family and individual factors, it is hard to foresee it completely. However, it is still possible, less or more precisely, to describe the dropout risk if it is based on empirical findings in an environment where we are able to identify the risk factors. By a

successful identification of the dropout risk factor, it is possible to calculate how much more likely are the students with certain risk factors to leave school (for example, the student is from a family who gets social aid)[8]. For example, there is a greater chance that a student who leaves school at a certain moment previously had problems with absenteeism and grade repetition (Lee and Burkam, 1992), underachieving (Bryk and Thum, 1989) and a kind of alienation from school life (Finn, 1989; Lee and Burkam, 2003; Hammond, 2007; Wilson et al., 2011).

2.2. Factors Leading to Dropout

The dominant paradigm in studies dealing with dropout risk factors is the perception that the dropout risk factors are associated with the students themselves or with the context they come from (Hammond, 2007) and that they, in some way, represent their inherent characteristics. This is largely justified because poverty and low socioeconomic status are one of the factors that largely increases the risk of dropping out. However, this theoretical viewpoint, although largely corresponding to reality, only partially helps us in our efforts to make educational interventions that would reduce the dropout rate and provide guidance on the national level, in order to improve support for at-risk students and successfully prevent dropout.

Therefore, in recent years, more research dealing with dropout focuses on the school instead of students in attendance. However, these studies rarely mention the characteristics of the school that the school itself or individuals within the school have control of (e.g., management structure). Although the number of studies examining risk factors for school dropout rate keeps increasing, only a few studies foreground school as responsible for the dropout of students (Lee and Burkam, 2003). This is an essential problem because schools and school factors may be the most important factors, in cooperation with other local institutions and social protection measures (e.g., child allowance), which may try to influence the student and his family and so prevent dropout. Understanding the dropout factors is very important when creating DPM because changes in the school should be directed at changing the school factors that contribute to dropout and create a more inclusive school, ready to provide a better additional educational support to at-risk students. With this in mind, the part of the text that follows will describe the characteristics of the school, to which most space will be devoted, and students and their immediate and extended environment that present dropout risk factors.

School dropout factors. Certain "faults" in the education system and schools may speed up student dropout. Schools that are not sufficiently inclusive and do not promote the atmosphere of well-being and peer acceptance and cooperation between students, indirectly "lead" certain students to drop out from school, especially those students who, for other reasons (poverty, for example) are already at risk of leaving school (Lee and Burkam, 2003, Felner at al., 2007). Dropout rates were lower in schools with more good teachers (based on the evaluation of students) and with fewer students per teacher, and the dropout rate was higher in those schools with a larger number of students from marginalized groups, in schools in larger urban centers,in schools with a larger number of students (over 900 students), as well as in schools where teachers' salaries were lower and where grade repetition was more frequent (Rumberger and Thomas, 2000). Lee and Burkam indicate that, for example, in the United

[8] In the logistic regression analysis, which differs from the multiple regression analysis in that it has a binary criterion variable (in this case, 1= left school, 0=did not leave school), this is shown in the logarithm of odds, i.e., exponential logistic coefficient which is comparable with the regression coefficient in an multiple regression analysis. Also, the logistic model enables that, based on the data for each of the risk factors (i.e. predictor) the possibility can be calculated that a certain student will leave school. In order to make it possible, it is necessary to have empirical data on a representative sample for the risk factors for students who left school.

States, students coming from larger families more frequently leave or change school and are characterized by absenteeism, behavioral problems and underachieving (Lee and Burkam, 2003). Teachers in smaller schools take more responsibility for the success of their students than teachers in large schools (Lee and Smith, 1997). Findings indicate that reconfiguring school environment into "small learning communities", which are consequences of different interventions and changes in the school in order to adjust to the needs of students, contributes to the welfare of students, improves student achievement and reduces dropout (Felner et al., 2007). This is of great importance in large schools where relationship between teachers and students is somewhat less developed, so the improvement of this relationship is important for achieving the set outcomes (Riehl, 1999 according to Lee and Burkam, 2003).

The effect of the size of the school on different education outcomes, and also on dropout, is in main explained by organizational factors – large schools have fewer possibilities to build good relationship between students and teachers. For example, students who are not satisfied with the school stated they were not "connected" with teachers, even if they asked the school staff for help; dropout was higher where the social capital of the school was lower – measured through the relationship of students with teachers and according to whether teachers stated that they communicate with students outside of the classroom(Croninger and Lee, 2001), and it is more difficult to build this type of social capital in large schools. In those schools where neither informal relationships, nor the relationship of support are developed and where students under risk do not develop their own "social networks" where they feel good, dropout is higher. Qualitative studies also indicate that positive social relationships may create strong impetus with students to attend schools, even with those students who state that the school work is hard and whose expectations are difficult to meet (Lee, Smerdon, Alfeld-Liro and Brown, 2000).

We should not forget that the school is one of the most important creators of social capital that someone acquires, and that social capital can be one of the main generators of social inequality (Bourdieu, 1984; 1986). Schools that do not seek to integrate all students and do everything so that everyone feels accepted, in fact, encourage social inequality and indirectly cause the increase in student dropout. The development of social capital of students in school influences student development through the impact of incentives, social norms and support in making decisions that come from the social group to which the student belongs, and especially the behavioral patterns that shape the goals of individuals and their chances of achieving those goals, of which education and employment are one of the most important (Croninger and Lee, 2001).

The research conducted in Serbia (Pavlović Babić et al., 2013), indicates that different school factors may increase dropout rate. The results show that the presence of abuse, discrimination, insults and disrespect of students by teachers can often, combined with other factors, be a "trigger" for a student to interrupt schooling. Also, lack of preventive measures, such as individualized teacher-student relationship, peer interaction, participation of students and parents, is characteristic of schools with higher dropout rate, and often students who left school do not state that they participated in activities aimed at developing the sense of belonging of at-risk students. In this study it is concluded that among peers, in schools in Serbia, there are different forms of violence, abuse and discrimination, to which often there is no adequate reaction. Non-material resources in school, such as peer support, are not sufficiently used in dropout prevention. Finally, this research found teaching quality, i.e., insufficient adjusting of teaching process to the developmental and educational needs of students and insufficient support to students in learning to be key school factors leading to dropout from primary and secondary education.

It is therefore clear that although the dropout phenomenon is not just a school problem, it is a problem that happens in schools and almost all aspects of the functioning of schools can be factors that increase the risk of dropping out or significant means of preventing dropout from the education system if used in the right way.

The wider contextual factors of dropout. Broader social situation, economic development and certain social values in different environments can increase or decrease the risk of dropping out. As poverty and social and economic deprivation are the main cause of early school leaving, it is important to define the ways in which they lead to dropout. Socially and economically deprived children grow up in environments that are poor and they often decrease the possibility of obtaining intellectually stimulating interaction (e.g., children from disadvantaged groups are less likely to have access to picture books and books, which later affects the ability to manipulate images and words, etc.). Results from some countries show that children from families with lower socioeconomic status exhibit slower academic progress in school and lower academic achievement, and parents in these families pay less attention to the education of their children (OECD, 2010a; APA 2012)[9]; students from such families master the language slowly and acquire phonological awareness at a later stage and more often have difficulty in reading; students attending poorer schools also progress slowly (Aikens and Barbarin, 2008) and tend to have less qualified teachers (Ingersoll, 1999; Field, Kucera i Pont, 2010). All this speaks in favor of the fact that these students are forced to leave school because of poverty and take up opportunities for employment, if such an opportunity arises. If we bear in mind that some of these students have difficulties meeting their most basic physiological needs, then it is clear that the financial support is so important that it must precede pedagogical and psychological support.

In the mentioned survey of the Institute of Psychology (Pavlović Babić et al., 2013), which attempts to identify the key factors that cause dropout, it is found that schools in Serbia do not have reliable statistics on the number of students who dropped out of school, nor reliable record of the reasons for which students drop out or leave school. Poverty often forces children out of school and into the workplace, and the question is to what extent can the social benefits for the most vulnerable families be a preventive factor that would keep children in education. Also, the phenomenon of dropout has not been adequately recognized; however, it is often confused with demographic decline, migration and changes of school. Also, it often happens that a school enrolls students without the withdrawal letter from the previous school, which leads to the fact that neither the school nor the local self-government know whether the child continued its education in another school or interrupted schooling. There indeed is a greater risk of dropping out in a society that does not recognize the importance of preventing dropout, and this is evident in the inadequate data collection and inadequate understanding of the phenomenon and the importance of its prevention.

Factors of dropout coming from the student's immediate environment. In order to create an effective Dropout Prevention Model, it is important to understand also the factors that influence the student and are not coming from the school (Lyche, 2010). These factors are mainly present in poor environments and with students of lower socioeconomic status, and may, aside from poverty, also include problems in behavior. It is important to understand these factors so that these students could be identified more easily and that individual measures of support and

[9] According to the OECD terminology, families in socioeconomic danger are families which cannot provide basic supplies and conveniences for life such as adequate housing, food or health care, and the socioeconomic status (SES) of students is usually measured through incomes, education and occupation of parents.

prevention could be created and adjusted to their specificities. As cultural and geographical context have a significant influence on education and on students, it is desirable to refer to studies from Serbia and from the region.

Analysis of 12 case studies of students who interrupted education in Serbia (Pavlović Babić, 2013), indicates that these are students coming from families of low socioeconomic status and low level of education. In these families, pressed by the struggle for existence, parents usually do not have time to devote to their children's education. In these cases, these are families that are unable to secure basic living conditions: food and heating, and the social aid they use is not enough to meet all their needs, so students are forced to interrupt education and, if possible, start working. Often the seasonal nature of the work of parents leads to change of place of residence, as well as to sporadic interruption of the child's education, and upon returning, the child has difficulties catching up and the school does not provide enough support in that regard. In those municipalities which did not organize transport for their students (and in these municipalities there is a significant number of students living far from the schools), poor parents do not have the funds to cover travel expenses, so that becomes a reason for interrupting education. Students who left school are mostly from dysfunctional families and from one-parent families. None of the parents who participated in the study expressed their low valuation of education, but in practice it was observed that there was certain inconsistency with such statements, i.e., the behavior of the parents was not in accordance with the stated claims.

Risk factors affecting the students are intertwined and, often, the levels from which these factors also intertwine. The widest contextual influences (e.g., culture, value system) can mediate peer interaction, although schools, for example, can develop a series of systematic measures for dropout prevention. Also, a large quantitative study in Croatia has shown that the most significant predictors of dropout are similar and that these are low achievement, frequent repetition of grades, low socioeconomic status and low level of education of the mother; where the strongest predictor is grade repetition - for each repeated grade, school dropout probability increases four times (Ferić, Milas and Rihtar, 2010). This finding indirectly attests the importance of school and the school's ability to act preventively to reduce dropout. The qualitative results of this study include also narratives of secondary school students who left secondary school and suggest that the reason for leaving school, is especially the maladjustment of the school to their needs and interests, as well as a low socioeconomic status.

In primary school, the transition to subject teaching is the reason for increasing the risk of dropout. In secondary school, it is the first year when students have to adapt to the new school environment. The literature and researches also indicate that dropout is higher and coverage by education is lower in less-developed municipalities (according to the national list of development of the region and of local self-government units). The aforementioned study of the Institute of Psychology indicates that behavioral problems were often present with students who left education (Pavlović Babić, 2013).

Students also often drop out of school out of motivational and psychological reasons (particularly in secondary schools), which are associated with economic situation, i.e., the chance of dropout is greater when teaching is not adapted to the student - his intellectual development level, previous knowledge, motivation, cognitive style, his needs for additional support, and so on. The issue of motivation is very important in the context of dropout and it runs through the individual and the school dropout factors. Individualized teaching must involve teachers in the understanding of the complex nature of motivation. Motivation should be encouraged and focusing on the specifics of children's interests, and external goals and rewards (Hidi and Harackiewicz, 2000).

2.3. Levels from which factors leading to dropout act

In this study, the term *level* means something that is, within the ecological system theory of human development, described as series of mutually nested structures, among which the most specific level is the so-called microsystem.

It involves the direct relationship that the child establishes, for example, at home, in the classroom, school yard; but the relationship of the school with the local community and parents and peer group (so-called, mesosystem) is also important.

The exosystem may influence what is going on in the mesosystem, for example, relationship of the school might not be the same towards students whose parents have different occupations and who are of different socioeconomic status. And at the highest level, at the macrolevel of the system, subcultural or cultural values may create opinions and attitudes with its members and shape the relationships in the systems of lower levels (Bronfenbrenner, 1979; 1994; Lych, 2010).

A short presentation of the factors acting from different levels and their mutual influence may be seen in Picture 1, where influence from the highest level may be present in the acting from a lower level. Levels are presented at operational level (not theoretically as in the aforementioned ecological model), so that creating of measures is more focused, and the number of risk factors is reduced in order to provide a clearer illustration.

Picture 1. Impact of risk factors from different levels

2.4. Analytical Framework

Prior to the development of the Dropout Prevention Model, based on the identified dropout risk factors, a general theoretical framework was created which presented the dropout risk factors in a comparative way, interlocking them with the created measures for dropout prevention as well as with the existing measures of prevention in the education system and in the system of social protection.

The aforementioned studies and risk factors have been taken into consideration and it has been concluded that the future Dropout Prevention Model has to introduce, besides individualized measures aimed at at-risk students, measures aimed at the school environment which will make it more receptive to the needs of students. It has been concluded that it is necessary to change also the school climate if we want to have a more inclusive school that prevents dropout. The change of school climate should lead to a better relationship between students and teachers, students and peers, and this enhances the sense of being accepted for students from vulnerable

groups and students at dropout risk. This way, aside from focusing on providing additional support to at-risk students, DPM would also be aimed at changing the school itself and improving the quality of education.

We acknowledged that the National Education Council in a document entitled *The prevention, intervention and compensation measures of the educational system of the Republic of Serbia to prevent dropout and early school leaving: proposed measures on the basis of existing laws and regulations and international practice,* noted that measures which were proven to have the greatest impact in preventing dropout 1) aim to increase the quality of education, 2) are long-term, i.e., not focused, intense and of short duration, and 3) include support for families of students (direct support to families and better and more frequent participation of parents in school life) (NEC, 2015).

The current measures are categorized into a matrix depending on the influence of which factor they intend to prevent; a description of possible activities is given which can be realized within the presented measures (Table 2), and it was decided based on which criteria the measures would be systematized and categorized into a model that would be implemented in the pilot schools and whose effect would be evaluated later on.

Factors of dropout risk										
Suggestions for reducing dropout based on current analyses of measures (Kovač Cerović et al. 2013/Pavlović Babić et al.2013)		**Family**			**School**			**Local community**		
	Created measures for dropout prevention	Low academic achievement, rejection by peers	Poverty, migration, forced labor	Low valuation of the importance of education	Insufficient provision of additional education support	Diminished responsibility of school to prevent early school leaving	Transition to subject teaching (low individualized instruction)	Bottlenecks in Centre for Social Work	Insufficient funds to support education of poor children	Lack of records on vulnerable children
Creation of a new measure and way of its implementation concerning inclusion of parents/Support in learning and development of students, promotion of the importance of education	**Education of parents**	**X**	**X**	**X**			**X**			
Lack of school action/broadening of the network of PA	**Participation of parents in the school life**	**X**	**X**	**X**	**X**	**X**	**X**			
Better regulation of the obligation of the school to actively inform and include parents/Promotion of the importance of education										
Important system measure that both increases coverage and reduces dropout/Raising motivation for completing education	**Scholarships for students (families)**	**X**	**X**	**X**	**X**	**X**	**X**	**X**		
Extra effort in developing manuals and ways of realization of remedial teaching- directing from the compensation of grades to reduction of failure / External evaluation of the quality of work and provision of additional support	**Adjusted remedial teaching**	**X**			**X**	**X**	**X**		**X**	**X**
Better targeting of the measures of material support, (delivery of textbooks)/	**Material support (textbooks,**	**X**			**X**			**X**		**X**

Provision of intersectoral cooperation in the provision of material support	**supplies, free meals, clothes)**									
There is no system for early warning and identification of dropout – create it and implement it in the SDP and into the system of self-evaluation/Introduction of EIS, professional team for the support of school and intervention in case of dropout risk, training of professional associates for counseling of students	**Early warning and intervention system (EWIS)**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Trainings, new system of initial education, regulation of active teaching/Improving pedagogic competencies of teachers	**Continuous professional development**	**X**		**X**	**X**	**X**	**X**			
The recommendation is to find a systemic solution for the cooperation of the school with the CSW and IC, but it is important that the school helps in realizing the right to social welfare/Introduction of EIS, provision of intersectoral cooperation, training of professional associates for counseling of students	**Social protection in schools**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	
Create measures which act from the municipal level and may eliminate some of the greatest barriers (lack of information, exclusion, segregation)/Provision of intersectoral cooperation	**Local action plans (transport, monitoring, desegregation policy of enrollment, outreach services)**	**X**			**X**	**X**		**X**	**X**	**X**

Table 2. Analytical framework for the creation of the Dropout Prevention Model

3. Description of the Dropout Prevention Model in Serbia

Dropout Prevention Model. The model comprises three basic components (Table 3). The first component of the model is focused on precise identification of at-risk students and provision of individualized measures of support through the so-called individual plans of dropout prevention (IPDP) to students identified to be at dropout risk. The second component is focused on activities implemented at the level of the whole school with the aim to make changes that make the school more inclusive, open and sensitive to the needs of various students. Development of peer support and parents' participation within this component has the aim to increase the sense of well-being in the school for all students, especially for students at dropout risk. The new concept of remedial teaching intends to adjust remedial teaching to a large extent to students in a need of additional support, and to adjust the organization and content of remedial teaching to the needs of students. The third component covers improvement of teachers' capacity.

<table>
<tr><th>COMPONENT 1 – Early warning and intervention system</th><th>COMPONENT 2 – Activities related to improvement of the capacity of the school for preventing dropout</th><th>COMPONENT 3 – Activities related to capacity building of teachers aimed at the change of school climate and culture</th></tr>
<tr><td rowspan="3">Activities of this component cover identification of students at dropout risk through the Instrument for identification and development of individualized measures of support and through the Individual Plan for Dropout prevention (IPDP)</td><td>Activities at school level concerning higher participation of parents in the school life</td><td>Trainings for the Dropout Prevention Team (DPT)</td></tr>
<tr><td>Activities at school level concerning improvement of peer support</td><td rowspan="2">Training seminars focused on improvement of teachers' capacity for dropout prevention (at least 50% of teachers in each of the pilot schools)</td></tr>
<tr><td>New concept of remedial teaching</td></tr>
</table>

Table 3. Components and measures within the components of the Dropout Prevention Model

Below are described in detail the components and activities within the components of the Dropout Prevention Model.

1. Early warning and intervention system. The early warning and intervention system is based on the *Instrument for identification of students at dropout risk* meant for class teachers who assess every student based on this instrument. In lower grades of primary schools teachers filled it out only for those students for whom they supposed might be at risk of dropping out. Identification of the students by their class teachers, who are expected to know best all relevant aspects of the environment of students, was based on determining to which of the five levels of risk in each of the dropout risk factors the student belongs (see Appendix 4). Levels of dropout risk intensity within the instrument do not represent continual dimensions as in the scales of estimation, but may be described as levels of dropout risk intensity based on qualitative descriptions which tend to be exhaustive and mutually exclusive. Teachers were trained to complete this instrument. It consisted of psychological principles that must be followed,

guidelines on types of data on which the final assessment should be made, as well as of instructions how to recognize if particular risk factors act that are not immediately visible. To this end the method of case study was also used during the trainings.

Risk factors whose influence on students was evaluated by teachers were: socioeconomic status, absenteeism, academic achievement, student behavior, the existence of the conditions for social assistance, peer acceptance in school, and the existence of other risk factors such as abuse and neglect, teen pregnancy, repeating grades, exile, incomplete families and/or experienced trauma.

The level of dropout risk intensity in Group 1 represents the largest impact of dropout risk factors, while Group 5 represents the lowest intensity of risk factors. On the basis of belonging to a particular group, according to the weights based on the foreign and domestic research practice, the dropout risk index (RI) was calculated for each student. Levels of dropout risk intensity are designed so that they are more discriminatory for students at greater risk of dropping out, or at the lower end of the scale. The effects of the risk factors are weighted differently (based on existing research, domestic and foreign literature and knowledge of the education system in Serbia) for primary and secondary vocational schools in order to obtain a reliable index of the dropout risk for each student.

For students of primary schools the risk index was calculated as:

*RI=0.3*Socioeconomic status of the student+0.2*Absenteeism+0.1*Academic achievement+0.1*Behavior+0.15*Compliance with requirements/use of social assistance +0.1*Peer acceptance+0.05*Other risk factors.*

For students of secondary school the risk index was calculated as follows:

*RI= 0.25*Socioeconomic status of the student+0.2*Absenteeism+0.1*Academic achievement+0.1*Behavior+0.1*Compliance with requirements/use of social assistance+0.1*Peer acceptance +0.15*Other risk factors.*

The impact of socioeconomic status of students of vocational schools in the risk index has been somewhat reduced, because these students have reached the secondary school in which the effects of other risk factors become stronger, and the critical effect of very low socioeconomic status, which leads to decreased enrollment in secondary school, is decreased.

Weighted in this way, the factors may create a risk index from 0 to 1, i.e., from 0 to 100 where the risk index of 100 represents the maximum effect of all risk factors on the student. If the risk index is higher than 60, this means that the student is at a very high dropout risk, and index below 30 represents a student who is not at dropout risk (see Appendix 4).

Due to the mutual entanglement of risk factors and their combined influence, it often happens that, with the strong effect of one risk factor, along with some other factor, operates a risk factor which is not recognized. Therefore, the student for whom the class teacher estimates is influenced by a risk factor of the highest degree (level 1 for any risk factor), is treated as a student at risk of dropping out, regardless of the numerical index of risk.

For students identified to be at dropout risk, the Dropout Prevention Team (DPT), in cooperation with the professional associate of the school and coordinator for students at dropout risk, drafts an individual plan of dropout prevention (IPDP). IPDP has to be developed as it is important that the action is focused, based on team work, planned, individualized and monitored. It was recommended that the coordinator for the student's IPDP is a teacher with whom the student at dropout risk has the best relationship according to the estimation of the

DPT and the teachers. The development of IPDP meant additional testing of the student through instruments related to the assessment of motivation, expectation of teachers and sense of well-being by professional associates trained during the project. Based on the analysis of grouping of the risk factors (cluster analysis), which will be discussed in the section on results, the schools received guidelines on how to approach the development of IPDP, depending on the characteristics of the student and the combinations of the risk factor. The main guideline was that it was necessary that the measures are individualized to the greatest extent and that the guidelines are to be understood as "steps" which have to lead to a higher level of individualization. In the section on results, analyses will be presented which indicate the effectiveness of IPDPs. Schools created IPDPs based on the template which lead to collecting detailed data on students and to further testing and assessments of the students in order for the intervention to be adjusted to the individual student's need and to risk factors acting most intensely(see Appendix 5).

2. Activities related to the improvement of school capacities for preventing dropout. This component of the model covers activities at school level related to (1) participation of parents in school life, (2) improvement of peer support and (3) new concept of remedial teaching. Common characteristic of all the three components is that they are very adjustable to the needs and characteristics of the school. Namely, at the start of the project implementation the schools performed an analysis of their own functioning, dealt with weaknesses and strengths of the school, with opportunities for further development and threats that have to be removed (SWOT analysis). Through this process schools started to develop the action plan of activities which enabled them to adjust this component of the model as much as possible to their own needs and specificities. After completing the Baseline Study of a school[10] included in the project, data from this study, together with the consultations with school mentors[11] and narrative reports of mentors on the school, were used for further joint planning of the revision of the action plan and revision of the activities mainly related to the realization and implementation of this component of the Dropout Prevention Model.

Schools were proposed ideas that relate to a better involvement **of parents** and peers in school life, with the aim of creating a more inclusive culture within the school and increasing the well-being of all students, especially those at risk of dropping out. Activities proposed to schools that are related to the involvement of parents, among others, are: the involvement of parents in school activities through volunteering and optional activities aimed at school and/or local community intended to strengthen the sense of belonging, support parents and their cooperation with teachers in order to raise awareness among students about the importance of education, the involvement of parents of at-risk students in the parents' council or in the school board, the support of parents who are neighbors to parents of at-risk students by providing information, helping to maintain contact with the school, informing school on the risk factors, ensuring the participation of parents of at-risk students in the joint school activities (performances, celebrations, meetings), connecting parents of at-risk students with other parents and encouraging them to exchange information, work on self-esteem and a sense of belonging of their students, and so on.

[10] Baseline study was developed before the implementation of the Dropout Prevention Model, in line with the methodology for the evaluation of this model. See more in the section on Methodology.

[11] Each school participating in the project had a mentor who helped the school in implementing the Dropout Prevention Model. The mentor's role will be explained in detail in this chapter.

The proposed measures aimed at strengthening school activities at the school level that apply to **peer support**, among others, were: establishing a peer mediation and mentoring team, peer support in learning, active work of peer teams in ensuring the participation of less active children in extracurricular activities - especially at-risk students, exchanging information with the students about motivation, the importance of education, substance abuse and the risks of dropping out; then, a change of seating arrangement within the classrooms that will encourage mutual support and a greater sense of well-being for those students that are considered not well accepted, stronger peer support during the transition to subject teaching, and preparing at-risk students for this transition with the help of senior students; through learning, information on student assessments, information on opportunities for further education, studying in small groups, collaborative learning, etc.

New model of remedial teaching. Having in mind the conditions for the successful remedial teaching, a new model of remedial teaching has been developed based on the concept of having an "open" and flexible model which provides the school with a framework and structure for organizing a new model of support, in line with the specificities of the school, local context and students' needs.

Remedial teaching is a support to regular teaching and learning process that has to lead to a better and more successful proactive participation of students in the process of regular teaching and classroom activities and achieving outcomes and standards of achievement.

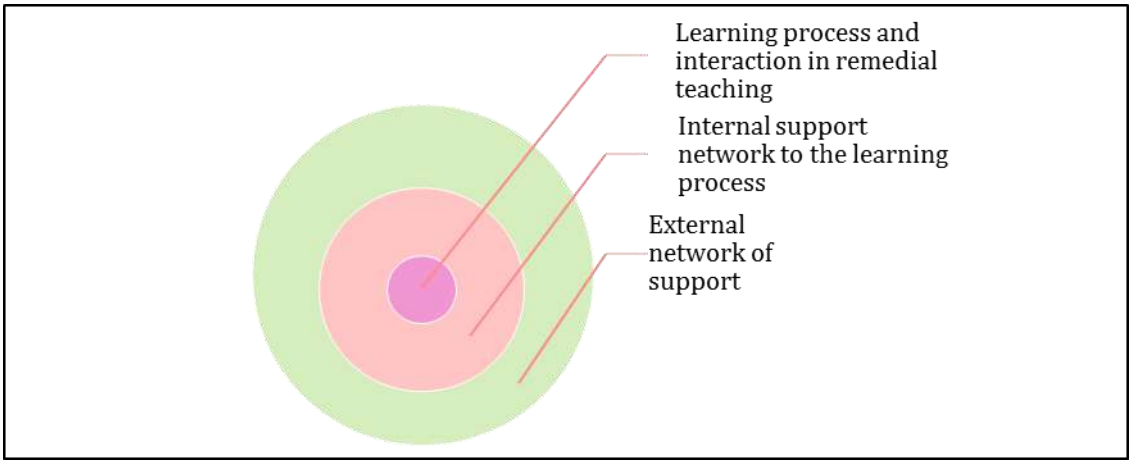
This support involves a different approach to teaching and learning to the approach used in regular classes; it implies an approach that is tailored to the educational needs of students, including diverse teaching strategies, materials and teaching aids.

In remedial teaching, the teacher uses different strategies to motivate students, provides an adequate and timely feedback, applies formative assessment and allows students to experience the feeling of success. The teacher uses individualized and differentiated teaching instruction.

Organization and planning of remedial teaching are based on a good knowledge of the educational needs of students and the prior knowledge and experience in a given field. Also, additional instruction is not in the hands of individual teachers, but is planned at the school level (planned together with classroom teachers, subject teachers, principals, professional services and parents).

Only through the cooperation of the aforementioned actors can all the relevant information about students important in the planning and implementation of remedial teaching be collected, and only then can new and innovative ways of organizing and conducting remedial teaching be created.

In addition to teachers and class teachers referring students to remedial classes, the student may apply to attend these classes on his own. To make this possible, it is necessary that remedial classes from students' perspective present an environment of support, respect and understanding, in which the student can adequately deal with learning obstacles. In order for remedial teaching to be perceived by students as a non-stigmatizing and supportive space, it is necessary that it is created in this way, as well as that it is promoted as such.



Picture 2. Reconceptualized model of remedial teaching

The reconceptualized model of remedial teaching consists of three broad components. Each of these components consists of several elements. Each of the elements is operationalized through several questions that support the design and planning of remedial teaching at the school level. This means that every school has its own model of remedial teaching, each of them has the same structure, but in a different elements that form the structure and are "tailored" according to the specificities of the school and of the school context.

Components of the model		
Component 1: External support network	Component 2: Internal support network	Component 3: Microsystem of interaction (interaction in the remedial teaching)
Elements of the model		
Venue, time, teacher, finance Parents: awareness, involvement, support, feedback School "development package": visibility, community/responsibility, team, self-evaluation, development plan, research of effects, rewarding success Broader, out-of-school context: community – associations (municipal, regional), research, models of good practice, publishing and media	Preventive measures in the course of the regular teaching process: program/criteria, structure of the class, formative assessment Consideration of needs: all children, criterion-diagnostic test Measures in the context of remedial teaching: support for the holistic development of the child (motivation, appreciation, experience of success, self-efficacy, goal setting), Test operate-test-exit (TOTE) model, list of tasks by difficulty, the repertoire of teaching methods, individualization, differentiation	Teacher: creativity, care, confidence in success, the motivational belief, high expectations, proper attribution, the human side of teaching Student: the purpose of knowledge, personal context, the experience of success, self-efficacy, trust ...

Table 4. Components and elements of the new model of remedial teaching

3. The third component covers the **program of capacity building for employees in the school**, which includes different types of trainings and mentoring. Trainings attended by the representatives of schools were mainly trainings from the Catalogue of Continuous Professional Development of teachers, pre-school teachers and professional associates for the academic years 2012/13 and 2013/14 and were primarily focused on the development of children and students (Competence 3) and communication and cooperation (Competence 4), and they included educational work, strengthening anti-discrimination, general issues of teaching, education of children and students in need of additional support, education in the languages of national minorities. Besides trainings focused on successful implementation of early warning and intervention, as part of the project activities, schools attended trainings focused on component 2, i.e., improving cooperation with parents, improving peer support, strengthening individualization and differentiation in teaching and learning, and formative assessment which is geared toward students' improvement. Over 60% of teachers from schools included in the project completed at least one training from the Catalogue, but all teachers completed all trainings from the project.

Project activities as support in the implementation of the model. The key idea and vision behind this approach could be described as a clear and structured support to the schools, but *respecting the school autonomy* in making all project decisions and the possibility that each component of the model might be adjusted to the needs and characteristics of each individual school. In addition to the grant awarded to each school that could be used for various project activities, including furnishing the school (10000 USD), each school had a mentor who provided support in the implementation of the model, development of the school action plan, processing SWOT analysis based on which the school action plan was developed, and also, the mentor prepared and conducted the trainings for the school in the areas deemed needed.

System of mentoring. Within the project each school was assigned a mentor – an expert with extensive experience in the field of education, development and implementation of trainings. Mentors were responsible to provide qualitative support to the schools and in that way support the implementation of recommended measures of prevention and intervention in the two schools in their charge. The mentor's duty was also to establish and maintain constant close cooperation with the representatives of the schools in their charge (primarily with the team for dropout prevention in each school), in line with the goals and activities of the project.

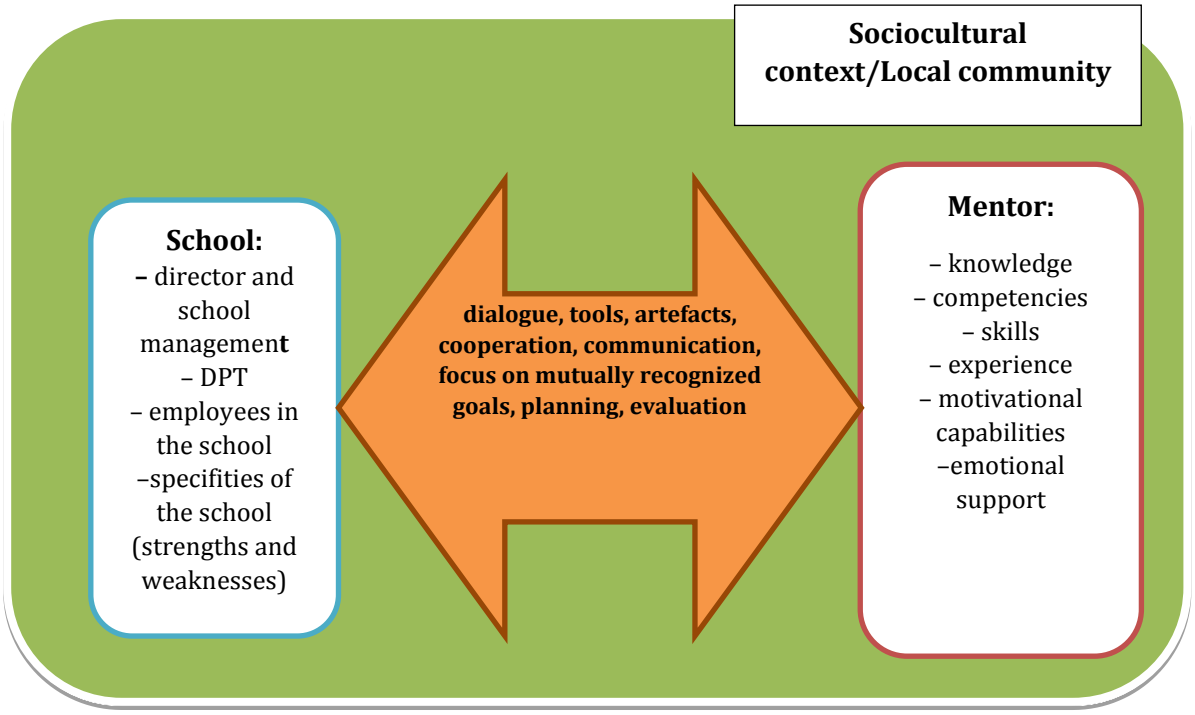
The mentor was also in charge of providing professional support to schools in the creation of school action plans, including the selection of additional activities, the selection of trainings and the creation of the training plan, mapping partners in the local community and creating a plan of cooperation with them. This implied a willingness to train and empower employees in the school according to need (training for all employees, proposing additional relevant literature, etc.), as well as providing professional support to schools in the collection of data necessary for the evaluation and monitoring of the project.

The mentor monitored also the quality in the implementation of measures and activities within the project and regularly sent reports on the improvement of schools and gave oral reports at the meetings of the mentor team and other project meetings.

Mentors also provided an emotional support thus creating a different teaching and learning culture (Hargreaves and Fullan, 2000).

The role of the mentor, in addition to the continuous communication with schools and focus on schools, included the exchange of experiences with other mentors, the project partners that

direct the process of intervention and model implementation, and the Project Steering Committee and other experts in this project. In this way, mentors were empowered and encouraged to present their concerns and dilemmas and through the exchange of experiences with other partners come to the most appropriate solutions and approaches.



Picture 3. Scheme inspired by model 4K (Buhberger, 2014) – Content of relationship between mentor and school

Created artifacts trying to bring about the change of school and teaching practices. Under artifacts we include all forms that are created as a result of human practice, aimed at permanently altering the given practice on the basis of previous experience of the community. In dropout prevention, as well as in any change that we want to introduce in schools, schools as organizations need to be equipped with the proper tools that ultimately alter previous practices. During the implementation of DPM in schools, a series of such artifacts were created aimed at permanent change of practices in order to test the justification for their use first in pilot schools, and then, if they prove to be successful, in all schools of Serbia.

This approach is based on the sociocultural theory of Lev Vygotsky, and in the works of the lately very influential Finnish scholar, Urja Engeström, who, so to speak, adapted Vygotsky's sociocultural theory for learning and changes in human collectives and organizations.

According to Vygotsky's theory, cultural artifacts represent tools created in the given culture, which enhance higher mental functions (e.g., conceptual thinking), where speech is the most important artifact which enhances cognition (Vygotsky, 1974). Speech goes through different phases of usage – from social, egocentric speech, i.e., loud speech which is directed to oneself and is the transitional phase before establishing mature inner speech that permanently alters the intellectual functioning. In this way, what used to be external, e.g., social, by signs, changes to the internal, the psychological, by restructuring it. One of the further directions of the development of the cultural-historical theory of Lev Vygotsky is moving the unit of analysis from the individual to the collectives and organizations, which is very important in the context of this project aiming to change and improve the work of the school; such an approach,

developed by Engeström, means that the organizational practice must be changed through so-called organizational artifacts which disturb the former functioning of the organization, in this case the school (Engeström, 1987; 2000; 2001). The created tool, i.e., artifact has the same importance for an organization, school in our case, as speech, i.e., sign has for the development of intellectual functions of a child. In Engeström's theory of activities, applied to the context of the school, sees teaching practices as inseparable from the school practices, which are again linked to the decisions within educational policies created at higher levels, as well as educational practice of other countries.[12]

The Instrument for the identification of students at dropout risk is the first tool (artifact) that was introduced in the system with the idea to bring changes within the Dropout Prevention Model. The implementation of this tool means establishing communication within the school where all class teachers start thinking about students and the dropout risk factors affecting them and give the dropout prevention team their assessments, which means that: (1) a horizontal network of exchange is established between teachers, and (2) teachers are directed towards assessing students not only in the school classroom context, but also in sociocultural context which covers different family, personal, educational values and practices mediated by the values of peers and parents.

The second tool is the instrument that has the aim to initiate dialogue with at-risk students on topics that are usually not discussed in schools. These instruments have the goal to examine students' attitudes towards school, their motivation as well as their observation on how they are perceived by the teachers. In this way, the implementation of these instruments had the aim to facilitate the creation of preventive measures within IPDP and to enable two-way communication between students and teachers. Taking into consideration the asymmetry of power between students and teachers, these instruments were a motive for conversation between at-risk students and professional associates in school and members of DPT. They discussed how they feel in the school context and how certain teachers contribute to their sense of well-being, motivation and expectations they set for themselves.

The third tool is the template for Individual plan for dropout prevention (IPDP) (Appendix 5). This template should not be perceived as an administrative obligation. It is developed with the aim to guide teachers and professional associates who provide additional support to children to get more detailed knowledge on family, education, value and peer aspects of at-risk students,

[12] The theory of activities is based on several principles. The first and the most important one is that the unit of analysis of human behavior and different practices is a system, i.e., a particular collective which is focused on a certain object (for example, in case of schools, it is the school focused on education of students), whose activity is mediated by a variety of artifacts (e.g. annual plans, teaching methods, textbooks), as well as that the same system may be influenced by other systems (e.g., universities educating teachers, institutions of the decision makers, research institutions and even practices from other countries). The division of labor and polyphony within the system (teachers with different perceptions and attitudes, different competencies and motivations) is the second important principle. Historicity is the third principle (let us recall the corporal disciplinary practices– rod, kneeling on corn which were transformed by the changes in the social structure). The fourth and probably the key principle for those dealing with changes in schools, is that the contradiction and tension are precondition for the change of the system – very often a new tool or object introduced to the organization (e.g., a new technology) creates contradictions to the current practice and routines. The fifth principle represents the possibility of extended change of each system that takes place based on other, qualitative transformations. There are always individuals who, by questioning the established norms, create system changes,a change of the school or education reforms (Engeström, 2001).

which may lead to the student interrupting education, but this information may also improve the student's motivation and the level of his educational achievements and aspirations. Creating support measures in line with this template requires the greatest possible level of individualization, that is, adapting to the specific needs of each student and his developmental and learning context, thus making these support measures more effective.

The fourth artifact is a new model of remedial teaching which aims to create an interaction between students and teachers where teachers become aware that this interaction is conditioned by broader contextual and organizational factors, with precise identification of the type of the support needed.

4. Evaluation of Effectiveness of the Dropout Prevention Model: Methodology

The research design. Evaluation of the effectiveness of DPM is based on a quasi-experimental design (pretest-posttest design without a control group, or a design of interrupted time series with multiple measurements before, during and after the implementation of the intervention). In order to better identify the temporal dimension of the effects of the application of the model on the change of dependent variables, or indicators, the data were taken from schools for the three school years prior to the beginning of the implementation of DPM. In this way, it is ensured to a greater extent that the effects of the intervention and the possible changes in the dependent variables, or indicators, can be attributed to the effects of the intervention with higher reliability, in this case to the model of dropout prevention. For the same reason, a measurement was also performed one year after the beginning of the DPM implementation. The first testing and data collection was conducted at the beginning of the school year 2014/15, when the data for the previous three school years were also collected. Other testing and data collection was carried out at the beginning of the school year 2015/16, while the third and final testing and data collection was conducted at the beginning of 2016/17. The methodology is based on quantitative and qualitative analysis.

The sample of schools for piloting the model. When making the decision on schools to be included in the project, based on official data of the Republic of Serbia, unique composite scores of dropout risk were developed for each municipality in Serbia. Based on these composite scores of dropout risk (see Appendix 1), 30 local self-governments were selected for which it was presumed that they have a large number of students at highest dropout risk and an open call was announced for schools from the selected self-governments.

This composite score, which was influenced to a different extent also by the index of the development of the municipality, the proportion of Roma population in the total population of the municipality, the number of students and the number of schools, the coverage of children by preschool education and coverage by preparatory preschool program, enabled that the additional support could be focused on those municipalities in which students were at highest dropout risk. The most affected municipalities were selected so that support could be given to them as school grants seeing that 1) they were in most need of help, and 2) if the implementation of the model through monitoring and evaluation proves to be successful in reducing dropout rate in those municipalities with the highest risk of dropout, this would mean that the model would be successful in reducing dropout in other municipalities that are less affected as well. Therefore, it is possible to make conclusion on the success of DPM based on piloting in 10 schools, as the model is developed according to the capabilities of the system and piloted under conditions representing the biggest challenge for effective implementation.

Out of the 90 schools that applied, the working group which included representatives from UNICEF, the Ministry of Education, Science and Technological Development (MoESTD) and the Centre for Education Policy (CEP), and according to the agreed and publicly announced criteria, 10 schools were selected, out of which four primary and six secondary vocational schools in seven municipalities.

The criteria for the final choice of schools took into account the number of at-risk students (Roma children in very poor financial situation, student refugees and internally displaced persons, students coming from families beneficiaries of some form of social assistance, the number of students in foster families, the number of students who travel to school, the number

of students who live in incomplete families), the capacity of human resources in the school to perform in the project, staff motivation for participation in the project and experience in cooperation with local partners, where the number of at-risk students and motivation of employees were the most important criteria when deciding on the final choice of schools for piloting the model.

Students assessed by the instrument for identification of students at dropout risk. Having in mind the vulnerability and poverty in the municipalities at the beginning of the project, it was decided that the class teachers would fill out the instrument for each student they teach. The instrument for identification of students at dropout risk was filled out by each class teacher for every student in all 10 schools. The instrument for students of the first grade of secondary schools was filled out at the end of the first quarter, so that the class teachers could have enough time to get acquainted with their students and that the students could show their first achievements. For the students of lower grades of primary schools the instrument was filled out only for those students whom the teachers considered to be at dropout risk.[13] In this way, data were collected for 5884 students and based on this, the composite risk index was calculated for each student from these 10 schools as well as the intensity of individual dropout risk factors acting in the pilot schools.

Quantitative research before the implementation of the project, after and during project implementation (pretest, posttest and research in the intermediate phase). *Quantitative research* intends to identify the changes that DPM intends to realize, based on important indicators (dependent variables) which can be monitored through available school data. These indicators are:

1. Reduction of dropout rate,
2. Reduction of absence of students (absenteeism)
3. Improvement in students' achievement and
4. Reduction of grade repetition.

These are dependent variables in the quantitative research and these indicators correspond to the indicators of monitoring the state of the art in education by the National Education Council, but they are adjusted to the needs of the project so that the desired reduction of dropout risk and reduction of dropout could be more precisely monitored. These data are collected based on a school questionnaire (Appendix 6).[14] In the intermediate phase, one year after the implementation of DPM in schools, data were collected on the dropout rate for each school.

This school questionnaire for the baseline and endline assessment, was used to get an overview of the situation assessed by the dropout risk indicators. Data obtained on the basis of this survey provide a picture of the school as a whole (its most important characteristics such as the number of students from vulnerable groups, average marks by grade, the rate of absenteeism, dropout rates, grade repetition) and, in addition, provide a description of activities that schools already implement and which are important for preventing dropout (current school practice aimed at preventing dropout, cooperation with the local community, cooperation with parents,

[13] Based on current studies and research, it has been concluded that students at dropout risk in lower grades of primary school are easy to identify, as the dropout risk in the first grades of the primary school is lower and the students at risk are selected according to the need for additional support.

[14] In the appendix the school questionnaire for the assessment of the initial state of the school is presented, somewhat changed versions were used for the assessment of the final state as well as for collecting data in secondary vocational schools.

remedial teaching practices, additional support to students and extracurricular activities organized by the school, etc.).

For additional analysis and presentation of the situation in the schools, data from the **instrument (application) for identification of students at dropout risk** were used (which were filled out by class teachers for every student and which were based on objective data the teacher had in combination with their subjective assessments). These data are mostly used as additional resource for providing support to students at risk and one of the ways for the evaluation of the effectiveness of measures of individual support to students. Concerning the identification of individual students at dropout risk, after collecting data with the help of an instrument developed specifically for this purpose, the so-called analysis of grouping (cluster analysis) was performed and the "typology" of dropout risk factors was created. Cluster analysis showed in which ways these groups of risk factors may differ, that is, it showed the extent of their influence and their characteristics. The findings of this analysis are particularly important as a starting point for further individualization and adjusting of individual plans for dropout prevention (IPDP).

When the students were identified as students at dropout risk, IPDP was developed for them. Prior to providing them with support measures, these students were assessed through **special instruments chosen by the school.** Indicators (dropout rate, absenteeism, achievement, rate of grade repetition) were recorded also for these students so that the effectiveness of individual measures of support could be tested. This analysis is presented in a separate chapter, after the main quantitative analysis that refers to data on all students from the pilot schools.

Qualitative research (pretest, posttest, intermediate phase). Although the reduction of dropout is the end goal of DPM, goals of piloting of this model - besides providing timely and adjusted support to children at dropout risk - were the changes in the school in order to achieve higher inclusiveness which includes adjusted teaching, higher participation of students and parents and increase in the well-being of students. According to this, besides the already mentioned qualitative indicators, focus groups were realized with students, teachers and parents prior to and after the implementation of the project in order to be able to monitor the *process indicators* that show the successfulness of the model in creating different aspects of changes in the school practice. The basic aim of monitoring process indicators is to note data that are difficult to collect in other ways, quantitatively, and that conclusions could be made on the differences between schools in successfulness of implementing DPM, so that in the end it would be possible to get the most realistic recommendations framework.

A number of dedicated guides for semi-structured interview were created (example of one of the guides in Appendix 7), which included various aspects of school life and its functioning. These were the following topics: a sense of well-being and acceptance of students in school, the quality of teaching and assessment and additional support, operation of remedial teaching, the school dropout rate, and the previous and the newly established school practices for reducing dropout, the inclusion of parents and students in school life and cooperation with the local community.

Focus groups with students, teachers and parents, i.e., the qualitative part of the research of the Baseline Study in the pilot schools, were realized in order to gain a better overview of the situation in schools and on their usual practices concerning different aspects of the school life; dropout prevention was examined as one of the practices. In this way we were given insight into the "school culture" and school processes in each of the pilot schools. This part of the research is particularly important, as all aspects of the school life may have an influence on the way in which the dropout prevention measures will be implemented in the school practice. Also, the

school context is conditioned by broader sociocultural patterns and at the school level there are many intertwined factors that can affect the way in which external intervention may change the school life, culture and climate. This intermingling, diversity and complexity of the factors affecting the school are sufficient grounds for using qualitative analysis in the evaluation of the effectiveness of the measures implemented to prevent dropout. Also, the lack of knowledge of the concrete conditions of the school, and lack of information about the "school life" and the interpretation of what is happening in the school through a universal form can impoverish the perspective of the observer and result in generalized conclusions common to all schools, at the expense of local and contextual specificity. At the same time, it should be noted that schools are institutions of a centralized education system that sets the rules for all schools of a certain type, and that different schools often operate in different conditions, primarily because of the economic, cultural and regional specificity of their context.

In the context of the model, i.e., measures and activities to prevent dropout undertaken within the framework of this project - both perspectives are important - one that looks at the performance of the model at the level of all 10 schools and guarantees its potential applicability in other schools, and the other that looks at each school individually and interprets the results of the success of the model in the specific context of each school.

Consequently, the largest part of the qualitative analysis of each school will be analyzed separately on the basis of several relevant aspects of school life that are important for dropout and implementation of DPM, which are in some respects relying on the Standards of quality of work of educational institutions in the relevant fields. This ensures that the quantitative results for each school are interpreted in a broader context that adequately represents the specificities of the school which can affect the success of the implementation of DPM.

Participants of the focus groups. Thirty focus groups were organized in the inception phase of the study and the same number of focus groups was organized for the Endline study after the implementation of DPM (a total of 60 focus groups). In each school three focus groups were organized, before and after the implementation of the project; one group with students, one with parents and one with the school staff. Namely, in October and November 2014, a total of 30 focus groups was organized in all 10 pilot schools. In June 2016, a re-examination was conducted through 30 focus groups with students, parents and teachers in all 10 schools (three focus groups with all groups of respondents in each school). Guides for focus groups are adapted to each focus group with various participants and are based on indicators of dropout risk, or examine a number of other aspects of school life that are important to see how DPM changes school culture and school practice, building on the questionnaire on assessment of the current situation in the school. The total sample for the focus groups is the following:

Initial focus groups – evaluation of the baseline		**Final focus groups - evaluation of the endline**	
Participants	**Number of participants**	**Participants**	**Number of participants**
Students	116	Students	111
Parents	83	Parents	94
Teachers	106	Teachers	110

Table 5. Participants of focus groups

Participants in the initial focus groups were chosen so that they would be, as much as possible, a representative sample of students, parents and teachers at the school level (with the requirement that the focus group participants should be of different ethnicity, students with different educational profiles in secondary vocational schools, parents of different professions and different socioeconomic status, whereas teachers - in different grades and different educational profiles). This method of selection of participants was carried out in accordance with the specificity of the topic, so that the participants were informed about it and were able to review the practices of schools from different perspectives. Participants for the final focus group were selected by the same principle, except that in comparison with previous participants, in each focus group several new representatives were included. The text that follows shows the characteristics of the participants in the final focus groups, and the structure of respondents was very similar to this and in the initial focus groups.

Additional data sources. Additional data sources that were used in order to increase the credibility of the framework for monitoring and evaluation of the model, are narrative reports of mentors who, from their own perspective, described the situation in schools, school activities and way of implementation of activities from the model, periodical tests of the dropout prevention team, as well as data from external evaluation prior to and after the realization of the project.

Limitations and advantages of the methodology used. It is important to point out some of the limitations that apply to the entire study, or to its findings. First, we should bear in mind the difference between the data collected through focus groups and mentors' reports, on the one hand, and data collected through various questionnaires on the other. While the former, for the most part, are the perceptions of the participants, and so by their nature subjective, the latter are the facts, and in this sense they can be regarded as objective as they relate to school data and do not depend on the assessment of the different actors. From a different angle this can be seen as an advantage because it simultaneously evaluates the process of change and its effects, and the ultimate results.

Second, biased sampling that was used in this study (selection of the most vulnerable schools and examining the effectiveness of DPM in areas where it is most difficult to implement) to some extent prevents standard use of statistical error and generalization on the general population under the usual criteria. On the contrary, the small effects in changes estimating impact indicators should be even greater in the general population of schools. From another perspective, this limitation could be seen as an advantage in ensuring quality and feasibility of the recommended educational policy.

Third, perceptions of students, parents and teachers presented in this study represent the perception of only those representatives of these groups who participated in the focus groups and it does not mean that all students, parents or teachers in the particular school are of the same opinion.

The fourth limitation is the lack of a control group of schools. This was compensated by the fact that data before the intervention were collected for a longer period than it would be the case in a classical experimental draft. Research assessment is that the effects of DPM would be even more visible if a control group had been used, because of systematic causes at the level of the whole education system that had a negative influence on the situation evaluated by the quantitative indicators. These are, primarily, the floods that affected Serbia at the start of the project, the strike of teachers and a refugee crisis that had an influence on the higher dropout rate of students from vulnerable groups.

The fifth, and possibly the most important limitation for this study, refers to the conclusions that have been made. This research is conceptualized as a research testing the effectiveness of DPM in preventing dropout in 10 schools where it was implemented; the schools were taken as basic "units" for the analysis, but all types of comparison of schools must be avoided as this study was not aimed to be a comparative study, but its main goal was to test the effectiveness of this model.

Anonymity and ethics. It is important to mention that anonymity of all participants in the research (students, parents and school staff) was an important aspect of data collection, analysis and publication. Primary data was collected within the focus group interviews with parents, students and school staff. Focus groups interviews were conducted in accordance with the national standards, namely official standards of the Serbian Psychological Association and the Educational Research Association of Serbia, which are in line with international ethical standards. It means that all focus groups participants were informed of the purpose of the research, topics in focus, principles of voluntary participation, and the fact that their names will not be visible to anyone but the researchers. As for the secondary data, individual plans aimed at individual students' support were protected using a special identification number ("coded") and were intended primarily for school use. All data was collected in cooperation with the schools and the parents of all students who were provided with individualized dropout prevention support gave their written consent on the use of data for research purposes, upon presentation of all relevant information (informed consent). Secondary data that schools already collect and use, as an obligation imposed by state legislation, were also used anonymously. All published data are aggregated at the level of schools, and respectively, at the general level of students, parents and school staff, hence, anonymity was preserved also in that respect.

Prior to data collection, internal ethical reviews and discussions within CEP and UNICEF as partners were conducted. Adopted methodology and its ethical standards were in line with the national legislation and The Serbian Psychological Association, which are, again, in line with international ethical standards. CEP's researchers, who collected the data and produced the research, are also members of the Educational Research Association of Serbia, which has binding regulations such as Code of Ethics. Also, consultations were held with the Commissioner for Information of Public Importance and Personal Data Protection (autonomous public authority), in order to ensure the application of the official requirements and procedures.

All conclusions and lessons learned in the final part of the study refer to all schools and should be used as a basis for the recommendations that could refer to the whole education system of Serbia, in particular if we have in mind the intentions that DPM should refer to the education system as a whole, that this model was implemented in schools working under harder conditions than average schools in Serbia. And finally, all conclusions and interpretations, as well as possible errors in this study are the responsibility of the researchers only.

5. Evaluation of the Effectiveness of the Dropout Prevention Model: Results

In this chapter the results of the quantitative analysis will be presented, which refer to the monitoring of four key indicators that show the effectiveness of DPM.

5.1. Dropout rate

The results show that on average, when we look at all 10 pilot schools, there was a significant reduction in dropout rates compared to the situation before starting the intervention. When we compare the data for the three years before the beginning of the project (school year 2011/12, 2012/13 and 2013/14), the schooling was interrupted by an average of 221 students in one school year. At the end of the project, after two years of implementation, during the last school year 75 students left the school. This means that the dropout rate after the implementation of the project was more than halved, i.e., reduced by 66.1% in all pilot schools.

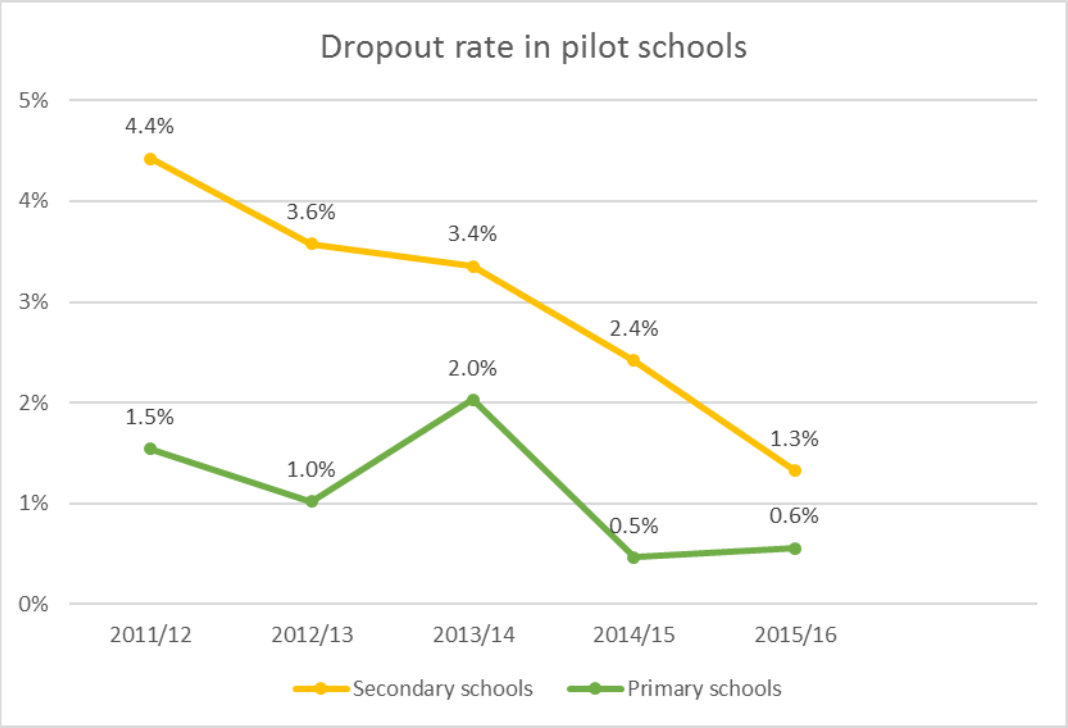


Chart 2. Dropout rate in pilot schools

As it can be seen from Chart 2, there are notable variations in dropout rates for the school years prior to the implementation of the project (2011/12, 2012/13 and 2013/14), but there is also a noticeable decline in dropout rate after one year (2014/15) and after two years of project implementation (2015/16). These data clearly show that the model managed to significantly reduce, or halve the dropout rate, both in primary and in secondary vocational schools.

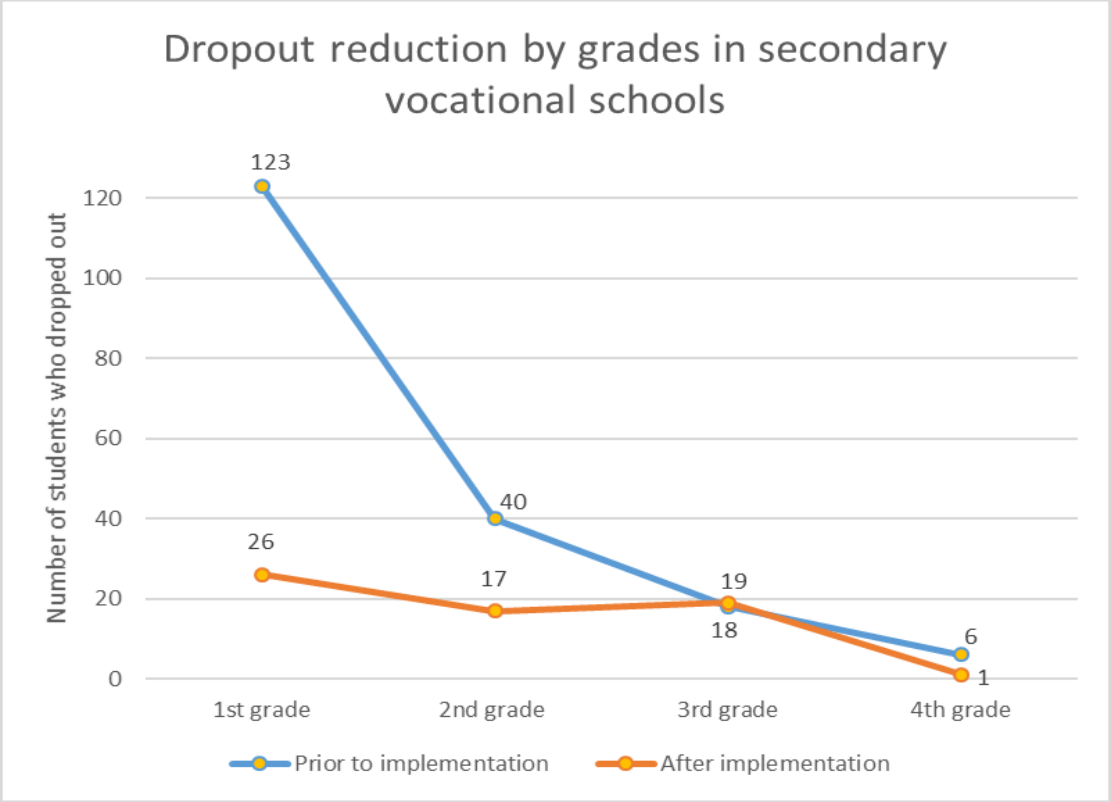


Chart 3. Dropout reduction by grades in secondary vocational schools

As can be seen in Chart 3, based on the average data for the three years before the beginning of the project and on the data from the final year of the implementation of the project, the model was the most effective where the dropout rate was the highest, and it is in the first grade of secondary vocational schools when students have to largely adapt to the new environment. This is the result of instruction given to schools that is in line with the results of the Baseline Study. These schools have received information that the highest dropout rate was in the first grade and that special attention and support should be offered to these students. It is likely that this has led to the biggest reduction of dropout in the first and in the second grade, because the individual support to students started in first grade and continued in the second grade.

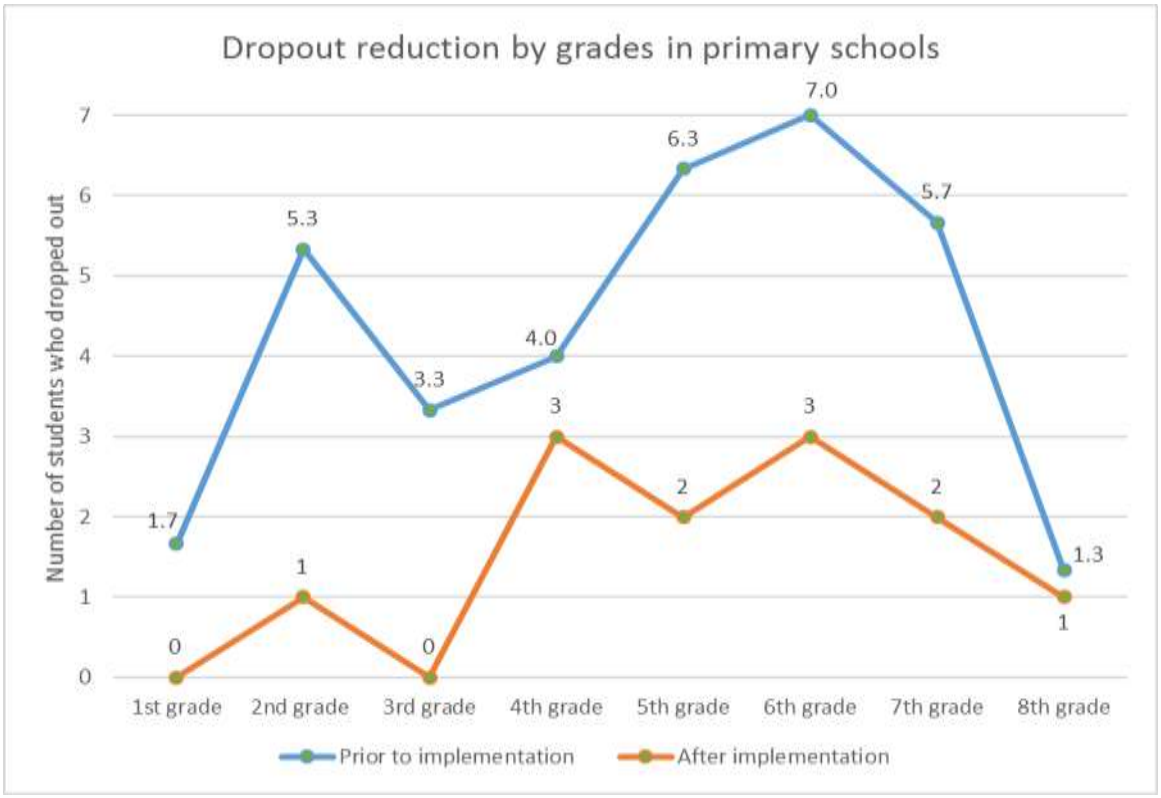


Chart 4. Dropout reduction by grades in primary schools

As in the previous case of the secondary vocational schools, based on the results of the Baseline Study, the dropout rate in primary schools was the greatest when students took up subject teaching (fifth and sixth grade). Schools were acquainted with the data through the implementation of a Dropout Prevention Model and special attention was directed at supporting students in this period of education, which resulted in the greatest effectiveness of intervention for these students (Chart 4).

Dropout of students with Individual plans for dropout prevention (IPDP). Primary schools have developed a total of 139 IPDPs, and of these students only 5 (3.5%) left school. Bearing in mind that these are the students at very high risk of dropping out, who live in conditions of extreme poverty that are connected to various other problems, this can be considered a very encouraging data that indicate how the school is actually able to prevent the risk factors for which it is commonly thought that they cannot be influenced by schools and that this exceeds their capacities.

During two years, in secondary schools, a total of 311 IPDPs were developed. Out of these 311 students, the schools estimate 70, thanks to the provided support, are no longer at risk of leaving school. Out of these 311 students who received individual support only 20 (6.4%) left school. In all pilot schools, during two school years a total of 450 IPDPs were developed and 25 students (5.5%) left school. These data indicate the very high effectiveness of individual measures of support, having in mind the very difficult situation of students for whom IPDPs were developed. It should be noted that in the situation when secondary school is not compulsory, this approach should not only be recommended, but it can be said that it is necessary in terms of dropout prevention. These data can also lead to the conclusion that those students to whom the school did not pay attention are far more likely to dropout, i.e., students who were not identified to be at risk when they were first tested by their teachers – these students make 78% of those who dropped out.

This means that it is necessary to more frequently apply the instrument for identification or the horizontal exchange between teachers in the schools should be improved concerning problems their students are faced with. It is necessary to more frequently collect information on students in the school, as, according to reports of schools on these students who left school, some of the dropout risk factors started to act on them unexpectedly (e.g., sudden unemployment of the parent, teen pregnancy, etc.).

5.2. Academic Achievement

Data indicate that the implementation of the model did not contribute to general rise in students' achievement in the secondary vocational schools; even the general marks at the end of the school year 2015/16 are slightly lower than prior to the implementation of the project in secondary vocational schools. This can be the result of the fact that the negative practice of grade repetition and sending students to repeat exams has been changed, so there are more satisfactory marks that reduce the average, but it can also be the result of a lower dropout rate as students who previously largely left school have lower grades and this has a negative effect on the average grades.

However, the effect of the implementation of the model is visible in the academic achievement of students in primary schools.

More specifically, the positive changes in academic achievement in primary schools are much more visible, especially in the period of transition to subject teaching, where dropout rates are the highest. This may indicate a greater willingness of teachers in primary schools to meet students' needs and to more individualize teaching and provide additional support. These data are encouraging, given that in this period the students largely form their academic self-perception, a sense of self-efficacy in the school context and academic self-concept, for whose formation the academic achievement and public feedback, such as school grade, is of great importance.

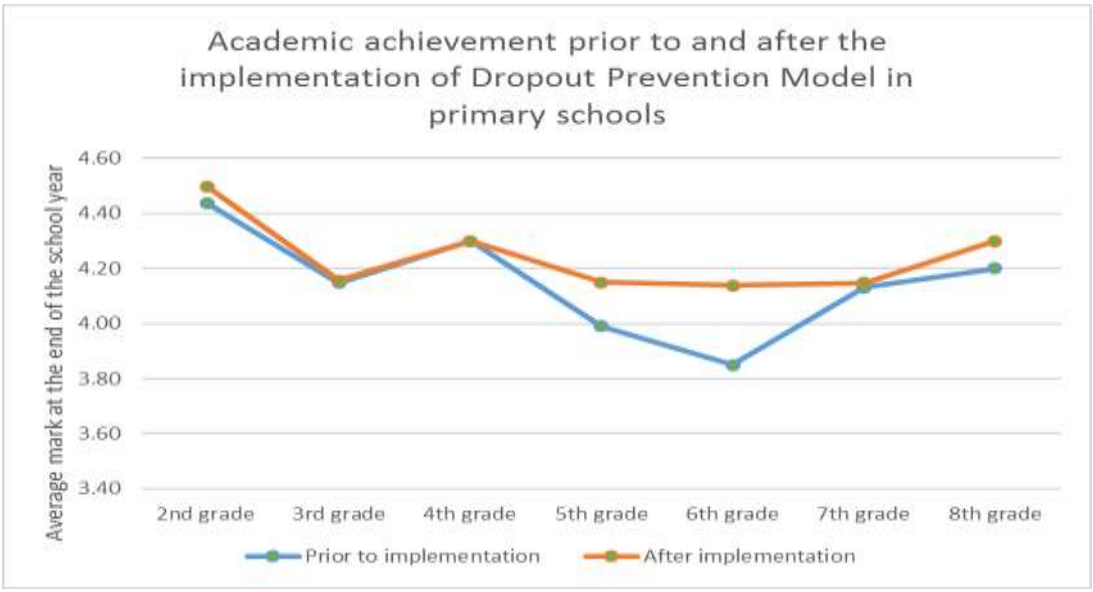


Chart 5. Academic achievement prior to and after the implementation of the Dropout Prevention Model in primary schools

It also has to be noted that the model was not directly aimed at improving academic achievement, but at dropout prevention, although it contained also important components directed at improved individualized and differentiated teaching as well as a new model of remedial teaching whose implementation started at the very end of the project, so it could not have full effect due to the short time of implementation.

5.3. Absence Rate (absenteeism)

Due to different practices of excusing classes in different schools, the sum of excused and unexcused absences per student was taken as a measure of absence (absenteeism) from classes, taking into account that factors such as illness and other reasons for excused absence act in a similar ratio in all schools. Differences in absenteeism within schools may indicate some other factors that influence higher absence (anxiety, behavioral problems, not being accepted by peers, low achievement, etc.) and indicate a higher risk of leaving school. In order to examine the practices of excusing classes, data on excused and unexcused classes of students were analyzed. In secondary vocational schools, unexcused classes do not differ much per grades and in average they never reach over 17 unexcused classes per student in one school year, but nowhere are there less than 10 unexcused classes per student from each grade, except in the Agricultural and Chemistry School "Dr Đorđe Radić" from Kraljevo, which indicates that, in secondary schools, the number of unexcused classes increases up to the criterion that defines a serious breach of the obligations of students. In primary schools the situation is somewhat different. All schools, except the primary school "Jovan Jovanović Zmaj" from Surdulica, have a very low number of unexcused absences per student. In the primary school in Surdulica a great number of students go abroad for seasonal work with their families, so they have a great number of unexcused absences in all grades (even up to 70 per student), except in the eighth grade.

The data show that there has been a large decrease of absence per student in secondary vocational schools, and this can be, with great probability, attributed to different components of the Dropout Prevention Model which sought to increase attendance (peer support, information on absence, inclusion of parents, support measures for students, etc.). The trend of absenteeism per grades is similar prior to and after the implementation of the model (e.g., it is the lowest in the first grade of the secondary school). On the whole, absenteeism amounted to 117 classes per student in a year, but after the project it was reduced to 83 per student in a year (reduction of 30%).

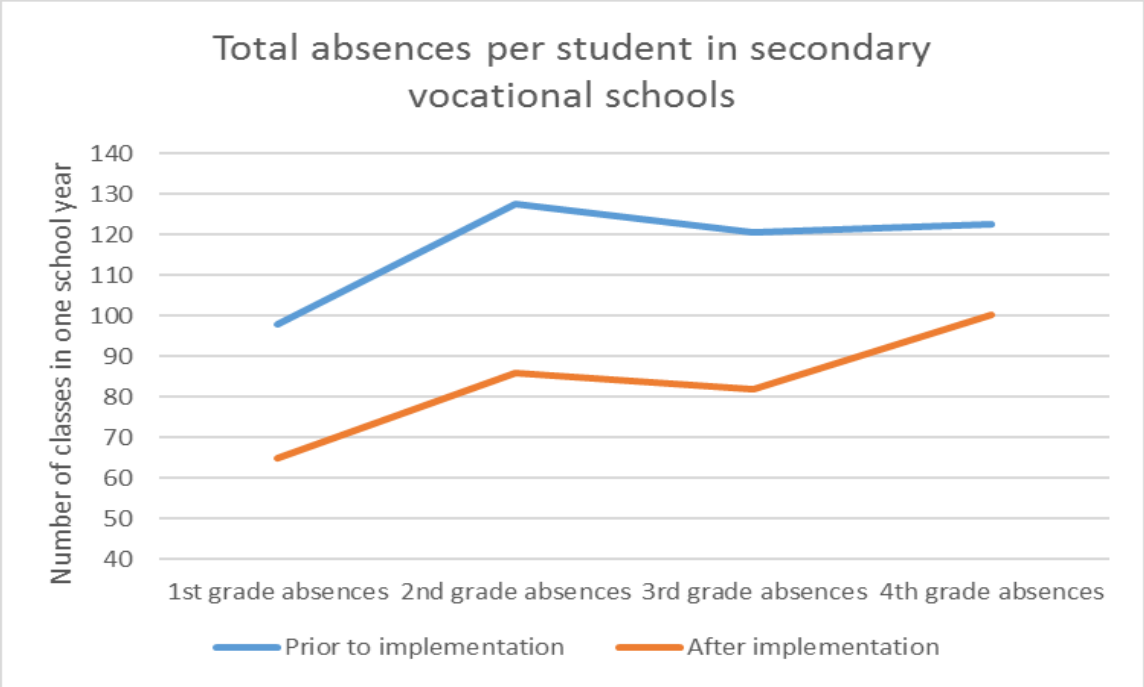


Chart 6. Total absences (excused and unexcused) per student in the school year prior to and after the implementation of the model in secondary vocational schools (2013/14 and 2015/16)

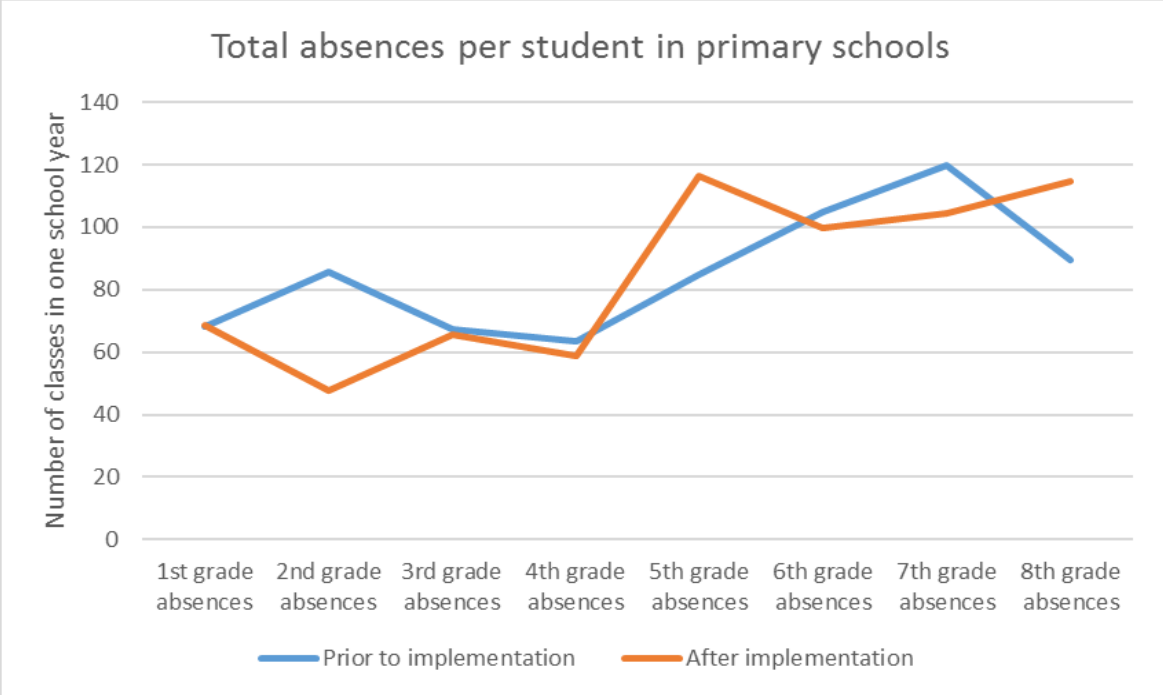


Chart 7. Total absences (excused and unexcused) per student in the school year prior to and after the implementation of the model in primary schools (2013/14 and 2015/16)

However, when looking at the data for primary schools, it can be seen that the number of excused absences per student increased after the implementation of the Dropout Prevention Model. A more detailed analysis shows that these results were due to the practice that absences of Roma students during their stay abroad with their families were excused. When the school where this practice is the most evident is omitted from the analysis, we get different results (Chart 8), but it should be remembered that, in other schools, a large number of families left the

country, according to reports of the DPT, school mentors and the project team. Nevertheless, there is a noticeable decrease in the rate of absenteeism per student before and after the completion of the implementation of the Dropout Prevention Model (from 77 absences per student to 68 absences per student - a reduction of 11.6%), although this reduction is less than expected, bearing in mind altered and unforeseen circumstances. When we compare the situation in a school with a much smaller number of students from families who may be asylum seekers, the reduction of the rate of absenteeism in the school is 31%, which is similar to the rate in vocational schools.

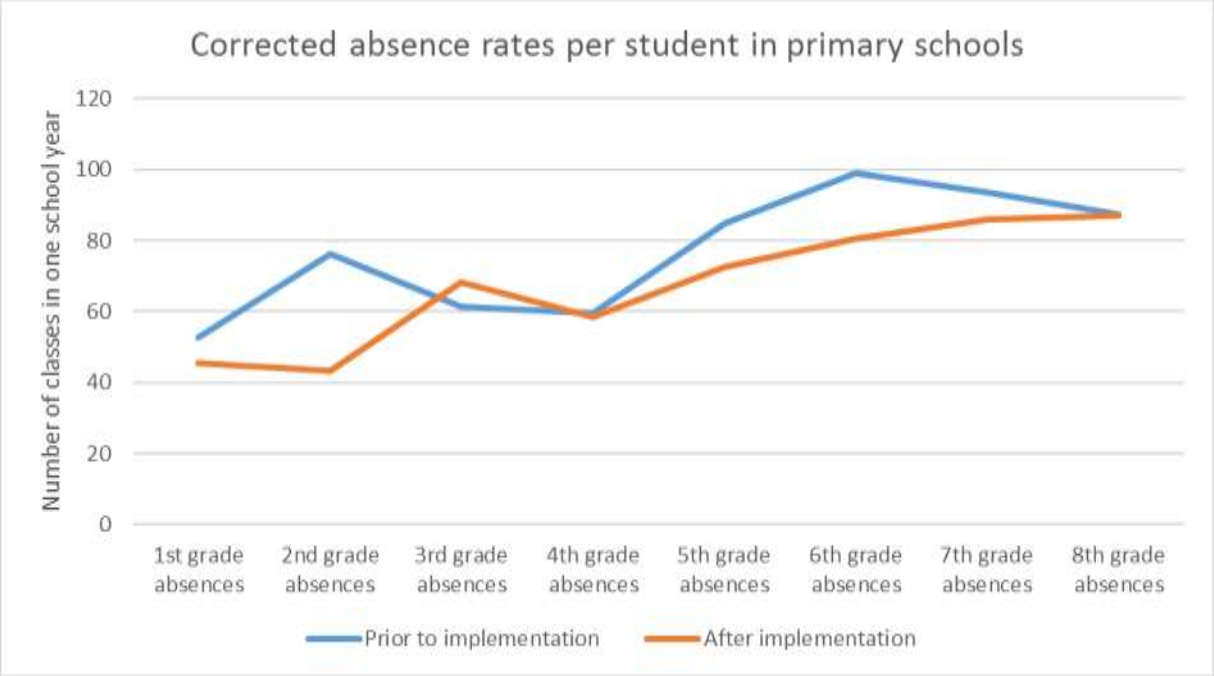


Chart 8. Corrected absence rates per student in primary schools

5.4. Repetition Rate

Practice of grade repetition negatively affects student achievement (Hattie, 2009), lowers the self-esteem of students and their sense of self-efficacy. The rate of grade repetition in all 10 schools before the start of the implementation of the project amounted to 2.1%. At the end of the project, the overall rate of grade repetition was 1.7%, representing a significant reduction. On average, before the start of the project, the grade was repeated by 162 students, while at the end of the project, the grade was repeated, in all 10 schools, by 125 students - a decrease of nearly 23%.

Chart 9. Grade repetition rate prior to and after the implementation of the project

Important data is that most schools reduced repetition rate in comparison to the repetition rate before the start of the implementation of the project, in a relatively regular trend. Repetition rate is increased in four schools, but in two schools this repetition rate may be more attributed to statistical error, i.e., to usual variability between generations, than to some system cause. In one vocational school the repetition rate is higher, but it is the result of the complete absence of repetition before the start of the project (in the last year of the project implementation, one student repeated the grade). In the other secondary vocational school repetition rate was increased for one student. In two schools it really came to an increase of dropout rate due to system factors. One secondary vocational school reports on a considerably higher repetition rate than before and they explain it as the result of inflexible attitude of a certain number of teachers who were not willing to provide additional support to students although they participated in the project, and resistance of some of the teachers; a reason was also in generation specificity that was present already at the start of the school year. One primary school drastically increased the repetition rate and this is the school which was the least successful in the implementation of the Dropout Prevention Model.

6. Analysis of Characteristics of At-Risk Students

6.1. Instrument for Risk Assessment, Factors of Risk and Index of Dropout Risk

As stated in the introduction, class teachers made an estimation for each student from their class on which of the five dropout risk levels the students are (within seven risk factors). The risk levels represent qualitative descriptions of various students at each of the risk factors based on research, school, and psychological-pedagogical practice of the professional services in schools in Serbia and based on national and international research. Level 1 represents the greatest intensity of dropout risk factors, while Level 5 represents the lowest intensity of risk factors. Based on the students belonging to a certain level, the index dropout risk was calculated for each student. The levels are designed so that they are more discriminating for students at higher risk of dropping out, or at the lower end of the scale (for a detailed description of levels see Appendix 4). These levels are weighted so that the weights are declining geometrically when calculating the effects of individual risk factors, where the student can belong to only one level of risk factors, so that at other levels of the same risk factors, he has a score 0:

*1*level_1 + 0.8*level_2 + 0.6level_3 + 0.1*level_4 + 0*level_5 = effect of risk factor.*

Then the effects of risk factors are differently weighted for primary and secondary vocational schools to obtain a dropout risk index for each student.

For primary school students the risk index was calculated as follows:

*RI= 0.3*Socioeconomic status of the student+0.2*Absenteeism+0.1*Academic achievement+0.1*Behavior+0.15*Use of social assistance+0.1*Acceptance in school+0.05*Other risk factors*

For secondary school students the risk index was calculated as follows:

*RI= 0.25*Socioeconomic status of the student+0.2*Absenteeism+0.1*Academic achievement+0.1*Behavior+0.1*Use of social assistance+0.1*Acceptance in school+0.15*Other risk factors*

The impact of socioeconomic status of students of vocational schools in the risk index has been somewhat reduced, because these students reached the secondary school in which the effects of other risk factors become stronger, and the critical influence of the very low socioeconomic status, which leads to decreased enrollment in secondary school, is over.

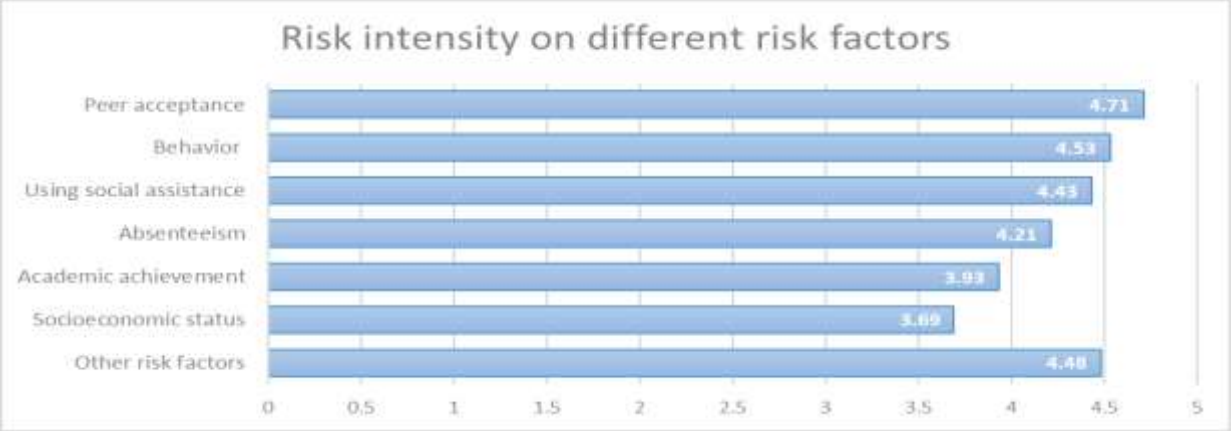


Chart 10. Risk intensity on all risk factors on the whole sample of students (N=5884)

Weighted this way, factors may create a risk index that ranges from 0 to 1 or from 0 to 100, where the index of 100 represents the maximum effect of risk factors on students. If the risk index is greater than 60, it means that the student is under very high risk of dropping out, while an index lower than 30 represents a student who is not at risk of dropping out.

Due to the mutual entanglement of risk factors and their mutual correlation, it often happens that along with the powerful effect of one risk factor acts also another risk factor that is not recognized. Therefore, the student, for whom the class teacher estimated a risk factor operates at the highest rate (level 1), is regarded as a student who has a risk index greater than 60, although this needs not be the case.

When we look at the intensity of risk factors on the overall sample of students (N = 5884), we see that it is the greatest (lower score indicates a greater effect of risk factors) for socioeconomic status (3.69) and the lowest for the (non) acceptance at school (4.71) (Chart 10).

6.1.1. Distribution of Risk Index on the Overall Sample

Distribution of characteristics of risk index for the entire sample of students shows that the distribution has shifted to the right (positive skewness), which was the goal when risk levels were created. Distribution is leptokurtic, or "tapering", indicating positive kurtosis. When we look at the distribution of risk index percentiles, we see that the value of the 90th percentile is 46, which means that only 10% of students have a risk index above this value. Predetermined risk index of 60 very precisely covers 5% of students (N = 309) who are at a very high risk of dropping out. Kolmogorov-Smirnov test of normal distribution (Z = 12.37; p <0.000) indicates that the distribution deviates from the normal distribution, which is the desired outcome of the created instrument to identify students at risk of dropping out.

Risk Index – distribution of characteristics		Percentile of risk index	Score of Risk Index
N	5884	40 percentile	6
Arithmetic mean	18.38	50 percentile	11
St. deviation	18.94	60 percentile	17
Skewness	1.42	70 percentile	24
St. error for skewness	0.032	80 percentile	32
Kurtosis	1.71	90 percentile	46
St. error for kurtosis	0.064	95 percentile	59

Table 6. Characteristics of risk index distribution

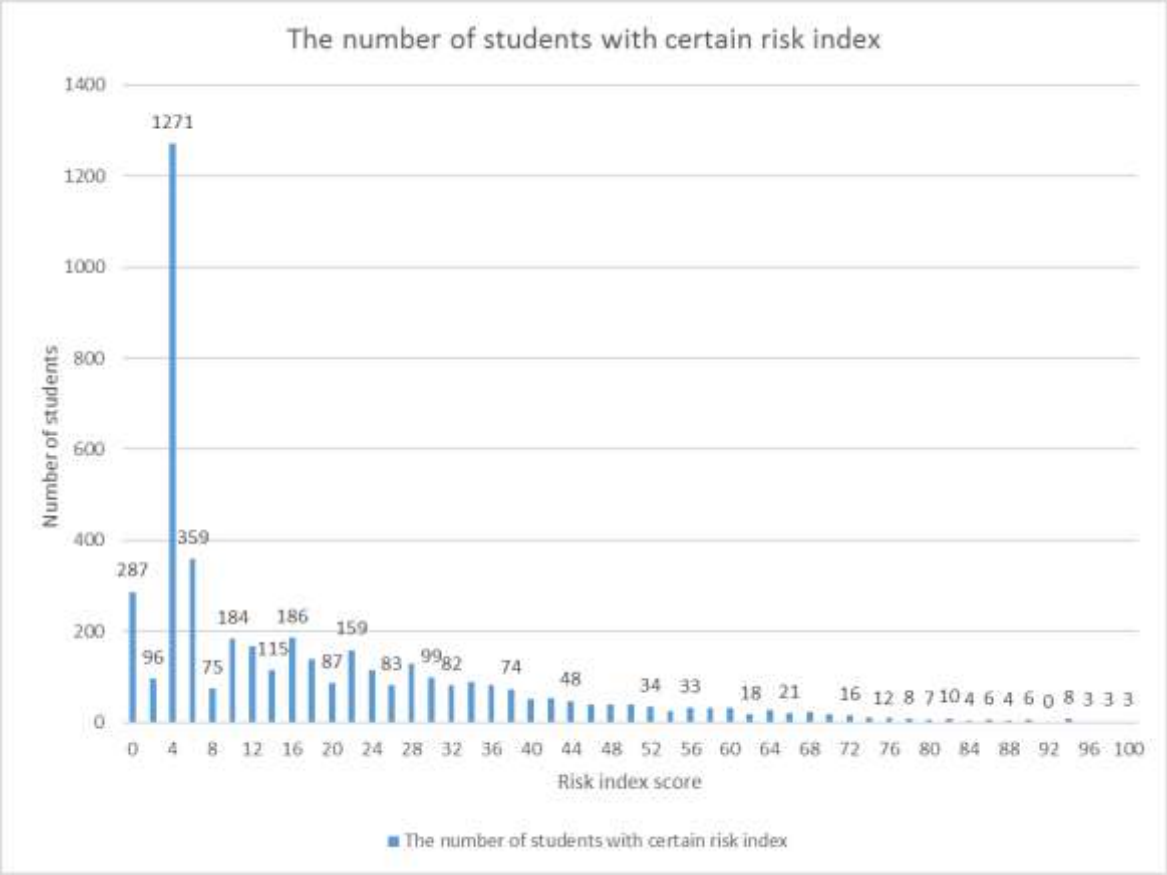


Chart 11. The frequency of risk index (the number of students who have a certain dropout risk score) (not shown numbers for each frequency)

When we take into account all the characteristics of the distribution, we see that the instrument for identification of students at dropout risk very clearly achieved its goal - to be very sensitive and very precisely identify students who are at dropout risk.

The instrument achieves very good discrimination in the right slice of normal distribution - where the risk of dropping out is the highest, and at the same time it is economical and easy to set up. It succeeds in distinguishing fine differences between different risk factors acting on at-risk students.

When we look at the distribution of probability, we can see that the distribution of the risk index is actually a slice on the right side of the normal distribution, which indicates that the goal was achieved – to create an instrument that is very sensitive to a very small number of students who are at the right end of the axis, or at high risk of dropping out, and that can determine which students need immediate support to prevent dropout.

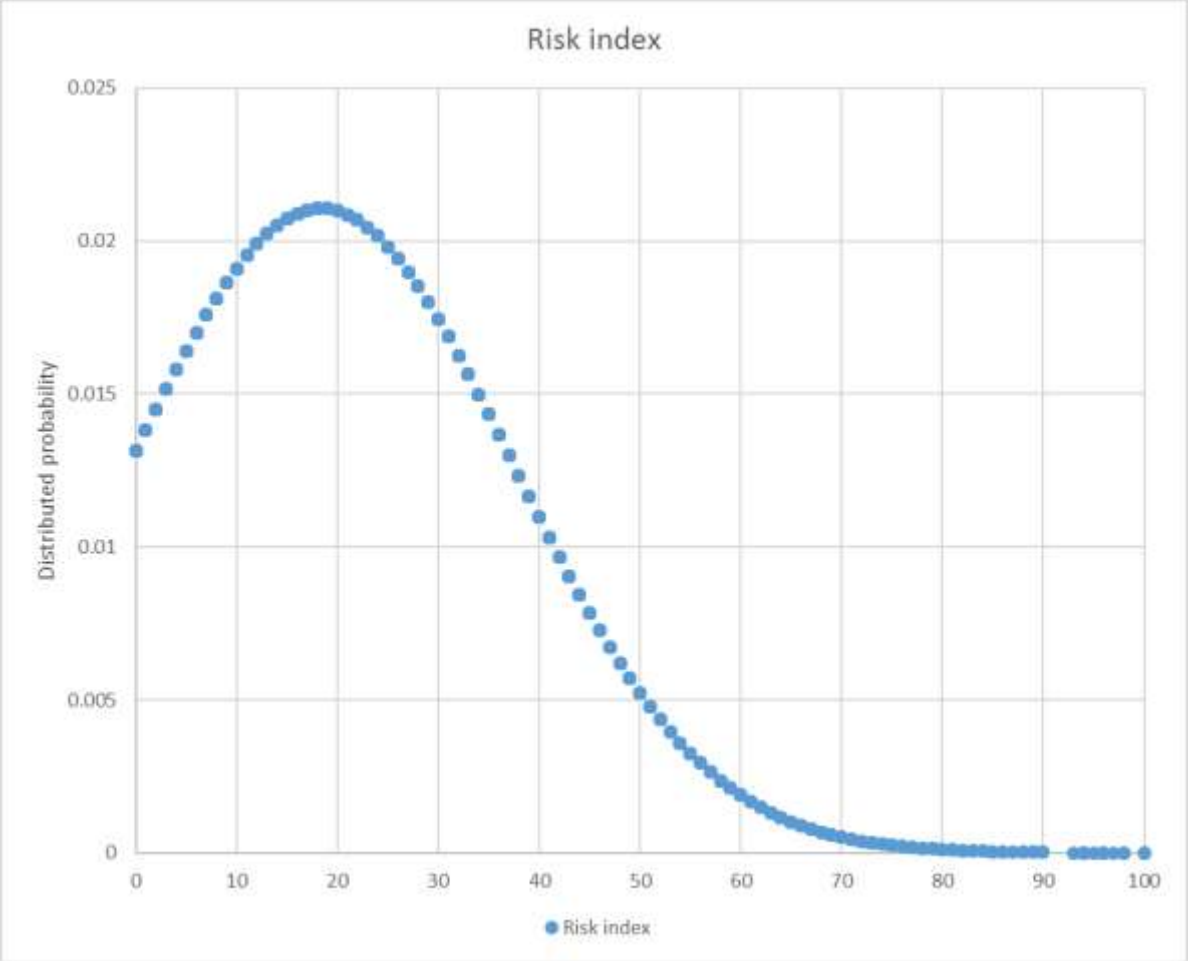


Chart 12. Distributed probability risk index

With the help of the created levels and the application (the instrument for identification), the students who most need additional support are identified. In addition, individualized support, which is often limited due to lack of resources, focuses on students who need it the most. Also, students can be successfully distinguished by which risk factors and in which intensity they affect them, in order to achieve greater support which would be adapted to their needs. Analysis of grouping at the end of this study will provide an answer indicating which bundles of risk factors act together and whether it is possible to make general guidelines for different types of individualized support that should be individualized even further in the application and use.

6.1.2. Analysis of Risk Factors and Risk Index by Gender

When comparing risk index by gender, it is somewhat higher for boys than for girls (19.61 versus 17.73); but this difference is very small, if we consider the size of the effect. Non-parametric tests for determining the differences on a trait between the two groups of respondents indicate that there are statistically significant differences (Kruskal-Wallis[15] $\chi 2$ = 18.31; $p < 0.001$) in the risk index. It can be said that boys and girls are at a similar risk of dropping out, but that boys have a minimally higher risk of dropping out.

[15] Non-parametric methods are used considering that the risk index variable deviates from the normal distribution.

If differences in individual risk factors are considered, girls have a higher academic achievement (Kruskal-Wallis χ^2=31.24; p<0.001), less problems in behavior (Kruskal-Wallis χ^2=82.38; p<0.001), less absenteeism (Kruskal-Wallis χ^2=8.995; p<0.001) and are more accepted by peers (have less problems with bullying) (Kruskal-Wallis χ^2=15.26; p<0.001), and there are no differences in the socioeconomic status and the use of social assistance, while when it comes to the effect of other risk factors (traumatic and negative experience, etc.) the difference is in favor of girls (Kruskal-Wallis χ^2=4.5; p<0.05). But if we consider the size of the effect, it is very small (η^2 is nowhere higher than 0.01 except for problems in behavior where it is η^2=0.02). This means that the effect of risk factor is minimally more intensive on boys, except in cases when other risk factors are in question to which girls are more exposed (this level includes also teen pregnancy). In case dropout risk is defined in a broader sense, i.e., when students at high dropout risk are those whose risk index is higher than 60 and/or those that have at least one "1" (level 1) on all the seven risk factors, the results indicate that there are differences by gender. When we observe only students who are at risk of dropping out, the results show that the higher proportion of students at high dropout risk are males (59%) (χ2 = 12.45; p <0.01; Cramer's V = 0.05). There are differences, but they are very small.

6.1.3. Differences Between Schools by Risk Factors and Risk Index

The differences in the functioning of the risk factors may be explained, to a small extent, by the influence of the school. That is, dropout risk factors in a similar intensity and scale act relatively similar in all pilot schools. However, there are differences between schools. All schools (both primary and secondary) are considered together because the risk factors acting on students may be present in both primary and secondary schools, but to varying degrees. This will be explained in more detail in the section that deals with the analysis of grouping.

When risk factors are considered in isolation, schools are statistically significantly different in all the dependent variables. The biggest differences between schools are in academic achievement (η2 = 0.09), socioeconomic status (η2 = 0.04) and absenteeism (η2 = 0.03), and the smallest for other risk factors (η2 = 0.01). All of these effects are small in size.

The primary school "Ljupče Španac" from Bela Palanka and PS "Jovan Jovanović Zmaj" from Surdulica stand out compared to other schools in the sample in the estimated socioeconomic status of students. These two schools have the lowest estimated socioeconomic status of all pilot schools (PS "Ljupče Španac" – 3.31; PS "Jovan Jovanović Zmaj" – 3.29; level 3 represents a student whose family lives at the poverty line). The Students from the Technical School „23. maj" from Pančevo have the highest average estimated socioeconomic status (4.0) (level 4 represents a student of an average socioeonomic status). PS "Jovan Jovanović Zmaj" is distinguished by a higher number of students who meet the conditions to be beneficiaries of social assistance, but they do not use this right for any reason (3.87) (level 3 – the student meets the conditions and is a user of social assistance; level 4 – the student used to be a user of social assistance, but there is no more need for being a user). As it was already pointed out, absenteeism is most prominent in secondary schools and in all secondary vocational schools absenteeism is about level 4 (an average student is absent from 5% to 10% of the total number of classes). Absenteeism, according to the estimation of class teachers, is somewhat lower in the Agricultural and Chemistry School "Dr Đorđe Radić" from Kraljevo (4.53).

Polytechnic School in Kragujevac is distinguished by lower achievement in comparison to other schools (3.38). This is evident when one looks at the average success at the end of the year compared to other schools in the sample.

Behavioral data indicate that, on average, students rarely exhibit behavioral problems. Only in primary school "Bratstvo jedinstvo" from Vrbas the average score by class teachers on this risk factor approached level 4, which indicates that a large number of students at some time showed, in a very short period of time, challenging behavior.

Observing (non)acceptance of a student by other students in the school, we can see that this factor is the one which has the least effect in all schools. It is most prominent in the PS "Jovan Jovanović Zmaj" from Surdulica (4.46). Other risk factors[16] are a group of factors that cover different negative experiences with a possible effect on interrupting education- from the most difficult ones, such as abuse and neglect, exile and experienced trauma, to teen pregnancy and grade repetition. Their effect is, as expected, poorly manifested in all schools. it was most prominent in the secondary school in Vrbas (4.37) and in the Technical School in Vladičin Han (4.37) (Level 4 - "Risk factors operating in a period of life of students, but not acting at the present time").

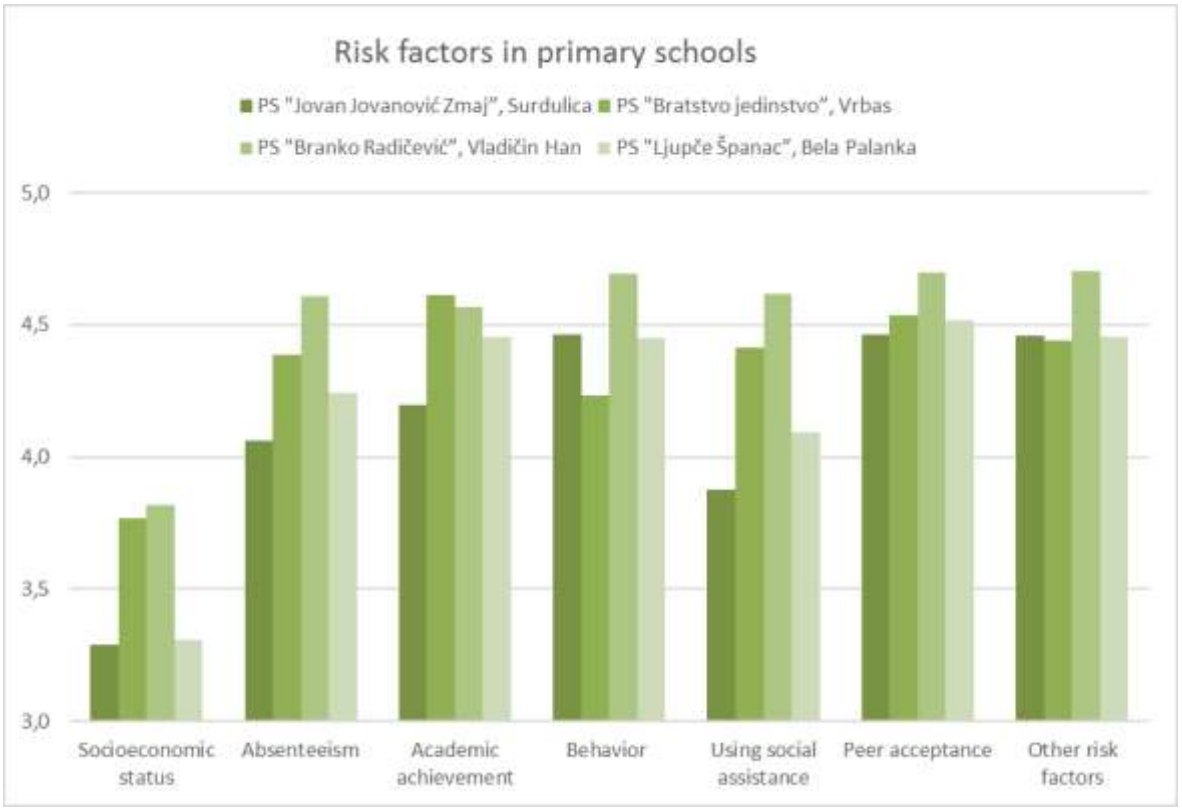


Chart 13a. Intensity of risk factors in primary schools (lower number indicates higher effect of the risk factor)

[16] The term "other risk factors" does not mean that these factors are less important or that their influence on the student was lower. On the contrary, this term was used as teachers just assume that these factors have an effect, they encroach on the privacy of students and very often it can happen that the teacher has certain information about the student, but it is not precise enough to be able to clearly communicate them.

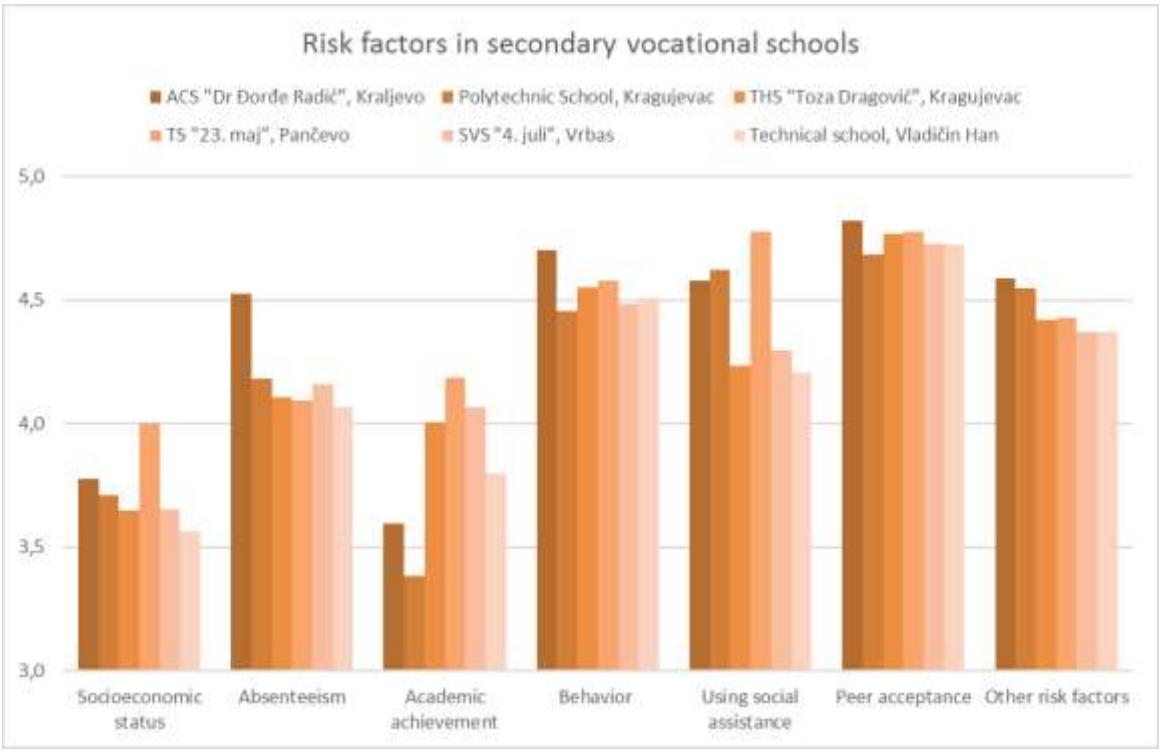


Chart 13b. Intensity of risk factors in secondary vocational schools (lower number indicates higher effect of the risk factor)

6.1.4. Comparison of Schools According to the Average Risk Index

As the risk index does not follow the normal distribution, for comparison of schools according to the risk index the Kruskal-Wallis test was used. This test indicates that, statistically, the schools considerably differ from each other based on the risk index (χ^2=175.8; df=9; p<0.00; η^2=0.03), but the intensity of the effect is low. This shows that there are differences between schools based on risk index, but the difference is small.

Very poor local environments, with a high number of students of Roma nationality and large number of users of social assistance cause that schools from these regions have the highest average dropout risk index - PS "Ljupče Španac" from Bela Palanka and the Technical School from Vladičin Han.

A better measure of dropout risk for the comparison of schools is the percentage of students at very high dropout risk. Using a somewhat more lax and broad measure for identification of at-risk students so that a student with a risk index higher or equivalent to 60 and/or with one 1 in any of the seven risk factors is considered a student at risk of dropping out, we get results showing that in the PS "Jovan Jovanović Zmaj" there are 42% of students at high dropout risk. Differences between schools according to the number of students identified in this way (χ^2_9 = 140.61, p<0.001; Cramer's V=0.16; φ=0.16; p<0.001) indicate that there is a low or medium effect of the school. This means that there are differences between schools based on the number of students at dropout risk.

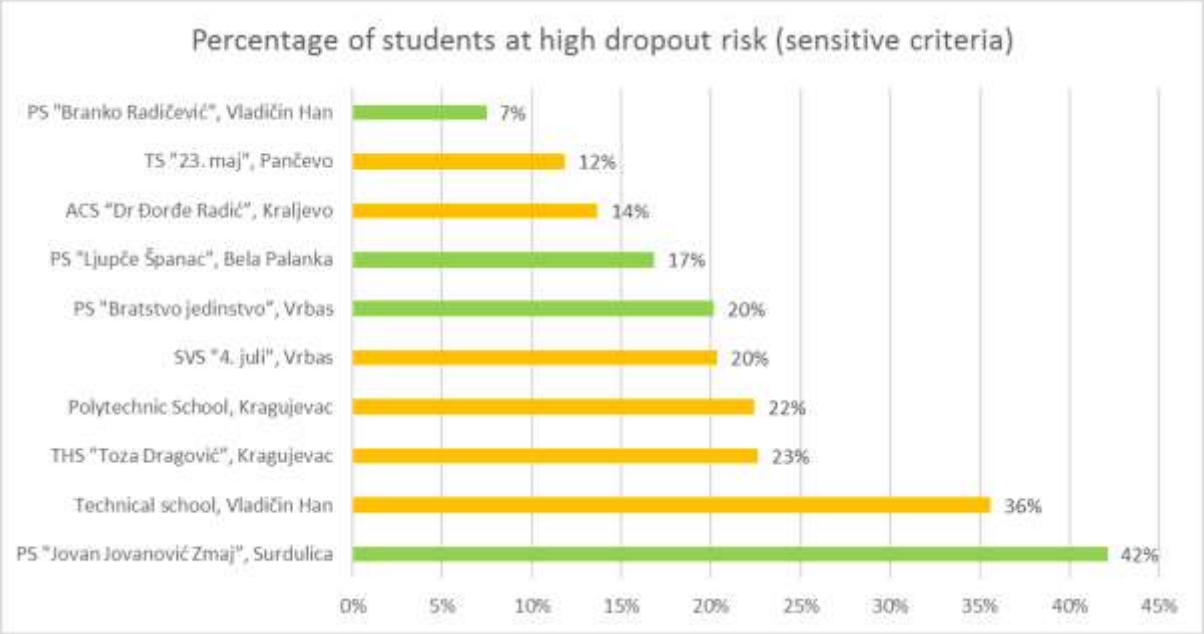


Chart 14. Percentage of students at high dropout risk per school (a student at high dropout risk is the student with a risk index higher or equivalent to 60, or that risk is lower, but the student has a level 1 of any risk factor, i.e., the highest intensity of impact of any of the individual risk factors)

We can see that most pilot schools have large percentages of students on whom individual risk factors act at the greatest intensity.

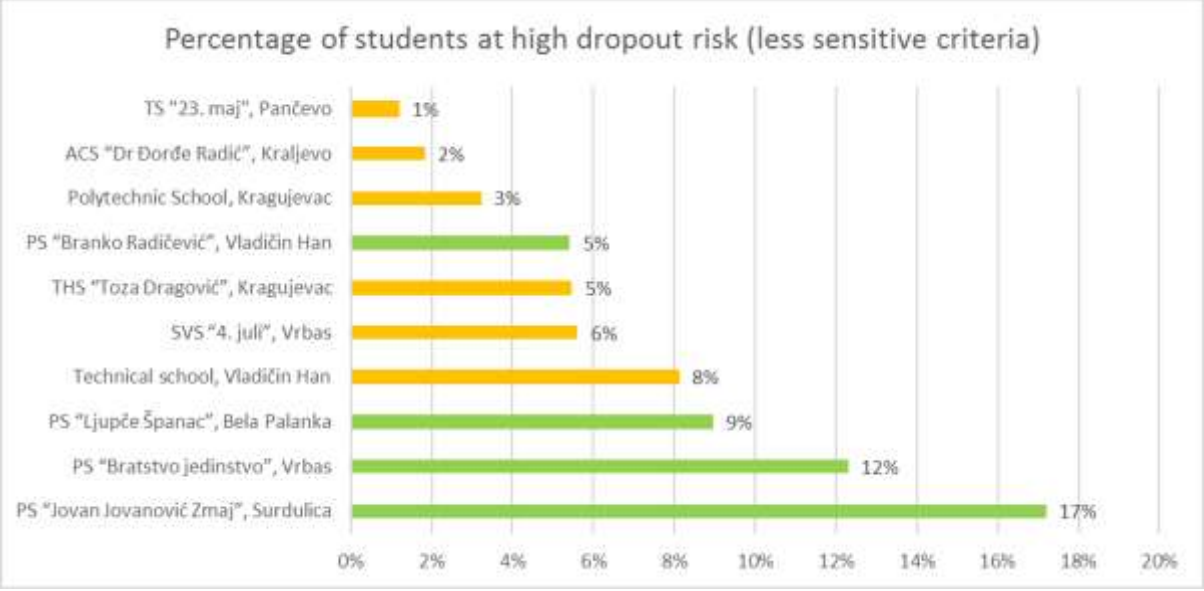


Chart 15. Percentage of students at high dropout risk per school (a student at high dropout risk is the student with risk index higher or equal to 60)

On the other hand, when we examine whether the pilot schools differ in proportion of students with high dropout risk - where a student at dropout risk is only the one whose risk index is higher than 60 not taking into consideration the effects of any of the seven risk factors of highest intensity (level 1) as in the previous case - we can see that there are considerable differences between schools (χ^2_9 = 146.5, p<0.001; Cramer's V=0.16; φ=0.16; p<0.001) as well as effects of low to medium intensity, which means that there are differences between schools according to the percentage of students at high dropout risk and that they must be taken into

consideration. The number of students at dropout risk actually indicates that the schools were selected in the right manner to be a sample in this project and that the selection procedure ensured that schools with high number of students at dropout risk would be pilot schools in the project.

PS "Jovan Jovanović Zmaj" from Surdulica has 17% of students with the risk index higher than 60, which is very worrying. Also, the percentage of 12% of students at high dropout risk in the PS "Bratstvo jedinstvo" from Vrbas is very high in relation to expectations. The smaller percentages of students under high dropout risk are in the Technical School "23. maj" from Pančevo (1%), in the Agricultural and Chemistry school "Dr Đorđe Radić" from Kraljevo (2%) and in the Polytechnic School from Kragujevac (3%).

7. Analysis of Grouping of Risk Factors that Influence Student Dropout

The cluster analysis[17] has the aim to, for a certain number of variables (in this case, these are the dropout risk factors), find groups of different combinations of effects and web of influences so that respondents from different groups could differ more in the combinations of risk factors that influence them, while within their own group they are as similar as possible based on the influence of the same risk factors. Simply put, cluster analysis allows us, on the basis of mathematical procedures, to find different "types" and "combinations" of the dropout risk factors affecting the students. On this basis, we are able to observe regularities in students' exposure to certain risk factors and make a typology of the effects of dropout risk factors. Such analysis might enable us, when designing support measures, to use as individualized approach as possible which is adjusted to the specific influence of risk factors and takes into consideration their combinations and ways of influence.

In order to get a more detailed and more precise picture of these various combinations of dropout risk factors, a cluster analysis was made with 988 students at high dropout risk – namely, those with a risk index higher or equivalent to 60 and/or those under the influence of at least one dropout risk factor of the highest intensity (having at least one "1" on one of the seven dropout risk factors). The cluster analysis with seven groups proved to be the easiest for interpretation[18]'.

Groups of dropout risk factors may be presented in a table as follows:

Ordinal number of the group of dropout risk factor	Dropout risk factors (isolated or in combination)
First group	Isolated influence of traumatic or negative experience
Second group	Influence of poverty in combination with irregular school attendance and low achievements
Third group	Influence of poverty in combination with behavioral problems and low acceptance by peers
Fourth group	Isolated influence of poverty
Fifth group	Influence of traumatic or negative experience in combination with irregular school attendance and low achievements

[17] Given the large number of respondents, we used the K-cluster analysis as a variant of grouping analysis (cluster analysis), which predetermines the number of categories on the new categorizing variables. K-cluster analysis defines a predetermined number of centroids, and then it categorizes each case, i.e., each respondent based on Euclidean distance until reaching the optimal solution, whereby centroids iteratively move in order to get a better solution (i.e., until it minimizes the variability within clusters rather than maximizes variability between clusters).

[18] Examining the number of clusters provides results that indicate that the number of clusters is functioning expressed through F ratio on multivariate analysis of variance ($F = 162$, $p < 0.001$, Wilks's $\lambda = 0.014$, partial $\eta 2 = 0.51$). Clusters very successfully differentiate students influenced by various factors of dropout risk, which is illustrated by the existence of a strong effect of group membership (explaining half of the variance in the variables of risk factors). This analysis is used only for examining the cluster and therefore F cannot be used for other purposes (because the conditions for the implementation of this analysis for the purpose of concluding are not fulfilled).

Sixth group	Joint influence of all risk factors (highest dropout risk)
Seventh group	Isolated influence of low achievements

Table 7. Groups of dropout risk factors

Interpretation of grouping various dropout risk factors.

The combination of risk factors, designated as the **seventh group**, affects the largest number of students (N = 253) at risk of dropping out. Within this group, the factor of low achievement stands out as stronger, while the other factors are of average intensity. The overall dropout risk index is the lowest for this group of risk factors. This combination of risk factors, dominated by isolated low achievement, may *indicate serious problems in learning, problems with motivation, the lack of developed learning strategies and/or low valuation of education*.

Dropout risk factors (5=the weakest influence; 1=the strongest influence)	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
Socioeconomic status	2.98	2.48	1.97	2.30	3.53	1.98	3.88
Absenteeism	4.13	1.30	3.32	4.43	2.19	1.37	3.43
Academic achievement	3.80	2.50	3.19	4.09	2.33	1.42	1.43
Behavior	4.56	4.39	2.70	4.72	2.28	1.83	4.04
Use of social assistance	3.79	3.15	2.33	1.21	4.50	2.05	4.72
Acceptance	4.31	4.34	3.02	4.76	3.88	2.36	4.73
Other risk factors	1.18	3.59	3.17	4.65	1.60	1.68	4.59
N (number of students in the group)	108	161	125	112	134	95	253

Table 8. Arithmetical means for each risk factor for each combination (group) of risk factors

The sixth group of factors includes such a combination of dropout risk factors in which all risk factors strongly exert their influence. This impact of risk factors affects the smallest number of at-risk students (N = 95). There is a strong impact of poverty, high absenteeism and low achievement. Behavioral problems are present that are likely leading to a low peer acceptance. Traumatic or other negative experiences are also present (low score on *other risk factors*). The overall dropout risk index is the highest for this group of risk factors (IR = 80). *All risk factors seem to be of very strong intensity.*

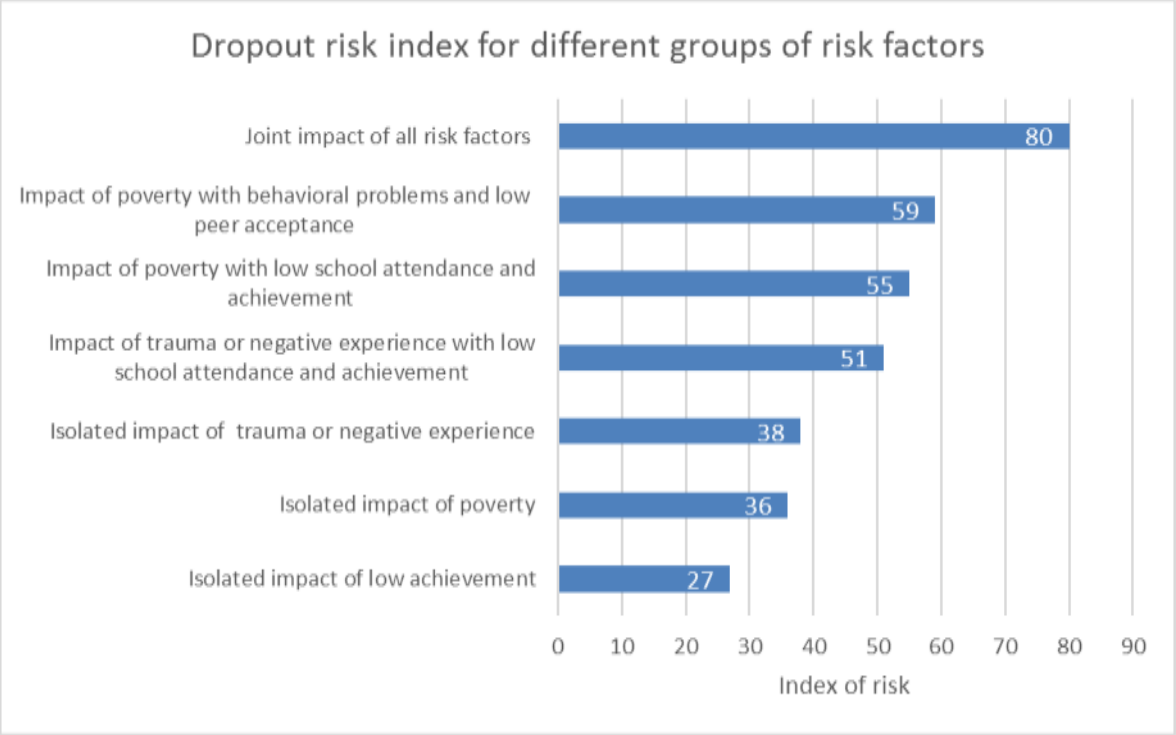


Chart 16. Dropout risk index for different groups of risk factors

The **fifth group** of factors is a combination of risk factors with the presence of traumatic effects or other negative experiences, which probably involve the activation of risk factors related to high absenteeism and low achievement. This combination of risk factors influences 134 students (N = 134). *For this group (combination) of risk factors, one can raise the question of whether it is possible that a negative experience/trauma could have an impact on the activation of the influence of other risk factors relating to achievement, behavior and absenteeism.*

The **fourth group** of factors is actually a stronger impact of poverty, while other risk factors are more or less at the average level. This combination of risk factors affects a significant number of students (N = 112). The isolated impact of poverty among this group (combination) of risk factors "does not join in" with irregular attendance, low achievement, non-acceptance in school, but it should be borne in mind that a salient risk factor in this group is is the one that relates to the non-use of social assistance, although there are conditions for it. *This group of risk factors can be described as an isolated impact of poverty.*

The **third group** of risk factors is (N = 125) a combination of poverty, behavioral problems and low acceptance in school, while the impact of low attendance and low achievement is lower. *In this combination of risk factors, poverty, along with behavioral problems and acceptance within the school, may in many cases lead to dropout although there is no significant impact of increased absenteeism and low achievement.*

The **second group** of risk factors is a combination of a very deep poverty, alarmingly higher absenteeism and low achievement (unsatisfactory grades in several subjects). This combination of risk factors influences 161 students. *For this group of risk factors a question arises whether deep poverty "triggers" also absenteeism and low achievement as risk factors.*

The **first group** of risk factors (N=108) a combination of risk factors in which the isolated presence of a negative or traumatic experience is present while the other risk factors are of

average intensity. *This group of risks have an experienced trauma or a negative experience as the most salient risk factors, without a joint action with other risk factors.*

7.1. Review of Group Analysis per School

Schools are divided according to which group (combination) of dropout risk factors is the most widespread in them.

PS "Jovan Jovanović Zmaj" from Surdulica has the most represented combination of risk factors from the third group of risk factors, but does not have the seventh group of risk factors which refers to very low achievements. Also, the fifth group of risk factors is less present (1%; n=1).

Dropout risk factors and their influence on students	1		2		3		4		5		6		7	
PS "Jovan Jovanović Zmaj", Surdulica	11%	11	22%	22	24%	24	22%	22	1%	1	18%	18	0%	0
PS "Bratstvo jedinstvo", Vrbas	12%	3	16%	4	28%	7	12%	3	12%	3	20%	5	0%	0
PS "Branko Radičević", Vladičin Han	9%	2	4%	1	26%	6	4%	1	4%	1	43%	10	8%	2
PS "Ljupče Španac", Bela Palanka	4%	2	30%	17	21%	12	12%	7	5%	3	27%	15	0%	0
ACS "Dr Đorđe Radić", Kraljevo	10%	9	2%	2	2%	2	1%	1	19%	17	7%	6	57%	50
Polytechnic School, Kragujevac	7%	16	10%	22	11%	24	4%	9	13%	29	3%	7	50%	108
THS "Toza Dragović", Kragujevac	19%	13	18%	24	16%	21	22%	30	10%	14	9%	12	15%	20
TS "23. maj", Pančevo	25%	22	6%	5	9%	8	5%	4	28%	25	2%	2	26%	23
SVS "4. juli", Vrbas	19%	20	17%	18	7%	8	16%	17	21%	22	6%	5	14%	15
Technical school, Vladičin Han	6%	10	29%	46	8%	13	11%	18	12%	19	10%	15	22%	35
Total	11%	108	16%	161	13%	125	11%	112	14%	134	10%	95	26%	253

Table 9. Percentage of students from each group of dropout risk factors in pilot schools (from the total number of students at high dropout risk)

PS “Bratstvo jedinstvo” from Vrbas does not have the group of factors that would indicate very low achievements (group 7), and in this school the most prevalent group is the third group of dropout risk factors (28%; n=7).

In the PS “Branko Radičević” from Vladičin Han, the sixth group of factors is most prevalent (43.5%, n=10) as well as the third group of factors (26.1%, n=6). The dropout risk factors affect a large number of students of this school.

In the PS ”Ljupče Španac” from Bela Palanka, the most widespread are the second group of dropout risk factors (30.4%, n=17), the third group (21.4%, n=12) and the sixth group of risk factors (26.8%, n=15).

ACS “Dr Đorđe Radić” from Kraljevo has as the seventh group of dropout risk factors (57, 5%, n=50) as well as the fifth group of factors (19.5%, n=17) as most prevalent.

In the Polytechnic School from Kragujevac, the most widespread groups are the seventh group of dropout risk factors (50.2%, n=108), the fifth (13.5%, n=29) and the third group of risk factors (11.2%, n=24).

In THS “Toza Dragović” from Kragujevac, the most widespread groups are the fourth = (22.4%, n=30) and the second group (17.9%, n=24) of factors.

In TS “23. maj” from Pančevo, the most widespread groups are the fifth group of factors (28.1%, n=25), and the first group of dropout risk factors (24.7%, n=22).

The situation is similar in SVS “4. juli” from Vrbas – the fifth group (21%, n=22) and the first group of factors (19%, n=20) are most widespread.

In the Technical School from Vladičin Han the most widespread are the second group of factors (29.5%, n=46) and the seventh group of factors (22.4%, n=35), but also all other groups of dropout risk factors are present.

For each group of risk factors, tentative recommendations can be formulated in which direction IPDP should evolve so that the combined effect of factors could be more improved. These recommendations should be further developed and improved, but some of the examples of recommendations (used during the project) can be found in Appendix 8.

7.2. Analyses of the Existence of “Segregation” of At-Risk Students by Classes

Analysis of the existence of grouping students with a high dropout risk by classes actually compares whether the classes within a school drastically differ in the dropout risk indices. If the effect of a class on the risk index is large, it does not necessarily mean that, within school, at-risk students intentionally "segregate" in separate classes; but it is possible that there is a systemic factor that causes that the students who are at greater risk are grouped into different classes. For example, it is possible that certain educational profile in vocational schools is enrolled by students of lower socioeconomic status. However, this means that one needs to consider the existence of deeper social factors that influence that students at high dropout risk enter specific profiles which are probably linked to staying "in a cycle of poverty."

Great influence of classes on the risk index in primary schools may indicate that some sort of grouping of at-risk students in classes does exist. Grouping at-risk students in the same class increases their risk of dropping out. Schools and classes with a large number of students with low achievements or classes in which there is some kind of segregation of students by various

criteria, slow the progression of students and have a negative impact on all educational outcomes (Hanushek, Kain and Rivkin, 2009). In the context of the project, it is important to have information in Baseline Study on whether at the beginning of the project implementation these factors work that may reduce the effectiveness of the implementation of the Dropout Prevention Model in pilot schools.

Secondary vocational schools are listed in the order from schools with a high impact of the class on the risk index to those without this influence.

Polytechnic School, Kragujevac. The size of effect (Kruskal-Wallis $\chi 2 = 432$, $p < 0.001$; $\eta 2 = 0.37$) of classes on risk index indicates that students in different classes greatly differ according to the risk index. In this school there are very powerful influences based on which at-risk students are grouped together. Three-year profiles such as a driver of a motor vehicle, road transport technician and machining operator are enrolled by students who are at greater risk of dropping out (classes III_{17} and III_{9}).

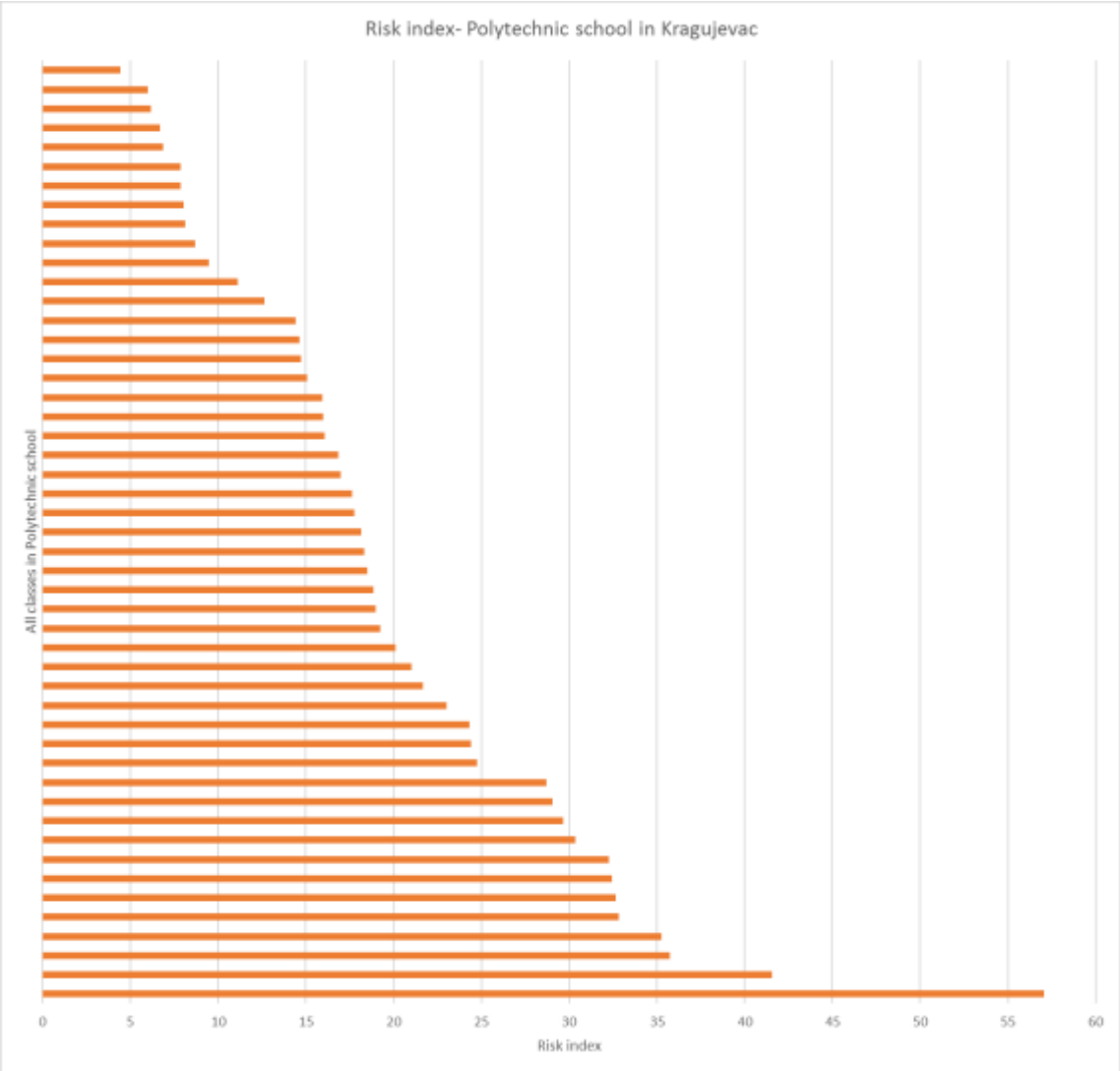


Chart 17. Risk index per classes in the Polytechnic School

Technical School, Vladičin Han. The size of the effect (Kruskal-Wallis $\chi 2 = 199$, $p < 0.001$; $\eta 2 = 0.33$) of classes on risk index indicates that students in different classes greatly differ according to the risk index. In this school there are very powerful influences which group at-risk students

together. Classes with the highest risk of dropping out are the classes of three-year profiles (II_2- car electrician and I_2- car mechanic), and the four-year profile class II_1 (robotics technician), with a lot of Roma students from poor backgrounds.

THS "**Toza Dragović", Kragujevac.** The size of the effect (Kruskal-Wallis χ^2=208; p<0.001; η^2=0.29) of classes on risk index indicates that students in different classes greatly differ according to the risk index. In this school there are very powerful influences which group at-risk students together. Classes with the highest risk of dropping out are the classes for the education profiles Hospitality technician and Cook, as they are enrolled by students with lower achievement in primary schools.

SVS "4. juli", Vrbas. The size of the effect (Kruskal-Wallis χ^2=228; p<0.001; η^2=0.37) of classes on risk index indicates that students in different classes greatly differ according to the risk index. In this school there are very powerful influences which group at-risk students together. Classes with the highest risk of dropping out are the classes of three-year profiles (food technician, driver). These effects are somewhat lower than in the previous two schools.

ACS "Dr Đorđe Radić", Kraljevo. The size of the effect (Kruskal-Wallis $\chi2$ = 142, p <0.001; $\eta2$ = 0.20) of classes on risk index indicates that students in different classes differ according to the risk index, that in this school there are moderate impacts that group at-risk students together. These impacts are lower than in previous schools. The class with the highest risk of dropping out (II_7) is a combined class of three-year profiles (butcher, baker, florist) while the next class at risk is the class for horticulture technicians (II_3), which is a four-year profile enrolling students with the lowest achievement from primary school.

TS "23. maj", Pančevo. In this school the size of the effects of the class on the risk index is moderate (Kruskal-Wallis $\chi2$ = 142, p <0.001; $\eta2$ = 0.20). In this school there are moderate impacts that group at-risk students group together. School practice and influences that act should be carefully considered. These impacts are lower than in previous schools.

7.3. Analysis of Grouping in Primary Schools

For primary schools only the upper grades were compared because only there did the class teachers fill out the instrument for identification for all students, while in the lower grades the instrument was filled out only for those students for whom class teachers assumed are at high risk of dropping out.

The analysis shows that classes have no effect on the risk index in any of the primary pilot schools, and that all classes have a similar average dropout risk index. There is no difference in the number of students at high risk in the lower grades in any of the primary schools.

7.4. Conclusion on the Analysis of Grouping of At-Risk Students by Classes

Classes in secondary vocational schools differ in the risk index, but these differences are not the result of "segregation" or other similar factors, but of the fact that three-year profiles are enrolled by students at a greater risk of dropping out. Effects of class affiliation are greater in larger schools and in schools with more educational profiles (three- and four-year profiles) as in the Polytechnic School in Kragujevac or in schools where there are profiles that are known to be enrolled by less successful students (e.g., traffic technician in the Technical School in Vladičin Han). This also applies to other vocational schools with three-year profiles that are enrolled by students with a lower number of enrollment credits.

In primary schools, there are no effects of classes on risk index, i.e., classes do not differ from one another in the risk index to a sufficient extent to conclude that there is some sort of systematic grouping of at-risk students in separate classes. The limitation of this conclusion is the fact that the analysis was performed only in upper grades of primary schools because of the way the instrument for identification was completed in the lower grades.

8. Analysis of the Implementation of the Individual Plans for Dropout Prevention (IPDP)

A total of 994 at-risk students were identified according to the less sensitive criterion, which makes 14% of the total school population (7138 students in 10 schools). According to sensitive criterion, which identifies students at very high risk of dropping out, there were 291 students identified, which make 4% of the total student population in the pilot schools. A total of 359 Individual plans of dropout prevention (IPDP) were developed for students at high risk, which covered all the students (291) under very high risk of dropping out at the very beginning of the project. For some students the need to implement IPDP ceased, but then it began to be implemented for other students. A total of 450 IPDPs was designed for students during the two-year duration of the project. These plans were revised every three months. The analysis includes data from plans after the first and second revision.

Objective of the analysis of IPDPs. The aim of this analysis is to provide, on the basis of quantitative indicators, an interpretation of why the IPDPs proved to be effective. Of the 450 students for whom IPDP was developed, only 25 dropped out, accounting for 5.5% of the students for whom IPDP was developed. Bearing in mind that these are students under very high risk of dropping out and that, in most cases all or almost all of the dropout risk factors operate on them (and often the intensive effect of at least one factor is enough to lead to dropout), these results suggest that the school can have a preventive effect even on the factors that are commonly thought beyond the scope of the school's influence - striking poverty, early pregnancy and marriage, serious problems in the family and serious behavioral problems - and this is very encouraging data.

To make it possible to offer a valid interpretation of the effectiveness of IPDPs, it was necessary to somehow "transform" the qualitative data relating to the planned measures and activities into quantitative. It should be borne in mind that this categorization is done by psychologists and education specialists (CEP team and students of master studies in psychology) and that each psychologist was thoroughly familiar with every IPDP.

Within these plans, the situation and mode of action of risk factors are described in detail, and thus, in addition to quantitative indicators on the basis of the Instrument for the identification of at-risk students which is completed by class teachers for each student, narrative data on each child is obtained. Individual stories and narratives, contexts in which students learn and develop, are very different from student to student, and often additional data was acquired through the IPDPs. These stories are in most cases very distressing, and if they should be expressed in one sentence, they talk about how poverty destroys not only the conditions for learning, but also normal relations within the family.

Due to the volume of IPDPs, it is very difficult to carry out a qualitative analysis, because their quality can vary greatly, but without detailed knowledge of the particular student it is not possible to assess the quality of an IPDP. Also, the formal aspects of IPDP do not guarantee the quality of the activities carried out with students, and vice versa. The most important information pointing to the effectiveness of these measures is a very low dropout rate of these students, bearing in mind the very difficult conditions in which they live and in which they develop. However, it is possible, on the basis of all available data within IPDP, to conduct several analyses that indicate whether and how support measures differ depending on the characteristics of students.

Categorization of IPDP data into quantitative data. The first type of categorization of measures from IPDP relates to the determination of the type of support that IPDP contains in order to describe which type of support is represented in every IPDP. Each of the measures specified by the teachers in IPDP as a preventive measure of dropout, was evaluated and qualified by the expert team as a) support measure for learning within a regular lesson, b) support measure outside the regular lesson, c) social support measure (work on increasing the well-being and acceptance of students, for example, the inclusion of students in extracurricular activities) or d) material support. Then the number of measures in each of these categories was counted. In rare situations, when a certain measure of support was believed to apply to more than one category, it is listed as part of these categories.

The second type of categorization relates to the identification of sources of support. For each IPDP it was examined whether it contained the support provided by teachers, professional support services, peer support, support of parents and the support of an external institution - regardless of the amount of support.

The last item in the analysis of IPDP was the measure of quality of IPDP created based on the opinions of the expert team. This score is the average of the marks from 1 to 10 on the basis of three criteria: a) compliance with the specifics of students in line with the available data within the IPDP, b) the degree of concretization of the proposed measures and c) the feasibility of the measures. This information is not intended to give final judgment on the quality of IPDP, but to be indicative support for the measures for further improvement of IPDPs and their implementation in the education system.

Further information for students with an IPDP. Schools were advised that, for each student for whom an IPDP was developed, the professional associate should apply instruments that are related to sense of well-being of students, students' assessment of how high are the teachers' expectations, and their attitudes towards school and learning. These instruments are not aimed so much to be a means by which IPDP will be evaluated, although they may in this respect be of significant help, but were intended to be a tool that will start the communication between at-risk students and schools on how the student feels at school and what kind of relationship he has with individual teachers.

The sense of well-being and sense of acceptance represent students' feeling in the school concerning the accepting and supportive climate that the school encourages. This is one of the important aspects that enables and provides the perfect environment for learning. A school that promotes the well-being of students supports the growth and development of students and is one of the important elements of monitoring the implementation of inclusive education in Serbia. The instrument is a shortened and adapted version of the instrument for measuring student well-being from the Framework for Monitoring of Inclusive Education (Kovacs Cerovic, Jokic and Jovanović, 2014; Pavlovic Babic, Jovanovic and Jovanović, 2014).

High expectations of teachers from all students measure the perception of students whether teachers believe that they can make progress with their help if they put in effort, whether teachers provide them with sufficient incentives for progress, and whether teachers succeed in sufficiently motivating them to learn and attend school. And this instrument is also a shortened and adapted version of the instrument for measuring high expectations from the Framework for Monitoring of Inclusive Education in Serbia.[19]

[19] http://socijalnoukljucivanje.gov.rs/wp-content/uploads/2014/10/Okvir-za-pracenje-inkluzivnog-obrazovanja-u-Srbiji.pdf

The instrument SAAS-R (School Attitude Assessment Survey - Revisited) consists of 35 items that showed good psychometric properties in the Serbian sample for the whole scale (α = 0.88) and for the individual scales (McCoach and Siegle, 2003; Jovanović, 2011). The instrument, among other things, measures academic self-perception, motivation and self-regulation and assessment of objectives in the school context. Academic self-perception refers to the attitudes that a student has on his own intellectual abilities (e.g. "I'm learning new things in school quickly."). It is a part of the general beliefs about self-worth, but it relates to the perceived academic skills, confidence in personal competence in the school context. Motivation and self-regulation represent a dimension that indicates to what extent the students are motivated to invest a systematic, dedicated and concerted effort in schoolwork. This dimension can be described as the tendency to use metacognitive strategies, self-management and self-regulated learning ("I use different strategies when learning a new material." "A lot of effort is put into my school work."). The assessment of objectives is the dimension which measures the perceived importance of good grades and success in school for students and assesses the extent to which good grades are an important goal for the students and for their future ("It is very important to have good grades.", "Success in school is important for my future career goals.").

Results. There is a slight negative correlation between the sense of well-being of students and the dropout risk index ($r = -0.206$; $p < 0.01$). These data refer to the data before the revision of IPDPs, or to the state before the implementation of preventive measures. This data mainly indicate that before the start of the implementation of the measures, schools were not actively working on the students' sense of acceptance and support. In the period before the start of the project, most vulnerable students felt worst in the school. This is especially important because it should be remembered that this negative correlation would be much higher if data were collected for all students (i.e. restriction of rank).

There is a moderate to strong correlation between the risk of dropping out and the number of support measures within the IPDP ($r = 0.423$; $p < 0.01$). Still, this data is encouraging and it indicates that when the schools learned more about the student, , they made efforts to increase the amount of support to those students who needed it the most, which was also reported by teachers in the focus groups.

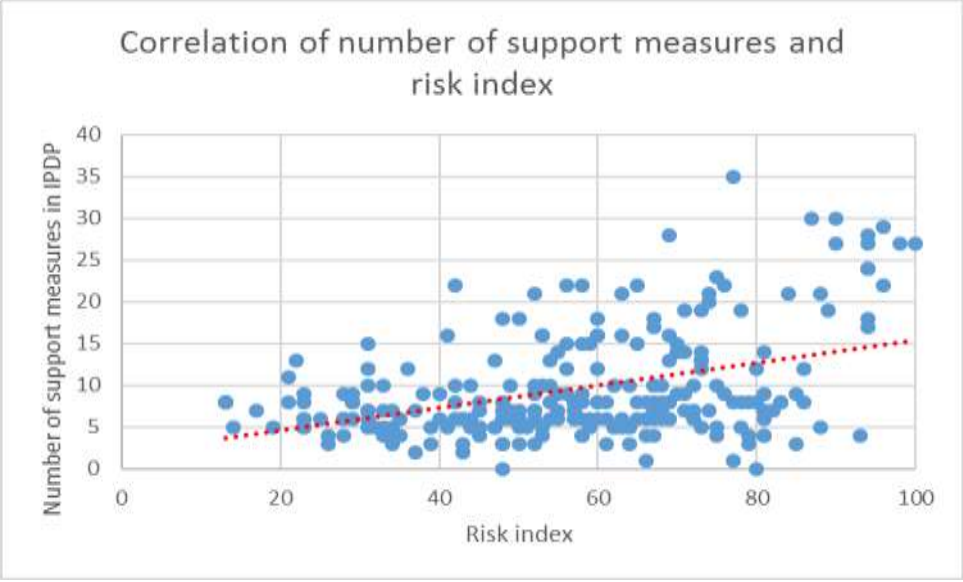


Chart 18. Correlation between support measures in IPDP and student dropout risk

The next analysis speaks in favor of schools adapting the type of support depending on the existing combination of risk factors. All differences are statistically significant ($p < 0.01$). The largest number of measures of different kinds of support for students is present in the sixth group, where all risk factors have an intense influence.

Material support is greater for group 3 in which the low socioeconomic status is associated with non-acceptance and behavioral problems. Remedial teaching is also the most common in this group, probably because through additional classes teachers try to solve these problems with behavior and acceptance.

Support in learning during regular classes is very well connected with the needs - where the risk of school leaving is the highest (group 6), and where the student's confidence and attitude towards school must be urgently strengthened and where the failure in school is the highest risk factor for dropout (group 7). Social support is the greatest where it is needed the most (group 6) and somewhat high where there is an isolated impact of poverty (group 4). Although material support does not solve all the problems, it is important to provide the basic conditions for the child in the form of material support so that the learning process could take place undisturbed.

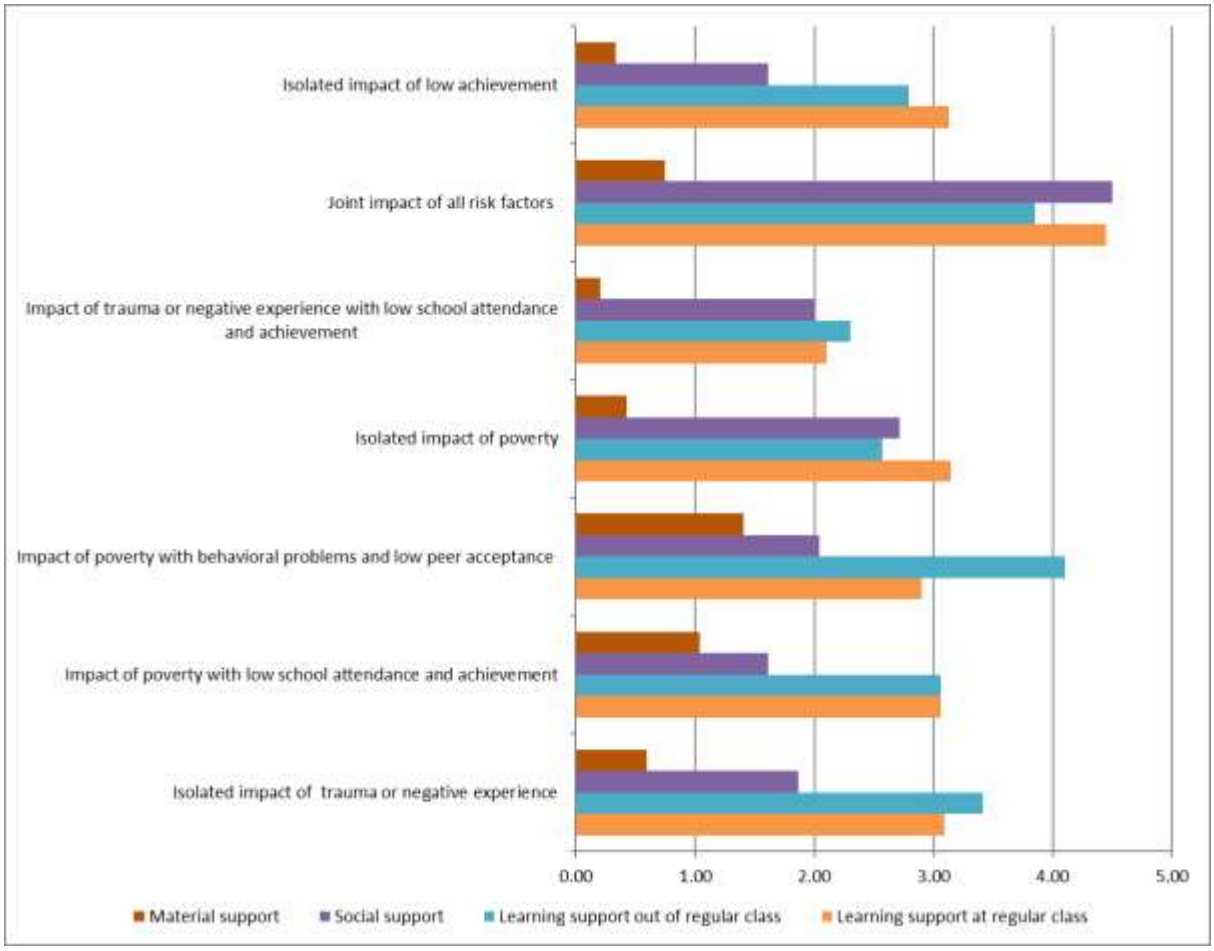


Chart 19. Types of support depending on the combination of risk factors

Regardless of the group (combination) of risks affecting the students, sources of support (teachers, parents, students, other institutions) in the implementation of measures of IPDP, remain the same, which may indicate that school resources are in fact exhausted with three to four sources of support (support from teachers, parents, students and other institutions) (Chart

19). Source of support is greater for the fourth group in which there is an isolated risk of poverty. As noted above, the number of support measures is the highest for the most vulnerable students (group 6) (Chart 20).

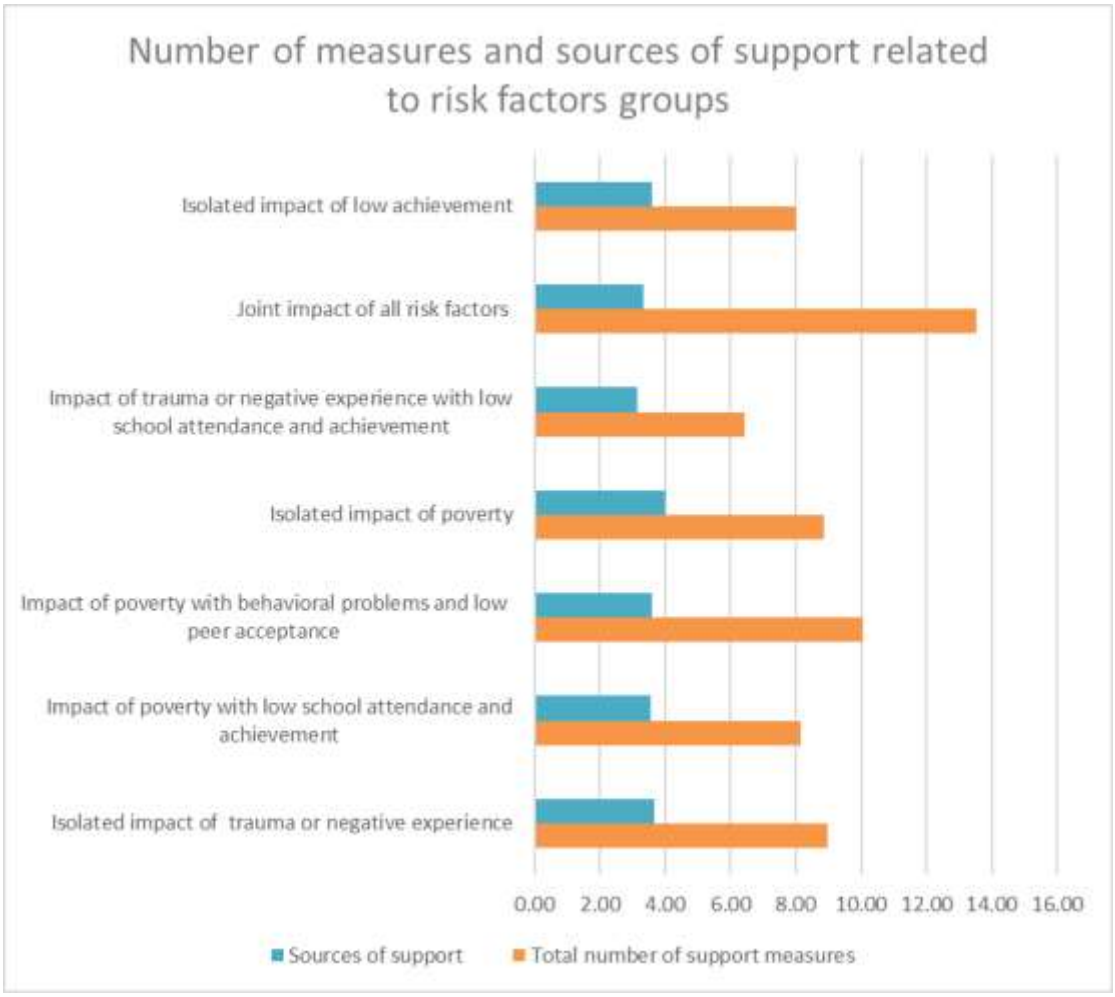


Chart 20. Number of measures and sources of support for different combinations of risk factors

On average, one IPDP contains slightly more than 9 different support measures (M = 9.21), which at first glance may seem insufficient, but if such measures are properly directed towards the students' needs for additional support, they can be effective. However, IPDPs are very much different in the number of measures (high standard deviation, as a measure of the degree of differentiation of IPDPs, marked by a red line on the chart 21). This means that the number of support measures varies between 3 to 15 per IPDP for two-thirds of students.

The most common measures in IPDPs refer to support in learning outside of regular class, which, among other things, includes a planned attendance of remedial classes, peer support in learning at home or in school, additional support of teachers in preparing students for a specific subject, creating study plans and strengthening the motivational aspects of work in the school in relation to individual subjects.

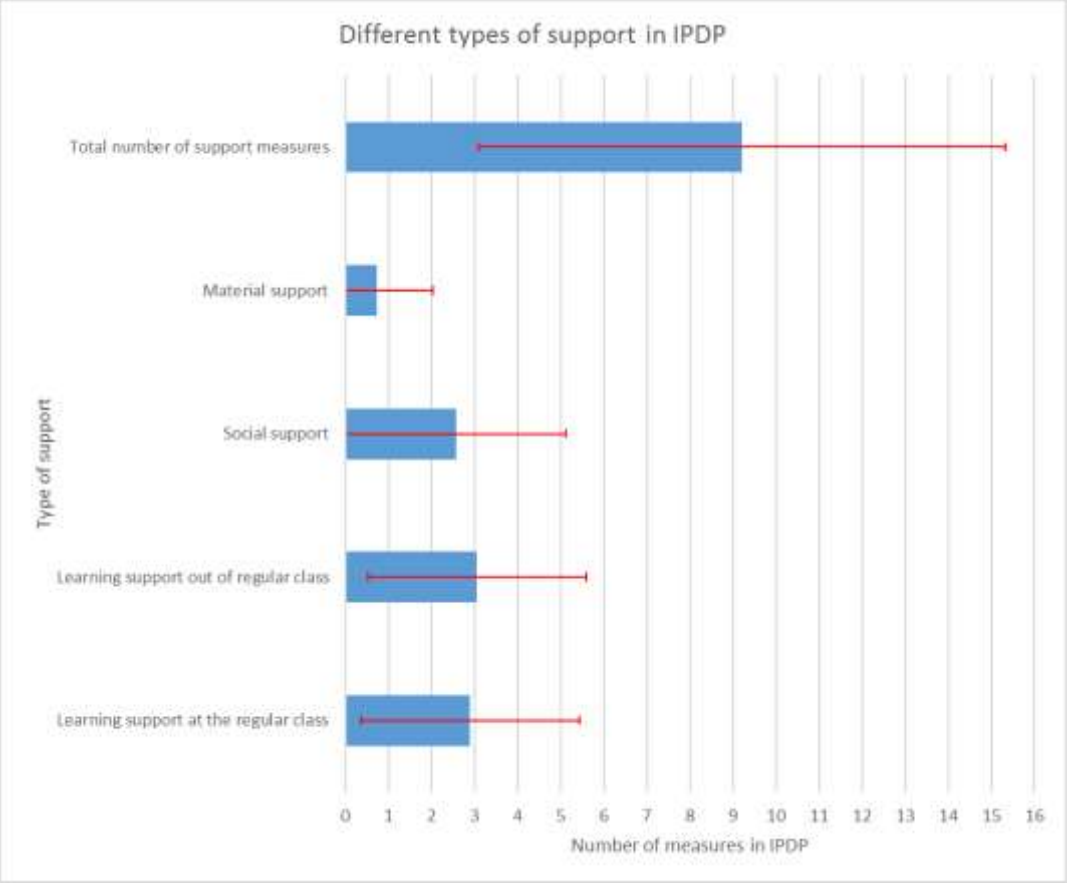


Chart 21. Characteristics of IPDPs for all students

The support in the field of learning in regular classes, which consists of the individualization of teaching, tailored assessment and examination of students, providing a lot of socioemotional support by teachers, is also present. Material support is the least present because of the reduced capacity of schools in this aspect, but it still exists, which means that, on average, the school managed to materially assist the student in meeting basic needs (clothing, footwear, free meals, school supplies and textbooks). Higher standard deviation within the framework of social support suggests that some schools did not do much to increase the senses of acceptance and well-being of students through planned activities. Further analysis should show whether this is the case in secondary vocational schools where there are more students with low achievements as a dominant risk factor.

The information that is worrying and that is certainly an aggravating factor in the implementation of IPDPs is the fact that in the course of education, 26% of students for whom IPDPs were developed already repeated a grade. The results of large meta-analytical studies in education show that grade repetition has a negative effect on student achievement (Hattie, 2009).

As for the sources of support that implement different support measures in IPDPs (Chart 22), teachers and school support personnel are the most common source of support for students under very high risk of dropping out. Teachers have been a source of support in 94.3% IPDPs, professional associates in 86% of IPDPs. Peer support was also well represented, while parents and other institutions (e.g., local NGOs or the Centre for Social Work) were less common than might be expected. On average, each IPDP encompasses 3.5 different sources of support.

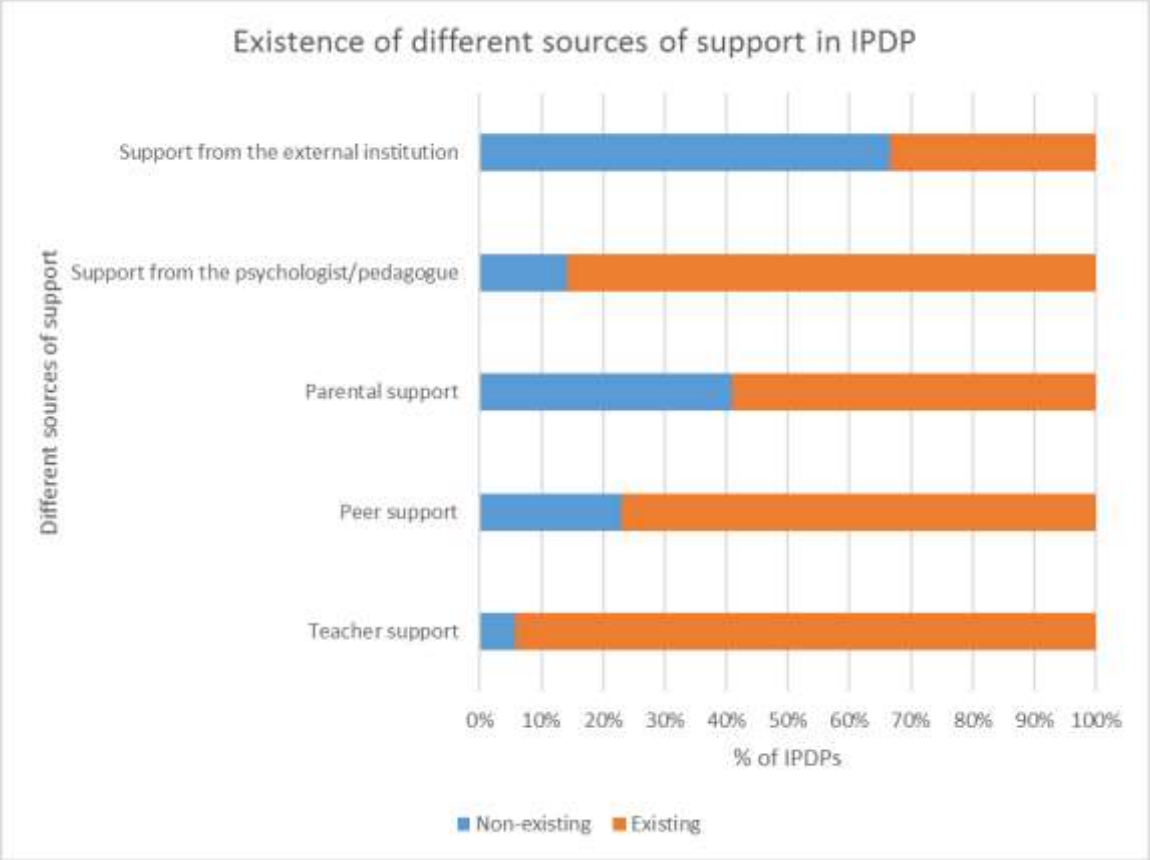


Chart 22. Sources of support in IPDPs

Table 10 presents the correlations of all variables from IPDPs of students. It should be borne in mind that all existing correlations are correlations on a very narrow sample(students most at risk of dropping out) and that they would be significantly higher if data for the entire population of students from pilot schools were available. Nevertheless, the existence of significant correlations argues in favor of the discriminating effect of the instrument for identification, which assessed the risk of dropping out, as well as the relevance of the instruments selected for further evaluation of students at risk (SAAS-R, High expectations of teachers and Sense of well-being).

Number of measures within IPDP is in high correlation with the estimation of the quality of IPDP, which could mean that teachers who are motivated to support the student, which is reflected in the number of planned measures, devise these measures so that they can be realized, that they are sufficiently concrete and in accordance with the actual needs of students (these three things make the assessed quality of IPDPs).

The quality of IPDP is not correlated with the risk index, which probably means that motivated teachers will provide quality support to each of the students at risk, regardless of his level of vulnerability. Attesting to this interpretation is the fact that students, whose IPDP quality is higher, are students who actually feel better in school and have greater motivation for school learning. This may indicate the importance of school factors in preventing dropout. Teachers and professional service motivated to support students even before the implementation of the project, were creating a suitable climate which is manifested through a greater sense of well-being of students and their motivation.

Based on the report of professional associates, there are very strong correlations between sense of well-being, motivation of students for school learning, students' attitudes towards teachers and the school, as well as the high expectations of teachers. This data indicates that schools where teachers have high expectations from all students in terms of achievement, and that make students feel accepted, at the same time develop in students a positive attitude toward learning, toward school and toward teachers. These data are consistent with the hypothesis that schools are largely responsible for the motivation of students and that they may have an influence on it; and that motivation, although directly related to the single student, is not a dispositional characteristics, as perceived by some teachers.

	Risk index	Number of unexcused	Number of excused	Attitudes towards school and learning	High expectations	Sense of well-being	Quality of IPDP	Sum of type of support	Sum of resource of support
Risk index	1	0.409**	0.144*	-0.138*	-0.169**	-0.206**	-0.038	0.423**	-0.003
Number of unexcused	0.409**	1	-0.067	-0.256**	-0.213**	-0.239**	0.179**	0.542**	-0.021
Number of excused lessons	0.144*	-0.067	1	-0.033	-0.064	-0.024	-0.007	0.021	-0.003
Attitudes towards school and learning	-0.138*	-0.256**	-0.033	1	0.771**	0.808**	0.180**	-0.028	0.256**
High expectations of teachers	-0.169**	-0.213**	-0.064	0.771**	1	0.804**	0.137*	-0.085	0.162*
Sense of well-being	-0.206**	-0.239**	-0.024	0.808**	0.804**	1	0.193**	-0.057	0.220**
Quality of IPDP	-0.038	0.179**	-0.007	0.180**	0.137*	0.193**	1	0.445**	0.360**
Sum of type of support	0.423**	0.542**	0.021	-0.028	-0.085	-0.057	0.445**	1	0.326**
Sum of resource of support	-0.003	-0.021	-0.003	0.256**	0.162*	0.220**	0.360**	0.326**	1

Table 10. Correlations between characteristics of students with IPDP

8.1. Results of Monitoring the Effectiveness of the Project for the Students Under the Individual Support Measures

Before analyzing these data, it is necessary to note that it was only possible to take data when the project had already started, or after one semester of project implementation. This happened because the largest number of support measures related to the first-year students of secondary schools, the creation of the IPDPs started with a slight delay compared to the beginning of the project, and the focus of the project was on effective and efficient support and not on data collection. This fact tells us that these data show slightly smaller effects than if the data for these students had been collected prior to any provision of support, i.e. before the start of the project.

Absenteeism. When looking at the total number of absences in all 10 schools in a semester per number of students, that number was 101 absences before the project and 75 absences after the project (excused and unexcused absences taken together). Looking at data on absence of students who were under individualized support measures, we see something that was not expected and it is surprising at first - the number of excused absences for students under IPDP increased after the implementation of the project (with 109 absences in the first semester per student in the school year 2014/15 to 152 absences in the second half of 2015/16), while the number of unexcused absences remained similar. According to school reports, this is due to the fact that a significantly larger number of students left their place of residence because of the refugee crisis that erupted during the project and, in most cases, sought asylum abroad. Therefore, further analysis was carried out which compared absences for those students who did not leave their place of residence. Looking at these data, the number of excused absences has remained similar, while the number of unexcused absences significantly reduced due to the implementation of the project (from 41 absences per semester to 18 absences) (Chart 23). Many of these students were absent due to seasonal work with their families or for other reasons (family assistance, etc.), and therefore they were absent more than the average student. The decrease in unexcused absences actually talks points to the effects of individual support measures and the established trust between the school and students, while the unchanged number of excused absences indicates the influence of systemic factors such as poverty on school attendance (seasonal work, family assistance, etc.).

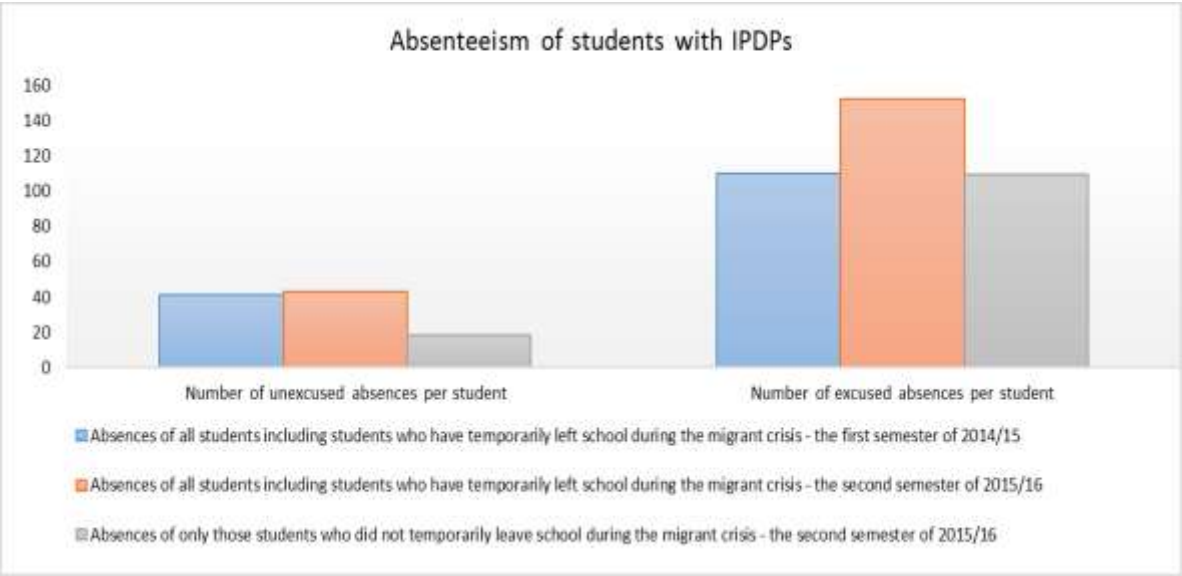


Chart 23. Changes in the absence of students under the individual support measures prior to and after the implementation of the project

Students' academic achievements under IPDP also improved when comparing the first semester and the last semester of the project implementation. At the end of the first semester of 2014/15, the average success was very low (1.29) and in the end it was higher (1.91). Although both are extremely low, there has been progress.

The rate of grade repetition. As for the rate of grade repetition, it has been extremely high for these students prior to the implementation of the project. As much as 26.2% of these students repeated a grade. At the end of the project 2.35% of students repeated a grade, while 17.7% of these students were sent to repeat exams. Although slightly lower than at the beginning of the project, the rate at which students were sent to the repeat exam is very high. Due to the aforementioned refugee crisis and the increased search of the right to asylum, 7.7% of students remained ungraded, of a total of 14.4% of the students in this group who, over an extended period, left their place of residence. One student had lost the right to regular schooling.

9. Qualitative Analysis: What Does the Change in School Look Like?

As already mentioned in the section referring to research methodology, the analysis of qualitative data based on a comparison of the situation before and after the implementation of the Model is presented here. School change is measured through aspects that are selected as relevant indicators of school change, and data were collected through the narratives of students, teachers and parents. It is important to note that although the project is aimed at changing the school culture, there was no ambition to influence all aspects.

The intention is, by presenting the results that follow in this chapter, in addition to identifying points in which progress was made, to provide insight into the general situation in Serbian schools from poorer areas, and to point to the specific areas that can and should be engaged in future initiatives. Also, the results of qualitative analysis can point to some general guidelines for future education policies.

The focus groups conducted before the implementation of the Model aimed to examine the initial state and were primarily descriptive, while the analysis presented in the text that follows is of more analytical character, comparing the closing and the initial situation. It should be noted that, although the analysis is based on a comparison to the initial state due to the transparency of the results and clearer references to changes, no detailed description of the initial situation is given, but rather the changes or lack thereof is described.

Aspects that were discussed are the following:

- Sense of well-being and acceptance of the student in the school,
- Quality of teaching and assessment, high expections of teachers and additional support,
- Functioning of remedial teaching,
- Dropout and current school practice dealing with dropout reduction,
- Involvement of parents and students in school life and
- Cooperation with the local community.

These aspects of school functioning were selected for qualitative analysis because:

1) Some of the aspects include activities that will be upgraded by the Dropout Prevention Model and by monitoring these aspects, the successfulness of the implementation of the model can be tracked;

2) Other aspect of school life can influence how "easy" it will be to implement the model in the school, and point to the factors that may affect the successfulness of the implementation of the model.

9.1. Results of the Analysis of the Responses Received During the Focus Groups

In contrast to previous research results in which the school was used as a "unit of analysis", the results presented in this part of the study were made on the basis of the following analytical logic - first, for each individual school the answers of each group of participants (parents,

students, teachers) were synthesized and generalized in each of the areas investigated (sense of well-being and acceptance of students in school; grading, the quality of teaching, high expectations, additional support; dropout rate; remedial teaching, the involvement of parents and students in school life and cooperation with local self-government and local institutions and organizations), after which responses of each group of participants from all 10 schools within a test area were unified (e.g., a conclusion based on the opinions, perceptions and attitudes of all students, in all of the schools when it comes to grading practices). Also, wherever it was possible to point to a specificity, especially when it comes to good practice, we pointed to a specific school the specificity referred to.

This means that the results that follow present a recapitulation of a much more detailed analysis that includes concrete testimony of the focus groups and, to a considerable extent, contains detailed elaborated contents. Such a "summary review" aims to more easily monitor and understand the changes that have occurred in the pilot schools and to avoid duplication of content, which is inevitable when the same groups of respondents were asked the same questions in the same or very similar context.

Yet, in order to make the situation to some extent concretized and systematically present the results of analyses of the responses received during the focus groups in one place, conclusions on the progress of each school are briefly described in Appendix 3.

9.1.1. Sense of well-being and acceptance of student in the school

When the statements of the interviewed **parents** are generalized, it can be concluded that in nine out of ten schools there is a positive atmosphere and that students feel good and welcome, and such attitudes of parents are a positive shift in relation to the attitudes and perceptions presented in the period prior to the implementation of the project. According to the parents, the students have become much more satisfied with the school and their activities in it, they perceive it more as “their place” that can be influenced by them and where they themselves contribute to creating the rules and later respecting them..

It is important to point out good practices in three schools (two primary and one secondary vocational) where the approach of the school management is characterized by encouraging students to feel free to turn to any member of the collective including the school principals, and that in these schools a "family relationship" between students and teachers is fostered. In two schools the parents explicitly reported that in the past two years the communication has improved between principals and parents on the one side, and the principal and the teachers on the other.. As a particularly good example that the changes in the focus of school administration can bring for the benefit of students, we should commend the primary school "Bratstvo jedinstvo" from Vrbas.

Parents emphasize the new school practice that they believe could further contribute to the sense of well-being of students, which is commending students on the school website, if there is one, which is a novelty in comparison to the initial situation.

Essentially, it can be concluded that in all final focus groups, parents emphasize that the students' sense of well-being further improved and that discrimination, where there used to be, was visibly reduced, as both teachers and students became more aware of discriminatory practices, and their actions reflected in its reduction. In this sense, we should point out one instance where, through peer team activities (organizing Forum Theatre) to which parents were invited, students were taught how to recognize and fight against discrimination.

The **students** in eight out of ten schools believe that all students feel welcome in their schools, in contrast to the results of the first focus group of the Baseline Study where students from seven schools agreed that they do not all feel equally well in schools. What is more significant is the fact that, unlike the period two years ago, when half of the students thought that there was a strong discrimination by individual teachers on ethnic grounds, now students of the same schools shared the impression that students of all nationalities and social backgrounds feel equally well and welcome in their schools. Also, unlike two years ago, when bullying was discussed in seven schools, students now mention only sporadic cases of peer violence. Almost all students are satisfied that they have communication with teachers and feel that everybody can count on the support of school staff, and above all, the support of professional associates.

However, students still feel that there are exceptions, for example, when a sense of well-being of students decreases due to peer teasing; part of the students reported the fact that some teachers still have different attitudes toward certain students and that this distinction is sometimes made based on a student's financial situation, sometimes on discipline, sometimes on ethnicity, and mostly on academic achievements. In one school, the situation remains unchanged - cases of humiliation of students by teachers are still reported.

In two schools, as opposed to the opinion described in the Baseline Study on the basis of which it was concluded that peer rejection of students from marginalized groups was very prominent in these schools, the students of these schools now find that there is no more rejection despite of mutual differences.

Also, it is important to point out that many of the responses of students - focus group participants, described their different perceptions, which, in turn, depended on the level of their involvement in school life; students who are members of student parliaments and peer teams positively assess the sense of well-being of students and the school atmosphere.

Great progress in all schools has been made when it comes to a sense of security - now all students from all schools confirm that they feel safe at school, while in the Baseline Study students of most schools expressed that they did not feel completely safe in school.

Like two years ago, when the first focus groups were organized for the needs of the Baseline Study, **teachers**' opinions on school climate were different and varied from very positive to neither good nor bad.

The group of teachers who see progress in relation to the situation prior to the implementation of the project, are of the opinion that today in their schools Roma students, but also all those who are in any way different from the majority, are more accepted, and that a more "sensitized" and more appropriate behavior of the teachers themselves contributed to this. These attitudes of teachers are a change in relation to the Baseline Study, where teachers overwhelmingly denied that there was any separation of students from marginalized groups and argued that they felt accepted and included, which, however, was in stark contrast with the attitudes of students at that time. In this regard, and bearing in mind that now the students consider that the attitude of teachers towards them changed for the better, this change of teachers' attitudes can be interpreted as a result of the trainings they attended, which contributed to a greater sensitivity of teachers and their ability to recognize discriminatory behavior and situations. This is confirmed by the answers of the participants of the focus groups, especially students and parents, with the conclusion that there has been a reduction of discrimination and segregation of students from marginalized groups.

When it comes to the relationship between teachers and parents, teachers point out that six schools have good communication, and that their schools have special understanding for

parents of lower educational and socioeconomic status, because they recognize all the challenges that the parents from these groups meet.

Today, in addition to students' parliament, which has a different function and was recognized in different schools, in nine out of ten schools the peer team is well-functioning. Teachers believe it is very important that peer teams have been established throughout the project, but it is especially important that peer teams not only inform other students about the values and certain rules of conduct that the school upholds, about their role and capabilities, the organization of various actions, forums, events; but they are a group students can often turn to if they have problems with other students, teachers, learning, etc. In such cases, the peer team directs students to departments or individuals that may be helpful. In this way, according to the teachers, the students have become a "resource" none of the school employees had been aware of; the most common forms of peer support are learning assistance or help with socialization.

However, some teachers still do not recognize the "threat" that peer teasing brings, which was also in previous focus groups rated as "normal".

A good example of a school with a good atmosphere and mutual respect between students, teachers and parents is the primary school "Branko Radičević" from Vladičin Han.

9.1.2. Assessment, Quality of Teaching, High Expectations, Additional Support

Today, all focus group participants - **students, teachers and parents** - in the vast majority of schools consider that in all schools there is a fair grading practice, which is much more positive than the first findings from the focus groups when the different grading criteria were indicated in relation to whether the student was perceived as a "good student" or not, in relation to the student's socioeconomic status or profession of the student's parent.

Teachers from all schools claim that they adapt teaching and grading to at-risk students, and that they slowly realize the true significance of individualization and differentiation for other students in need. After two years of project implementation and cooperation with their colleagues, teachers understand what and how can be individualized, that individualization does not mean a reduction of material but that it is related to a lot of other measures such as praise, working together in the classroom, formative assessment, etc. A large part of the teachers highlight that the seminars they attended during the project helped them to significantly improve their grading practices. Also, earlier, teachers were mostly of the opinion, that students are graded on the demonstrated knowledge and have a lot of opportunity to improve their grades, without taking into account that not all students have the same initial conditions which provide equal learning chances and school success. Today, the majority of teachers in all schools, adjust the manner and frequency of grading according to need, especially when it is outlined in the IPDP. Students for whom IPDP was developed are given a second chance, grading practice is entirely individualized, and grading is used also as a motivational tool through which the student's efforts are rewarded, not just knowledge, with the aim of motivating students to earn a better final grade in certain subjects.

Students of all schools mostly think that today grading practices in their schools are fair and, in contrast to the findings from the first focus group, and they believe that there is no difference in the relationship of teachers and students on the basis of students' socioeconomic status. However, when it comes to attitudes of some students, it should be mentioned that they pointed out occasional moments when they believe that some students get better grades for less material learned. In this context, it should be noted that, in line with the framework of the

project, IPDPs that were implemented included measures such as individualized outcomes and standards of learning, and that teachers also talked about the positive effects of training on differentiation and individualization of learning and application of the learned material, which explain such claims from students ("some students get better grades in less material learned"), especially due to the common position of all participants in the focus groups that there is a fair assessment in the school.

Unlike two years ago**, parents** now expressed their dissatisfaction with the school grading practices to a much lesser extent and specifically commended the increasing number of opportunities students have to improve grades. The conclusion on the progress in the two years would have been even more positive if part of the parents in each school did not still believe that in schools attended by their children grades were not a measure of knowledge, and that in grading, students who come from families of higher social and material status were privileged.

Students have different views about the quality of instruction in each school. Part of the students believes that the quality of teaching is good and is satisfied with the teaching in their schools, while other students disagree because they believe that teachers do not have the same expectations from all students. This finding was most common in secondary schools where students believed that teachers' behavior depends on the education profile, and that teachers have much lower criteria for students attending the three-year profiles because, according to them, these students are educated for a profile of lower "social value".

All students praised the peer teams which have been formed in each school as a big and important novelty established during project implementation. Students in half of the schools involved in the project believe that their school is much more active in terms of student involvement in the last two years, and a vast majority of them states that teaching of some teachers improved in the past two years because of a more frequent use of computers and presentations in the classroom.

Most of the **teachers**, as it was the case also before the start of the project, believe that the quality of teaching in their school is satisfactory and that they adapted teaching to the needs of students. The largest number of teachers believed that they use various methods to make classes more interesting (mainly the through the introduction of multimedia content), that they endeavor to help students and adapt to the students' needs. In addition, the teachers highlighted how the seminars they attended helped them to realize the significance that the effects of the application of the method of adjustment and differentiation in teaching had on students, and that therefore, , they use this method more frequently. They also emphasized that the instrument for identification of at-risk students drew special attention to the students and their needs, and that its specific value was in the existence of "written evidence". Most teachers of all the schools were of the opinion that all students could achieve success, and this confirms that there are high expectations for all students. It is believed that teachers paid maximum attention to students who need extra support. However, some of the teachers in three schools believed that there were students who "use" the situation when classes are tailored for specific students, so they expected the teacher to apply the same criteria to them, even though, according to the teachers, they had no real need for it.

Within the project, all teachers attended trainings aimed at improving the quality of teaching, but opinions on the usefulness of these trainings differed, and more so within a group of teachers in an individual school, rather than school to school. While some teachers believed that the training was very useful, a smaller number was of the opinion that these trainings were meaningless exercises because they degrade teachers ("they already know all that"). In three schools, for some teachers inclusion is still exclusively associated with the education of students

with disabilities. More specifically, these observations triggered many new questions that are not the subject of this study, but they are certainly important for education in Serbia.

Parents still assess the quality of teaching in six schools as inadequate and believe that teachers' approach to the teaching process should be changed and improved. They would also improve the approach to students, as their children generally say they were bored in school. They do not doubt the expertise of teachers when it comes to their subject, but they question the methodological part of their work and considered that this was directly reflected in the students' interest in the subject. In other schools, parents were satisfied with the quality of teaching, noting that there was always room for improvement. It is important to point out that in each of the schools parents cited specific positive cases of teachers and quality classes, and it is particularly interesting to conclude that the common denominator of all these examples was the possibility of active involvement of students.

Regarding additional support, the majority of the parents knew of the existence of the IEP, but did not know its content, purpose, intent and possibilities, and in most cases parents believed that IEP was used only for students with developmental disorders and disability, which is a slight difference compared to the results of the first focus groups where parents did not even know of the existence of the IEP or any form of individualization.

Most **teachers and students** considered that it was an improvement, compared to two years ago when the project began, that students are now aware that schools offer different types of support (from support in learning to psycho-social support, although the development of certain types of support depends from school to school) and now students are freer to address teachers when they have a problem and are confident that the required help and support will be provided.

From concrete examples of additional support of the school to poor students, a practice worth noting is when school teachers help raise funds to help the students using personal income. Thus, for example, Technical school from Vladičin Han said that the school is working on occasionally providing students free meals from the personal incomes of teachers. Polytechnic School from Kragujevac also provides meals from personal incomes of teachers, who call this fundraising "the professorial fund". Students have the option to use school cafeteria and bakery owned by the school. In addition to these schools, the technical school "23. maj" from Pančevo owns a bakery to enable students to have free meals. Other schools have indicated that they provide assistance from their local self-government. Primary school "Branko Radičević" from Vladičin Han reported that there are 50 students who come from financially insecure families, and that funds to finance them are provided by the local self-government. PS "Jovan Jovanović Zmaj" from Surdulica, besides the local self-government, is occasionally helped by private entrepreneurs.

Example of great diversification of support measures can be seen in primary school "Bratstvo jedinstvo" from Vrbas, which progressed a lot compared to the situation before the start of project implementation. Also, the school has introduced a bi-weekly practice where the students with poor material and family conditions can use one cabinet for reading, computer work, homework, etc., which proved to be very beneficial for students.

Also, the PS "Jovan Jovanović Zmaj" from Surdulica can serve as an example of how a very good school can be further improved by participating in the project which empowered the school in the field of providing additional support to students from vulnerable groups. The atmosphere in the school is really nice and the impression is that the students feel very good in this school. Often you could hear all the students praise the psychologist, and parents and teachers praise

the pedagogical assistant. It is interesting to note, given the impression from other focus groups which also maintained that pedagogical assistants were very devoted to the children, the students prior to the implementation of the project were generally not able to answer the question what the pedagogical assistant actually did. This situation changed dramatically at the end of the project when all the students were familiar with the activities and the support provided by the pedagogical assistant.

9.1.3. Dropout Prevention Practices

In contrast to the situation before the beginning of the project, when the representatives of all focus groups generally saw the reasons for dropout in the inactivity and lack of motivation in students and the lack of interest in parents, the situation today is quite different - with the exception of a few individuals in each group of participants within each school, all the participants clearly recognize poverty as the main cause of dropout. That is, all agree that the school is usually left by students who come from deprived environments, single-parent families and families that are not beneficiaries of social assistance, although they are entitled to it. In addition, neglect in the family is also recognized as a factor. Representatives of teachers specifically mention that behavioral disorders due to abuse and neglect in the family are frequently present among the dropout risk factors.

According to the collected data/perceptions of participants, no difference can be made between primary and secondary schools.

Parents are now particularly aware that the key factors affecting the dropout are poor family conditions and socioeconomic status of students (i.e. lack of funds for the purchase of textbooks, meals, clothes and shoes, and when children are forced to work to support the family), but they point out that there are examples of parental disinterest and neglect when it comes to the education of children. In each of the schools examples were stated of a teacher's caring for students who have been absent, and who, as they were given special attention in the past, regain motivation for attending school and learning. As another reason for the dropout, parents stated that children know that secondary school attendance is not mandatory and do not want to go to school.

Students are very aware of the impact of a difficult financial situation on educational achievement. They are much more aware of the support that they can provide to their peers at risk of dropping out, which is much more clearly expressed compared to the findings of the Baseline Study. They say themselves that the students were more active and more engaged in school in the past year, that they offer more help to other students in learning, but also that there are more school activities in which they participate, which aim to help students who do not have enough financial resources for school supplies and textbooks. Each of the students knew at least one person whom he could contact upon finding out that someone wanted to leave school, which is a bit different from the findings from two years ago when the majority was not sure who they should address, much less whether they would be heard and whether the school would act on it.

All tested **teachers** in eight schools and a lot of teachers in the remaining two considered that one of the most common and the most important reasons for the dropout of students is low valuation of education and lack of support from the family, and social status of the parents. They find that the school does everything in its power to help the students. Part of the teachers stated examples of adapting teaching as a preventive measure that has affected the dropout of students, and some teachers indicate the importance of provision of material assistance. Measures taken by teachers in all schools should have an educational effect, students are

animated through various activities during the school year, the psychological-pedagogical service plays an important role in eight of the ten schools (talk with children, parents, cooperation with all parties involved), a most often, the class teacher, in contact with the school psychologist and school pedagogue invites parents for an iterview. All teachers state that students themselves ask to talk with someone when they have problems, and that sense of shame is no longer an obstacle in turning for help (which is consistent with the statements of students). They find that dropout is much more a topic of discussions, that teachers discuss it at the class council meetings, that they are aware of students who have individual plans for dropout prevention and everybody considers these plans useful, although not all teachers that participated in focus groups were directly involved in their development and implementation. One teacher gave the example of two students for whom she knew had IPDPs and for whom it was noted that they have much better achievement in this school year. The impression is that teachers feel less helpless when it comes to preventing dropout, than in the period before the start of the project.

As direct changes resulting from the project, the teachers listed the formation of peer teams, the importance of trainings they attended, and the use of the instrument for identifying at-risk students which made them "think more about students".

However, either based on the responses of teachers in the focus groups or based on the opinion of their colleagues that the focus group participants presented, it can be concluded that in all schools there are still teachers who do not go deeper into the reasons for dropout, but generalize different manifestations of student conduct, so as factors of the dropout they list students' laziness, indifference and "habits from primary school", suggesting that students do not have working habits and do not respect their obligations when it comes to learning. Some of the teachers believe students drop out of school because they are not motivated and they have lack of interest, and they all agree that this comes from the family and that the lack of support from family influences the attitudes of children who drop out of school. Unfortunately, this means that, although the lack of support from the family is an important factor that affects student dropout , some teachers still do not recognize that non-valuation of education and parents' indifference are the result of numerous factors, which they can influence through quality cooperation with the parents.

Based on the statements of part of the teachers, the fact that some teachers took it as a personal failure when a few students failed to improve their achievement or stay in school was also seen as a challenge, regardless of the amount of effort the teachers put into preventing dropout. Such cases were demotivating for teachers, so they began to question the purpose of IPDPs and their investing time and effort in dropout prevention for individual students on whom a large number of factors operates.

It should be noted that representatives of all 10 schools stated that they apply the standard legal procedures if noticed that a student is at risk of dropping out - upon noticing that a student does not attend school, the class teacher informs parents/guardians in writing of the problem and calls them for an interview. Schools with teaching assistants have indicated that if the parents/guardians of students do not come to school and do not respond to the call, the pedagogical assistant visits the student's family announced or unannounced. After the visit, the school closely monitors the regular attendance of this student and his behavior, and provides daily support in the form of advisory discussions with the class teacher, pedagogue, psychologist and subject teachers. Measures are also undertaken to encourage students to get involved in extracurricular activities, student parliament, school clubs and so on. Thus, in the SVS "4. juli " in Vrbas, among other activities, workshops are held in civic education classes

aimed to help t-risk students. In some schools measures are also regularly applied in the form of humanitarian actions for free meals, textbooks, clothing, shoes and free excursions and graduation. In the Polytechnic School in Kragujevac they mentioned specific cases when poor students were provided assistance in the form of purchasing monthly transit passes, providing monthly school meals, collection of textbooks, free excursions. Also, in the SVS "4. juli" in Vrbas and in the primary school "Branko Radičević" in Vladičin Han, teachers report that, if there is a risk of leaving school connected to the material conditions of a student, the school strives to provide assistance with the help of the Center for Social Work and the local self-government for meals, school supplies, etc.

There has been progress in the number of measures taken in cases of dropout, in comparison to the Baseline Study.

Among the listed activities that the schools take when it comes to prevention and response in cases of dropout, the IPDPs and cooperation with parents are at the top. Teachers fully agree that the instrument for identification helped them to get a clear overview of the "situation" for each of the students. Also, part of the schools have been involved in projects aimed at linking the labor market and the school, so the involvement of schools in intensifying working practices and increasing the employment opportunities after graduation has motivated many students, especially those in the three-year profiles, not only to enroll in these schools, but also to complete their education.

9.1.4. Remedial Teaching

Parents at all schools in the majority agree that the remedial classes are now regularly held and give good results, they are informed about the organization of additional classes which was not the case in the findings from two years ago. However, some parents emphasize that sometimes a teacher does not show up for scheduled remedial classes. In the implementation of remedial classes parents see the problem in low motivation and desire of students that attend. They believe that the problem of attending additional classes could be solved, if it would become mandatory, and would entail the same penalties (for unexcused absences) as regular classes.

An additional change from the initial results of the focus groups is that parents in many cases now consider that students who go to remedial classes are not marked as someone who failed, either by teachers or by peers. Also, parents are aware of cases in which remedial classes are used as classes where all students can improve their grades, regardless of whether this assessment is "good" and a student wants more, or negative. This is also a change from the period two years ago when the parents felt that additional classes were organized exclusively for students who have the lowest academic achievement. Regarding transparency in the organization of additional classes, parents both from primary and secondary schools agree that information on the organization of additional classes should be visible to everyone, and especially to them.

Most **students** continue to be dissatisfied with remedial teaching, and the reason for this can be seen in a few examples that illustrate the problem in the organization of additional classes, but not in their quality. In each of the groups, students reported cases of teachers welcoming all students to remedial classes, and teachers whose remedial classes may be attended only by students with low academic achievement. Almost all students find that students who attend remedial classes are not seen as someone who failed, which is a big change compared to the findings from two years ago when the students felt that part of the "poorer" students do not attend remedial classes out of shame. Students find that the teacher in remedial classes has more time to explain to them all individually and that attending remedial classes gives good

results. Also, in contrast to the findings of the first focus group, all students would rather go to remedial classes than take private lessons, because they know their teachers.

Both **teachers** and parents find that there should be a way to make remedial classes mandatory, especially for students who come from families that do not have adequate conditions for learning, and/or those with learning difficulties, and they need remedial classes to successfully master the school curriculum. This attitude of teachers is very different from the results obtained during the first round of focus groups when teachers in most cases did not realize there was a connection between a student's living conditions and their need for remedial teaching, and were of the opinion that additional classes should be an activity carried out if necessary rather than continuously. Also, schools now emphasize that the "school creativity" is in a sense still limited by law (e.g. it is not allowed to engage volunteers who would teach remedial classes).

Also, teachers point out that the issue of additional classes remains a challenge (when students have at least six lessons a day, when the school has a two-shift operation and when a number of students have transportation to the city where they live only at a certain time).

9.1.5. Involvement of parents and students in school life

In the focus groups with students, teachers and parents, the activities mentioned most often which that reflected the involvement of students and parents in school life, were still the ones that involved the collection of material assistance, which was something that the participants proudly listed as examples of good practice. This finding is not surprising given that the Baseline Study showed that in all schools the most represented are those students for whom poverty is the strongest risk factor, together with behavioral problems and acceptance of students in school.

As before the start of the project, teachers from all schools report that the cooperation is established by presenting the problem to the parents so that appropriate measures could be taken that are in the best interests of the child. Also, they report that it is difficult to establish cooperation with the parents who are out of work and in the daily struggle for survival, which puts aside the care about the education of their children, and it is particularly difficult to establish cooperation with parents who do not value education. This can be interpreted as progress, because prior to project implementation the attitude present in most schools was that parents simply refuse, or are not interested in cooperation.

At the same time, parents find that they are sufficiently involved in school life, but also that there is room for improving this cooperation, and that there are examples of a complete exclusion of parents, but primarily because parents are not interested, or, for various reasons, cannot be involved. The impression is that in most schools parents are a lot more involved in school life than it was the case prior to the start of the project, when parents who participated in the focus groups developed for the needs of the Baseline Study indicated that they were also informed of, but not involved in school events. However, part of the parents stated that there is a Parents' council in their school, but that through it the parents were only formally involved in school work, but did not actually participate in the decision-making processes. Compared with the situation before the start of the project, it seems that parents are more familiar with the student activities, and they are particularly interested and informed about extracurricular activities implemented by peer teams.

Students of all schools believe that parents are sufficiently involved in school life, in contrast to the findings of the first focus group, but at the same time, they do not recognize the special

importance of parental involvement in the life and work of the school. Also, unlike the first focus group, the impression is that the students are now much more aware of their importance in the activities of peer support, and point out that they have increased their opportunities to participate in school life. During the project, students have been involved in a variety of extracurricular activities, particularly in support of learning (students especially highlighted situations where those who have high academic achievements help others to master the mathematics curriculum). The extent to which students are active and respected in the Students' Parliament depends on the school, but the example of three schools where students show great satisfaction with the involvement of the Parliament in school life, especially emphasizes the ability to influence decisions concerning certain aspects of school life and students say that, compared to the time before the start of the project, now they, as members of parliaments, do much better. Nearly all students are informed about the involvement of peer teams.

Technical school from Vladičin Han and THS "Toza Dragović" are examples of well-designed and implemented activities of peer teams.

9.1.6. Cooperation with Local Self-Government and Local Institutions and Organizations

All schools mostly cooperate with the Centre for Social Work and the Ministry of Interior, and a large number of schools often stressed also the cooperation with the Red Cross, with whom they do charity work. Some of the schools cooperate with local NGOs, which provide them with support in the form of workshops on health, non-violence and tolerance. Technical School "23. maj" from Pančevo points out good cooperation with a bus-carrier that provides free transportation for students of low socioeconomic status, and ACS "Dr Đorđe Radić" from Kraljevo states having satisfactory cooperation, in addition to the above-mentioned institutions, also with the Group for Social Inclusion of the MoESTD.

Regardless of the above findings, **teachers** in most cases assess the cooperation with the institutions of local self-government as moderate and believe that there is still room for the improvement of cooperation, which is in line with the findings of the Baseline Study. Before the start of the project, teachers talked about the "fair" cooperation with the local community, and mentioned as the main cause for it was almost always the financial crisis of the municipalities. They also believe that the cooperation with the Centre for Social Work must be improved. The difference is, however, noticeable in the increased activism of teachers in cooperation with the private sector when they need support for the organization and implementation of humanitarian activities in the school.

The impact of the project (of course, in addition to other engagements of the school) on changing the school ethos and attitudes of teachers should also be acknowledged. A good example relates to the Polytechnic School in Kragujevac, where, in contrast to the initial findings when it was obvious that the teachers themselves have a "disrespectful" attitude toward their school (colleagues and students), now we get the impression that teachers are proud of their school and activities being implemented in it, especially the cooperation between the school with different local partners, including employers, so it could be heard that "what we (teachers and school administration) do and how we do is better than in any gymnasium".

Parents, as in the findings from the first focus group, consider that schools have good cooperation with the local institutions, and two schools report on the particularly good cooperation with the Centre for Social Work concerning violence in the family and social status of students. Some of the parents felt that the school attended by their children also cooperates

with the local self-government, which is a change in relation to the results of the Baseline Study when it was not indicated by any parent.

Students are very well acquainted with the school activities in the community, as opposed to the results of the first focus group, and there is a noticeable big difference compared to the results of the Baseline Study. Unlike previous statements in which students only occasionally mentioned examples of cooperation or activity conducted by the school, they now claim that they know that the schools organizes visits to different institutions and organizations, that the schools in different ways present themselves to the community, that they cooperate with cultural institutions, as well as with museums and cinemas. Respectively, students in most cases feel that the schools have been much more active in the local community in the past two years than they used to be.

Students especially appreciated when teachers initiated cooperation with local institutions and involved them in the activities. Students of the Polytechnic School in Kragujevac particularly pointed out the example of a student who became a member of the Centre for Education and Sustainable Development thanks to her biology teacher, also mentioning that schools were visited by volunteers who presented youth volunteering programs, which they considered important and interesting.

9.2. Additional Data Sources: Mentoring reports, Interviews with Members of the DPT, External Re-Evaluation

The regular reports prepared by mentors, enabled a systematic insight into the relationship between schools and mentors and the support of mentors provided to schools in the two-year period became visible. The conclusion from the mentors' reports is that during the first year of implementation of the project, instruction given by mentors and support in the implementation of activities were deemed as most important for schools, while in the second year of the project, when schools have become more independent in the implementation of project activities, the most significant was mentor's feedback. Also, except for information relating to the previous period, mentoring reports were the sources for the planning of future school activities and measures. In this way the regional trainings were planned pertaining to the empowerment of schools in the implementation of individualized and differentiated teaching and formative assessment. Thanks to the mentoring reports, guidelines for individualized support measures within the IPDPs were developed as well as training for the creation and implementation of action plans of peer support with the help from teachers.

Interviews with members of the DPT, conducted by an external evaluator of the project Ms. Laetitia Antonowicz, showed great satisfaction of schools with the project and their plan to continue using instruments to identify at-risk students, as well as the IPDP form. The members of the DPT described the form as demanding but most useful in helping a child, and they believe it should be integrated into the existing IEP form.

To further determine the effectiveness of the dropout prevention model, independently of the team that was responsible for its implementation, external evaluators and advisors were engaged so that, after the implementation of the project, it could be estimated how many schools have made progress in three areas: area number 3 - Achievements of students, area number 4 - Additional support to students and area number 5 - Ethos. Data from the external evaluation realized at the end of the project in six schools were compared with scores on selected standards that the school received in the previous external evaluation (before project implementation). Four schools did not participate in the external evaluation, and their external

evaluators compared the results with the data from the Baseline Study, created by the Centre for Education Policy.

According to the additional external evaluation, it is noticeable that the Dropout Prevention Model contributed to the progress in the realization of educational standards in three areas of the Standard of quality of work of educational institutions. These three areas were chosen for further evaluation because the activities in the DPM framework are associated with the highest standards in these areas. The greatest effects are present with the standards in the field 4 relating to the provision of additional support to students, which certainly contributed to the development of the system of early identification and intervention, which refers to at-risk, as the most important components of the Dropout Prevention Model. As for the field 5 - Ethos, the Model had the most effect on the improvement of cooperation and organization of the work of teachers, and in promoting students' results, while the Model had less impact on increasing the security of the school environment and organizing the school environment.

There is no school that has not progressed in at least three standards from the aforementioned three areas (Table 11). Eight schools have made progress in half or more than half of the observed standards. The least progress was made in the school that achieved the least progress also in other quantitative indicators, and it is important to note that this is a school that had the lowest quality standards out of all the pilot schools prior to the commencement of project implementation. Only one school, in one standard, showed a decline. In the Polytechnic school, regression was observed for the standard that applies to encouragement of personal, social and professional skills of students, primarily due to slightly lower number of extra-curricular activities and clubs. This is mainly due to the fact that teachers who are members of DPT were engaged in conducting these activities before the project, but the fact that participation in these sections was not brought closer to at-risk students in the best way, as some of them were still under impression that these sections were mainly reserved for successful students.

Although in the previous evaluation it achieved all the standards with the highest score, ACS “Dr Đorđe Radić "from Kraljevo made further progress during external evaluation, compared to the situation before the implementation of the project in all standards, particularly in some aspects of work, such as: effectiveness and efficiency of remedial education, support to gifted students, capacity building of teachers in the design and implementation of individualized education plans (IEP 1 and 2) and the general development of an inclusive culture, effective action on verbal abuse in terms of "labeling" students due to social disparities, and enhancing inclusive climate between the students of lower and upper grades.

In the primary school "Ljupče Španac" from Bela Palanka, improvement in certain standards has also been made, even though it is often very small so it is not possible to increase the quantitative evaluation, according to the reports of external evaluators.

Bearing in mind the above, it can be argued that the data from the external evaluation shows that the methodology that was developed within the project to evaluate the effectiveness of the Dropout Prevention Model is valid and that the information is credible in showing the degree of effectiveness of the model, due to the great correspondence between the data obtained in Baseline Study and after two years of implementation of the Dropout Prevention Model with the external evaluation findings. In all schools, the Model is effective, but it shows better results in schools that already had certain quality standards in place at the time the implementation of the Model started.

School	3.1. The achievement of student shows that education standards are realized	3.2. The school contributes to continuous higher achievement of students	4.1. The system of providing support to students is functioning in the school	4.2. The personal, professional and social development of students is encouraged in the school	4.3.The system of support to children from vulnerable groups is functioning in the school	5.1. Interpersonal relations are regulated in the school	5.2. Achievements of students and teachers are supported and promoted	5.3. The school is a safe environment for all	5.4.The school climate is pleasant for all	5.5. The school has developed cooperation at all levels	Number of standards in which progress has been made
PS "Bratstvo jedinstvo", Vrbas*	4	3	3	3	4	4	4	4	3	4	10
ACS "Dr Đorđe Radić", Kraljevo	4	4	4	4	4	4	4	4	4	4	10
TS, Vladičin Han*	3	3	3	3	4	3	3	3	3	3	8
TS "23. maj", Pančevo*	3	3	4	4	3	4	4	4	4	3	8
PS "Branko Radičević", Vladičin Han	3	3	3	3	4	3	3	3	3	3	6
PS "Jovan Jovanović Zmaj", Surdulica	3	3	3	3	3	4	3	4	4	4	6
Polytechnic School, Kragujevac	2	2	4	3	3	4	3	4	3	4	5
THS "Toza Dragović", Kragujevac	2	2	3	3	2	3	3	2	2	2	5
SVS "4. juli", Vrbas	2	2	3	3	3	3	3	3	2	3	4
PS "Ljupče Španac", Bela Palanka	1	2	3	3	4	4	3	3	4	3	3

* Schools where there were no external evaluations before the project, but progress is noted in relation to the initial status recorded by the Centre for Education Policy in the Baseline Study.

	Progress was shown in achieving standards compared to the previous period
	Achieved level of standard is the same as in the previous period
	Achieved level of standard is lower than in the previous period

Table11. Estimates of the external evaluation after the completion of the project, ten standards in three areas

10. Conclusions and Lessons Learned

The change in condition measured by quantitative indicators after two years of implementation of the **Dropout Prevention Model shows that it is effective in preventing dropout, but at the same time affects other important aspects of school functioning that relate to the whole school**, not just at-risk students. Area of school ethos and the area related to the additional support to students from the Standard of quality of educational institutions were significantly improved by re-estimates of external evaluators. One of the key findings is that the **model has the potential to change the school** in creating a participatory, more open and inclusive school, or, as stated by some parents and teachers, the Model **contributes to creating a "caring school" in which all teachers and students have developed a greater sense of well-being.**

The results of the quantitative analysis show that the Dropout Prevention Model **decreased dropout rate in the most vulnerable schools in Serbia by 66%.** It should also be taken into account that **only 5.5% of students with an IPDP interrupted schooling**, even though these are the students who live in extremely difficult conditions and often, in addition to great poverty, have other problems (e.g., a dysfunctional family, non-acceptance by peers, behavioral problems). In addition, legal regulations are not clearly aimed at preventing dropout - for example, the fact that secondary school in Serbia are not compulsory. This has **shown that the school can influence the deep and systemic dropout risk factors that are often beyond the narrow perception of the school's scope of influence (e.g. poverty)** and that it can help the most vulnerable students to remain in the education system and positively affect their future. **The Early warning and intervention system is the most important and most successful component of the Model**, according to the analysis of the effects of the Model for students for whom IPDP has been developed, and it should be expanded into other schools in the system.

Although academic achievement was not increased in vocational schools that participated in the project, **academic achievement was increased in the period of transition from class to subject teaching in primary schools**, which is the period when the risk of dropping out is the highest for at-risk students. This shows that the Model partly succeeds partly to affect the provision of additional learning support for students with low achievements. This is shown also by the reduction of grade repetition rates (23%). **The rate of absenteeism in secondary vocational schools has been reduced by about 30%**, and a similar reduction in absenteeism is recorded in primary schools, but after adjustments for students whose families have left their place of residence. These findings suggest that, in addition to preventing dropout, the Model also has a positive effect on the reduction of risk of dropping out.

The results of the qualitative analysis indicate that the **implementation of the Model caused the change of ethos within the school.** Schools believe that the change of school culture is also the result of the project structure in which the members of DPT gain knowledge and develop skills which are later dispersed capillary through the schools, including every teacher and, on the other hand, the school climate started to change "from the bottom up", by *empowering* and including students who, with the help of *empowered* teachers, started to make an significant impact on their peers, to spread inclusive values, to influence the image of the school, to influence certain policies and procedures of the school, as well as to more actively engage parents in school life.

Based on the narratives of teachers and students, the model has the power, with the support of teachers and schools, not only to help individual students, but also to change the school itself, making it a pleasant place where everyone feels good and achieves better educational results.

Unfortunately, some teachers still do not recognize the "threat" of peer teasing, which is still perceived as "normal", and some teachers still show great resistance to inclusive education.

Involving parents in school life was quite unsuccessful when only teachers launched initiatives for parental involvement in different activities, and then the participation of parents suddenly improved when students began to invite their parents to school activities whose aim was, in most cases, the prevention of discrimination and provision of additional support. However, it is noticeable that some parents and teachers still fail to recognize that the non-inclusion of some parents is not only a question of their willingness, but that participation in school life is influenced by many other factors.

Extracurricular and peer activities have proved to be an important component of the model that **allows at-risk students to regain their popularity and status in their peer group**. Through extracurricular activities, at-risk students become more accepted by their peers, which has a positive influence on their sense of well-being at school. According to the teachers, the implementation of the model, along with work on IPDPs, has led to a "softening" of the school climate in terms of providing additional support to all students. **Common goals were created and a vision of the school the employees share. It began to change the awareness of teachers about "what are preferred practices"**. However, some members of the DPT point to teachers they were not able to influence and who continued to believe that grade repetition and remedial exams is something that "helps" the student, although different research in education from different countries shows the opposite.

The effectiveness of remedial classes is confirmed, if they are organized in a way that continues to welcome all students and if students who attend are not seen as a failure. However, support for changing the remedial classes must be systemic, because the impression is that the successful implementation of additional instruction requires an organizational change in the teaching which is currently performed within a rigid timetable.

A large number of students left the school during the project to seek asylum abroad or because of seasonal jobs moved elsewhere within the territory of the Republic of Serbia. However, the most common outcome of such a migration was the return of students and their families to their home environment, after a lot of missed school and a large number of absences, which led to **the development of IPDP in the students' absence for the sake of preparing their successful reintegration.** This has **given good results.**

Cooperation at the level of local community is very important so further support to students could be more easily implemented, especially in those cases where it is necessary to provide material support or transportation. A particular problem in connection with the provision of transport is the fact that secondary school is not compulsory, so municipalities often avoid supporting students under this pretext.

Results showed that the dropout rate is higher in the so-called "transitional periods", that is, the transition to subject teaching in primary school and the first year of secondary school, and it is necessary to strengthen support to students in these periods of schooling. **Meetings where schools shared their experiences, good practices and challenges with other schools, were of great importance.** This has improved the implementation of the Dropout Prevention Model.

It should be noted that the regulatory framework that applies to data collection of the Statistical Office of the Republic of Serbia (SORS) and other institutions during a child's transition from one school to another, does not exist. Even though in the education system there is a mandatory document - the transfer paper, on the basis of which it can be determined

whether the student is enrolled in school late or came from another school, and the home school can find out whether the student has left school or just changed schools, the mechanism of the transfer paper and the associated data are not used enough nor adequately. This means that in practice there are schools that "do not delete" a student who for various reasons left the school from the student records (which is not necessarily a dropout), and one student can occur multiple times in educational statistics. At the same time, bearing in mind that statistics of SORS uses methodology for "measuring" school completion by comparing the number of enrolled students and students who have completed a certain school, but there are schools which recorded rates of school completions of more than 100% because in this school some students enrolled additionally, due to internal migration and resettlement, so the number of students leaving school at the end is higher than the initial number of students enrolling in the first grade. This means that the current methodology used for data collection is not fully adequate for the purpose - for obtaining accurate data that could easily be used for decision-making in education.

When it comes to lessons learned, an important insight is that it is necessary to use the instrument to identify at-risk students more frequently, and that general information about students (e.g., information about socioeconomic status of students, changes in motivation, achievements and behavior of individual students) as well as information about students for whom measures are implemented based on individual plans for dropout prevention (e.g., whether some of the measures implemented give good results, whether some measures show no effect, etc.) needs more frequent exchange on expert councils and pedagogic collegiums.

One of the benefits that teachers and external project evaluators noted as an important factor in the success of the project is the flexibility of the model that gives only a general framework and guidance for activities, and the school continues to elaborate its own activities and their concretization according to its needs and specificities.

It should be borne in mind that a number of students leave their home environment, mostly due to labor migration of parents or seeking asylum in EU countries. Experience indicates that, after spending some time outside the education system, it is difficult for children to take class exams and they often repeat a grade, and after repeating the grade, they most often drop out of school. This finding is very important because, in Serbia, there is no connection between regional school administrations and schools under their authority when it comes to ensuring the continuity of education for at-risk children who leave their place of residence in the context of internal migration.

Schools need the support of the system for the establishment of a more flexible model of remedial teaching, which would be adapted to the needs of students in terms of time, personnel and teaching. This means that it would be desirable not to be necessary for remedial classes to be held by the same teacher who holds regular classes, that peer support could run during the remedial classes, as well as that remedial teaching should be organized around the municipal transportation schedule, and that remedial classes are not only held as the last class in a day or as a so-called "pre-class".

Most of dropouts in pilot schools (30 girls) occurred due to early pregnancy or marriage. Although all schools worked intensively to ensure family support for these students to continue their education, dropout most often occurred in cases where the school did not succeed in obtaining this support entirely. Examples of good practice are schools that state that support was directed mainly towards the family member who had the greatest influence in the family. If such intervention was implemented, it did not come to dropout. In other, unsuccessful attempts to prevent school dropout, schools often did not have this information, which is attributed to the

lack of time to build a relationship of trust with students. In fact, the quality of the relationship with the students depended on the ability of the school to provide support to families to continue the student's education. Therefore, with students with pregnancies that occurred during the support within the IPDP, leaving school was much rarer. This conclusion is supported by data from secondary vocational schools, with a predominantly female student population, indicating their reduced dropout rates.

This finding suggests that schools should take a holistic approach when completing this instrument to identify students at risk and in developing individual support measures, with full appreciation and understanding of the specific context in which the student lives. For example, if the identification is properly made, then it can hardly be said that early marriage would be a surprise, especially if we have in mind the link between early marriage and poverty, and cultural patterns of certain ethnic and social groups where early marriage and motherhood are viewed in a positive light (Roma population, rural population, etc.), and the possibility of the operation of this risk factor should be kept in mind when developing IPDP.

One of the systemic issues which had been the cause of several cases of dropout (3) is the failure of the municipality to provide financing for transportation of very poor students. School initiatives to address this issue were fruitless, and it happened that because of this students interrupted education. All these cases relate to secondary school students because by law secondary school is not compulsory and it does not oblige the municipality to provide students' transportation funding.

Level of dropout risk is not everywhere equally present and high. Students attending schools in the most deprived environments are at higher risk. Additionally, at higher risk are students in secondary schools, in particular in schools having three-year profiles.

Transition from primary to secondary school is for some groups of students extremely sensitive and a period full of risk in terms of dropout. Unfortunately, schools still do not fully recognize the importance of providing systemic support in this period. Namely, primary schools do not see their role in motivating students to continue their education after finishing primary school. Secondary schools expect that already in primary schools students are familiar with the education profiles offered in that local community, the chances of getting a job after finishing a certain secondary school, etc. This is particularly important, because if a student completes only primary school, this young person has fewer possibilities for employment and less chance to get out of the vicious circle of poverty.

Project experience shows that it is necessary to pay special attention to providing the basic conditions for attending school. It is therefore necessary to additionally finance vulnerable schools and local self-governments in which these schools are located, to ensure that all students from these schools who have been identified as students at high risk of dropping out are provided the following: financial support from the social protection system focused on education-related costs (textbooks, supplies, etc.), financial support of social protection systems to meet the basic needs (a school meal, clothes and shoes, if necessary), free transportation for at-risk students provided by the local self-government (this is especially important for students of secondary vocational schools since the law does not oblige the local self-government to cover the cost of transportation because secondary school is not mandatory), better system of scholarships and other measures of social protection and other systems, which are important for regular school attendance.

If the school applies the recommended Dropout Prevention Model, it is certainly focused on the issue of considering and solving problems related to the financial status of the student's family

and on meeting basic needs of the student. However, not all schools are in the position to obtain support and active participation of relevant actors, so the dropout prevention should be introduced by the system as an obligation also of other actors at the local level, not only school.

Establishing horizontal networks of schools and exchange of experience and examples of good practice between the schools concerning dropout prevention (but also other issues) is of great importance, but it is not present in our system.

11. Recommendations for Education Policies

Recommendations for education policies result from the implementation of the project *Combating early school leaving in Serbia through effective dropout prevention and intervention measures at the school level* and from the evaluation of the efficacy of Dropout Prevention Model that was implemented in pilot schools participating in this project. These recommendations are primarily based on the results described in this study and experience gained in the course of the project implementation, and refer to the level of the education system, school level and the level of local self-governments.

Recommendations at system level

Application of the developed Dropout Prevention Model which was tested in this project in all schools. Having in mind that results of the project indicate that the implementation of this model gave results in all schools, the most important recommendation is that this model should be implemented in all schools in Serbia in order to prevent student dropout. This can be done by a special legal act that would be related to dropout prevention, but also through amendments of the current Rulebook on additional educational, health and social support to child and student.[20]

The following are specific recommendations that should be taken into account in the formulation of the laws, regulations or bylaws that will oblige all schools to apply the Dropout Prevention Model.

Early Warning and Intervention System is the most complex part of the Model. In order to apply it in the right way, it is important that class teachers in **schools continuously and regularly evaluate the dropout risk (implementing the tested Instrument for the identification of students at dropout risk)** at least four times in a school year. **School teams should be restructured** so that students under risk would not be "omitted" or "invisible" (e.g. by expanding the jurisdiction of the team for inclusive education, by establishing a team for dropout prevention or in some other way that would cover active dealing of the school with dropout prevention). **The training program developed during the project** and which is directly linked to dropout prevention and implementation of the Model, **should be accredited** on the list of trainings of the Ministry of Education, Science and Technological Development; in this way a training would be provided for school staff for a competent provision of support to students at dropout risk.

The tool that during the project was primarily focused on preventing dropout - IPDP - should be linked to the existing individual education plan (IEP) - **it is necessary to integrate all aspects of support to students from IPDP and IEP into a unified document.** It is of essential importance to apply the principle of **"one child – one plan"** as the project experience showed that the implementation of IPDP was very efficient in dropout prevention although measures in the IPDP covered very different types of support.

As severeabsenteeism is one of the predictors of students' dropout, it is necessary to provide a special educational support to students whose parents are work migrants, namely, to develop **special measures of support for students whose families frequently change their residence and who do not speak the language of instruction.** For those students who temporarily leave school because of seasonal migration within Serbia, it is necessary to establish a cooperation between the school and the regional school administration so that these

[20] *Official Gazette of RS,* no. 63/100

students could **temporarily attend school in the municipality to which they migrated, without administrative obstacles and with an explicit flexibility of the system.** All efforts in this field should be realized under the principle that the situation must be evaluated and a decision must be made which is in the best interest of the student. Within these measures it is important to recognize also other reasons of severe absenteeism (e.g. prolonged sickness or some other reasons), and part of the measures must refer to the realization of compensatory work in order to catch up with the curriculum.

Peer support, as a resource which is not used to a sufficient extent in schools, should become a regular part of the school's fight against dropout. Also, the role of students' parliament should be empowered so that it could have more influence on decision making in schools (e.g. giving it the right to vote).

Reconceptualization of remedial teaching in schools means that schools should be more flexible in realizing and organization of remedial teaching. In the project it was proved that the current mode of realizing and organizing remedial teaching did not meet the real needs of students and that remedial teaching did not fulfill its basic purpose, but also that schools could use also new concepts in realizing remedial teaching: inclusion of volunteers, placing of remedial classes outside the school (e.g. homework clubs within the local community).

Cooperation with parents does not move in the direction of realizing the essence of mutual cooperation (at school level there are special recommendations for cooperation with parents). At the system level different ways for consistent implementation of regulations could be developed.

Empowering the capacity of the school staff and changing of school culture must be supported at system level through amendments of standards of quality of work of schools so that in the **external evaluation, the indicators concerning student dropout would also be monitored.** Also, regional school administrations should be empowered through trainings so that they could more successfully monitor the changes and school activities on dropout prevention as well as be able to provide more support to teachers.

In the course of the implementation of the project, needs were identified for formulating special recommendations at system level:

Girls from the Roma population are recognized as a group which is at particularly high dropout risk and risk of not continuing education after completing one cycle (most frequently after the first cycle) of education. Although there are already some affirmative measures in place, it is important to develop a system of additional support to girls from the Roma population and in case of early marriage and teen pregnancy.

Collection and processing of relevant data is of extreme importance in dropout prevention. The data should be used for collection of data for public policies, but also for policies at school level. Considering the legal framework and its potential changes and/or better implementation of the existing framework dealing with dropout, it is important to point out that the legislation should cover some important aspects that are currently not present in our system.

Introduction of compulsory monitoring system from the beginning of the implementation of measures is necessary in order to monitor the effectiveness of the introduced measures. It would be desirable to conduct monitoring of dropout at the national level and show the results of targeted measures so that their effectiveness could be examined. The results of the monitoring should be aimed at improvement of systemic measures.

The introduction of the obligation to collect additional data, such as data on school performance and the number of excused and unexcused absences is extremely important because they can serve as a "warning light" on the basis of which the preventive system could act very successfully, keeping in mind that dropout can be predicted. The lack of such records is a problem for monitoring and creation of adequate interventions for students who are returning to the education system after long periods of absence (e.g. due to migration of poor Roma families abroad for the sake of temporary work).

The fact that there is no **Education Information System (EIS)** although it is foreseen by the Law, precludes a more effective and efficient way of monitoring students when moving from one school to another. In the EIS, each child could be identified based on the uniform education number that would enable the monitoring of the education path of the student, especially of those students at dropout risk, and provision of additional support. It is particularly important for children who are moved from one school to another for disciplinary or other reasons, which still represents an old-fashioned and problematic practice in our education system.

By systemic prevention of practices that negatively affect the reduction of dropout rates the repetition of grades should be impeded or prevented. Excessive reliance on this mechanism actually prevents moving attention to supporting the student in school by shifting all the responsibility for the failure on the student, and not on difficult circumstances and the "vicious circle of poverty." Other practices that are negative and ineffective in reducing student dropout rates, such as discrimination by teachers and peers, excessive disciplining of students, etc. should also be actively prevented.

Developing and maintaining intersectoral cooperation is a prerequisite to properly direct dropout prevention measures. Long-term systemic prevention of dropout is impossible without a developed intersectoral cooperation. The education system cannot independently prevent the dropout of students nor do the reasons for the dropout of students lie exclusively in the educational system. It is necessary **to develop protocols on cooperation with relevant ministries that would be "mapped" to the level of local self-government**, including the establishment of vertical and horizontal cooperation, a clearer definition of responsibilities and procedures as well as the desired outcomes. The most important thing is to establish firm commitments and cooperation procedures. It is particularly significant for the cooperation of ministries of Education, Youth and Sports, Social Policy, Health and Finance. In addition, one should not rule out the establishment of cooperation with the business sector. In addition to the protocol as an operational document, it is important to initiate the development of a strategic document and the accompanying action plan at the level of ministries, with the involvement of partners from other sectors (civil sector, business sector, local self-governments). Such an effort would contribute to ensuring a clear coordination and measurable indicators of change. Also, if all of this becomes a priority for several sectors, it is easier to secure the funding of the activities.

Given that funding is a particularly sensitive issue, it is necessary to consider **the introduction of "per capita" funding**. By financing "per student" instead of per class, savings could be achieved on resources aimed at the education system and those funds could support schools and local self-governments that have difficulties with the provision of resources such as covering student transportation costs.. Considering that secondary education is still not compulsory and that there is no legal obligation to provide all conditions for attending secondary education, it is necessary to consider additional funding in particular for "disadvantaged" schools. One way of providing additional resources is to prepare a special contract between the relevant ministry, local authorities and schools themselves, which would

set goals and desired outcomes related to dropout prevention. It is possible to introduce also a mechanism for the award financing in the case of achieving the set goals, or make a "formula" by which schools that are very successful in reducing student dropout would be additionally financed, but also the mechanism of awarding low-value donations to schools in poor municipalities that develop innovative ways to prevent dropout. This is related to the need to develop **mechanisms to support children from vulnerable groups so that they could continue their education.** Where such measures are already in place (e.g. Art. 35 of the Law on Primary Education, Official Gazette of RS, no. 55/2013), the promotion of the importance of their consistent application should be continued.

It is necessary to **initiate a long-term campaign to promote the importance of education** as the driver of economic development, social inclusion and poverty reduction, particularly bearing in mind the potential importance of having obtaining a higher level of education for vulnerable social groups. Also, it is important to promote examples of good practice and successful schools through competitions, awards and media promotion.

A particular attention could be paid to **linking schools within the same local self-government**, but also to enable, through different forms of horizontal learning, the exchange of experience of teachers concerning competencies of individualization and differentiation of teaching and assessment. Besides that, schools that participated in the project could be mentor schools or "model schools" for other schools which are just starting with the comprehensive activities on dropout prevention.

Recommendations at school level

The project was primarily engaged in the interventions on school level, and detailed guidelines on how the school can prevent dropout are summarized in the *Handbook for planning, implementing and monitoring of measures to prevent students from dropping out*. This Handbook contains **detailed instructions on how schools should approach dropout prevention, describing each step. It needs to be promoted more in schools in Serbia because it can serve as an important support for school activities aimed at preventing dropout.**

Also, the **Early warning and intervention system**, as the most complex part of the Model, was prepared in such a way that schools can easily implement it based on relevant trainings and proposed instruments and tools. What is challenging in the application of this system is to **ensure the involvement of the entire school** in preventing dropout, in order to achieve the necessary level of a shared vision and commitment. Therefore, special attention should be paid to raising awareness about the responsibility of all school staff for successful completion of the education of each student.

When a school starts the overall implementation of the Model, it is necessary **to prepare school documents** that establish and direct measures and activities to prevent dropout and incorporate them into relevant existing school documents (e.g. integration of the action plan for preventing dropout in the school development plan). An integral part of school documents should be the **tracking of data on students regarding prevention of dropout,** and **monitoring the effectiveness of the activities undertaken,** and the results of dropout prevention. Data monitored at the school level should be complementary with the data at the national level.

Although the whole school needs to be involved in these activities, **coordination of dropout prevention** should be entrusted either to a special team responsible for preventing dropout, or by assigning new responsibilities to an existing team (e.g. a team for inclusive education), or by designating a person (this is especially valid for "smaller" schools) to deal with the coordination

of dropout prevention and application of adopted plans at the school level. If a team for dropout prevention is established, each team member could be a mentor to other teachers in the school in order to more effectively involve the whole staff.

The implementation of the Instrument for identification of students at dropout risk is obligatory several times in the course of the school year. The experience of the project recommends applying the Instrument four times in the school year. This practice will empower the school staff to recognize and identify the signs of student dropout risk and specific needs of students, but also to react in the right way and in due time according to defined school procedures.

For all students identified as students at high risk of dropout **a plan for the implementation of individualized measures should be developed and its efficacy should be monitored monthly, and based on the result, it has to be revised on a regular basis** (the IPDPs used in the project should be integrated into one document with the existing IEP – see recommendations at system level). As the combinations of risk factors acting on individual students are very similar, it is possible to consider some general directives for support which can be of help for further individualization of more specific measures of support, according to the specificity and characteristics of each student. Having in mind the different united action of individual risk factors within groups, the support measures which prevent the action of individual factors might be developed more holistically and in this way they would be more sensitive in a broader context.[21]

Additional attention should be paid to building cooperation between employees of the school working in different education cycles (e.g. cooperation of teachers from the second cycle of primary education with teachers from secondary schools or with teachers from the first cycle, obtaining targeted career guidance for students at high dropout risk) so that **adequate support could be provided in the transition of students into the next education cycle.**

In addition, **the school must develop and provide an adequate response to support of those students who are absent from school for extended periods** for reasons such as labor migration of parents, illness of the student, etc. (referring primarily to the compensatory activities). Absenteeism is a powerful predictor of the dropout risk and the phenomenon of absenteeism must be promptly detected and it needs an adequate response.

It is necessary **to develop programs of extra-curricular and extra-school activities**, which would include students from vulnerable groups, especially those at high risk of dropping out, encouraging a longer stay in school (e.g. through the organization of artistic and sports sections). In particular, confidence in at-risk students should be developed.

The school cannot do everything by itself, but the school is not alone. It is important to **develop cooperation with other institutions and organizations from the local community,** particularly with those who have programs for children from vulnerable groups. The school should also initiate a dialogue with the local actors about the responsibility of all actors in prevention of dropout.

Peer support should become a resource that is fostered and strengthened by the schools, because peer support proved to be an invaluable ally in preventing dropout.

[21] Please find more details on students' support in the publication *Handbook for planning, implementing and monitoring of measures to prevent students from dropping out*

Reconceptualization of remedial teaching in schools means that schools should implement and organize remedial classes in a different way. Project experience shows that the current way of conducting remedial teaching does not fulfill its purpose. Remedial teaching is used as a mechanism for "failing" students, but it should be a mechanism for preventing failure and used for all students.

It is necessary to organize remedial teaching so that it is more flexible(e.g. it should not be scheduled for the final period (7th class), if it is known that students cannot attend, because they have no return bus connection). In line with regulations (see recommendations at system level), schools can use also new ways of implementation of remedial teaching: engaging volunteers, organizing homework clubs which can be conducted by different teachers or students, organizing of remedial teaching in a way that one subject teacher conducts remedial teaching also for those students he does not teach in regular classes, etc. It must be borne in mind that if an approach does not give results in the regular classes, it will most probably not give results in the remedial teaching either; therefore, the way, methods and forms of remedial teaching must differ from the ones used in the regular teaching where the student failed. Special attention should be paid to **sensitizing teachers to work with parents coming from vulnerable groups**, as project experience shows that teachers do not sufficiently adjust their approach in including such parents. In order for all parents to be included in an adequate way, reasons for the particular behavior of the parent must be known. For example, the alleged “lack of interest” of parents is frequently described by teachers when speaking of certain groups of parents. In most cases it turned out that it was not the question of the lack of interest for the child’s well-being, but that other obstacles prevented the parents’ to involvement (e.g. huge existential problems, lack of understanding of the importance of education for general welfare, etc.). Therefore, at the school level it is important to develop different ways of approaching certain groups of parents, and it is of particular importance to keep in mind the finding that parents more frequently get involved in the school life and activities, if they are invited directly by their children.

In addition, there is a need to develop a culture of highlighting students’ strength (not miss the chance to commend the students) in conversations with their parents, and the constant practice of visiting the families of students should be also introduced.

Students at dropout risk should be empowered before the selection of the secondary school through career guidance and counseling that should be adjusted to students from marginalized groups, and it is also necessary to improve and obtain cooperation of the whole family concerning the continuation of education.

Strengthening the capacity of staff and changing the school culture is an essential part of preventing dropout. It is important to work on raising the awareness of all employees at the school on the responsibility of the school and its undisputed role in the education of each child. Professional training is necessary for the successful prevention of dropout, but dropout can also be prevented through the teachers' work in class, especially with high-quality individualization and differentiation of instruction. On the other hand, an inclusive culture is a process in which the school must continuously participate and dropout prevention is one of its aspects. This means that the work of the school staff does not end in the classroom, but that to prevent dropout and to create an inclusive culture, it is also necessary to work during school recess, during extracurricular activities, on field trips, etc.

Developing school ethos entails avoiding practices that negatively affect the reduction of dropout rates (repeating grades, excessive disciplining of students, discrimination, etc.).

Schools should work also on connecting with other schools in various aspects (common professional training, through the exchange of experiences and good practices, establishing cooperation between the peer teams, etc.). Schools from the project can serve as a "model school" to prevent dropout, particularly those that have achieved the best results.

Recommendations at the level of local self-government

Systemic inclusion of local self-government and interventions by the local community in dropout prevention were not the focus of this project. Nevertheless, having in mind the importance of the local community and its links with the school, some recommendations refer also to the level of the local self-government.

Although the project achieved excellent results, the school cannot implement many interventions efficiently without cooperation with other institutions and organizations. Since poverty is one of the most common causes of dropout of students, and it is one of the strongest dropout risk factors, timely and adequate response of the school would be made easier by **protocols of cooperation that would provide a common understanding of the phenomenon of student dropout and the importance in solving it for the benefit of the whole community** with the representatives of the Centre for Social Work, local self-government, health centers, municipal libraries, the Red Cross, youth offices and other institutions and organizations.

As in other cases where legal solutions and possibilities exist but are not implemented consistently, the connections of the school with the local self-government can also be formal and strong in terms of fulfillment of regulations on management of schools (Art. 53-56. and other articles of the Law on the Foundations of education system[22]), but that, for example, does not address the core issues of education of certain vulnerable groups. **The program of cooperation with the local self-government can be a good starting point for the elaboration of measures at the level of local self-governments and communities aimed at preventing the dropout of students**, especially bearing in mind that the program of cooperation is compulsory and is already a statutory part of school programs in primary and secondary schools (Art. 27, 47, 58 and other articles of the Law on Primary Education[23], and Art. 11, 19 and other articles of the Law on Secondary Education[24]).

Further, the preferred **early warning and intervention system could be complementary to the databases that are operated by centers for social work**. This means that the data, in addition to their "one-way" use only for the needs of citizens (e.g. certificate of regular school attendance is required for receiving certain social benefits), could be used for other purposes. For example, at the local level data could be shared between the system of social protection and the school, so that the school could react in time in case the family of student has large existential problems, as it would for sure have an impact on the education of the student.

Given that the **provision of transportation** from home to school proved to be very important for secondary school students and a potential risk for dropping out of school, and at the same time secondary education is still not compulsory, local self-governments should be made obliged to provide transportation for secondary school students, or find another mechanism to solve the transportation problem at least for secondary school students who come from vulnerable groups. Finally, SDES 2020 provides that analyses should be made in order to

[22] *Official Gazette of RS,* no. 72/2009, 52/2011, 55/2013, 35/2015 – authentic interpretation, 68/2015 i 62/2016 – decision of CC.
[23] *Offical Gazette of RS,* no. 55/13
[24] *Offical Gazette of RS,* no. 55/13

determine the possibility and justification that as of 2020, enrollment in secondary education after primary school should be mandatory, as well as staying in secondary education up to the age of majority (in the case of secondary education has not been completed) which means that this issue is likely soon to be discussed in local self-governments.

Comprehensive resolution of involvement of adequate levels of local self-government and the entire local community in the issue of preventing dropout is forthcoming, because specific interventions of other actors who will help schools in preventing dropout need to be devised and implemented.

Appendices

Appendix 1. Criteria for the Selection of Municipalities for a Broad Sample of Schools

Municipalities are selected according to the formula for calculating the composite score (Y) after linear compression of variables in which a municipality that has the lowest value on the criterion (variables) gets the value 0 and the maximum value on the criterion, value 1. Thus transformed criteria gets weights according to the formula:

$$\mathbf{Y=0.3*a_1 + 0.3*a_2 + 0.1*a_3 + 0.1*a_4 + 0.1*a_5 + 0.1*a_6}$$

Municipal Development Index (a1). This index contains: 1. The material aspect of the index which covers the total consumption at the municipal level (household expenses, municipal charges and energy consumption). The material part of the index approximates the risks of ESL because it indicates the general economic situation in the municipality. 2. Social aspect of the development index which consists of the part relating to education and healthcare. It indicates the number of medical staff per 1,000 inhabitants, the rate of infant mortality and level of education of the population.

Percentage of Roma in the municipality (a_2). Poverty is one of the main reasons for dropping out, but the Roma population at greatest extent does not complete primary and secondary education. They live in the situation of the deepest poverty and dropout happens to children from Roma families with the highest probability. According to the data of MICS (Multiple Indicator Cluster Survey) for 2010, on a sample of 1711 Roma families, the father in 68.3% of cases has primary education, in 23.1% cases has secondary and only 1% has higher education and 7.6% of fathers have not completed any school (MICS, 2011).

The number of students aged from 0 to 17 in the municipality (a_3) and the number of primary and secondary schools (a_6). This variable is taken as a part of the composite index for the selection of municipalities because there are findings that early childhood development has a very positive influence on later outcomes, whether they are viewed in the context of skills, competencies, income, and number of synapses or other positive social outcomes (Heckman, 2000; 2008).

Coverage by preschool education of children aged 0 to 6 (a_5). It indicates in which extent parents are informed about the existing resources for education of their children, because this measure is obligatory, and points to evaluation of education by the family.

Coverage by preparatory preschool program (a_4) – it indicates in which extent parents are informed about the existing resources of the education of their children, because this measure is obligatory, as well as level of valuation of education.

Appendix 2. Baseline Study in Schools: Specificities of the Schools, Size of the Schools and Structure of Students

In this chapter the specifity of the schools will be presented in short: number of students, teachers and classes, ratio of number of teachers to the number of students, as well as the gender structure of students in the pilot schools. At the beginning a short description of schools will be given and a presentation of their main characteristics. In the end, the structure of students will be presented which demonstrates that those schools were selected that have an increased dropout risk. These are data on the percentage of students refugees and internally displaced persons, on percentage of students travellers and users of social assistance, data on students coming from incomplete and foster families and number of students who have individual education plans (IEP).

Agricultural and Chemistry School „Dr Đorđe Radić" from Kraljevo is a very well equipped school (two IT cabinets, internet available to everyone, LCD television sets in the classrooms, the Students' Parliament has a laptop and they use it, large library) and the school has a mini-bakery and a mini dairy which make practical teaching easier and are used for preparing food for students. A part of the teachers use e-diary. A lot of students continues education and enrolls faculties. In the local community the school is accepted as a very successful school.

Technical School from Vladičin Han is located in the same building with the Gymnasium. School is very poorly equipped and many poor students attend it. A large number of students come from families in which both parents lost their jobs, and general poverty impedes the functioning of the school. Teachers waive a portion of their income to provide school transportation for students and textbooks.

In the Polytechnic School in Kragujevac there is violence. This school enrolled weaker and poorer students who are not able to enroll in another school (according to the prevailing perception in the community). At school there are, in the context of future employment, educational profiles that are more attractive (focused on ICT competencies - e.g. machine technician for computer designing) and less promising educational profiles (driver of the vehicle, technician of road traffic). The school has good cooperation with the company Fiat and other private companies providing apprentiechip and future employment of students from certain profiles.

Technical School "23. maj" from Pančevo has a young teachers. School is relatively well equipped (computer cabinets, bakery, laboratories, hairdressers, etc.). School is intensively engaged in cooperation with the local community to strengthen the well-being of students and with the Police Administration Pančevo at combating the risks of distribution and availability of psychoactive substances in the part of town where the school is located.

The Secondary Vocational School "4. juli" from Vrbas has 10 educational profiles from four sectors. The school used to educate staff for the neighboring factories whose capacity is significantly reduced in the privatization and currently employs fewer workers and are not focused on the local community. The teaching team is much younger than it used to be and lately in the local community it is considered that the school raised the quality of teaching. This secondary school is enrolled also by students with disabilities and one year they attend classes in the so called "observational classes" ("zero" one, "zero" two, etc.) where teaching is based on observation of students' tendency so that after the completion of the "observation year" they could be directed to one of the four three year profiles offered by the school to students with

disabilities.[25] If they decide not to continue their education, these students, after the observation year, receive a diploma of manipulator in food production or manipulator in metal processing.

The Trade and Hospitality school "Toza Dragović " from Kragujevac is a not well equipped school, which negatively affects the performance of practical training. The school is in financial trouble, there are difficulties to provide heating and basic working conditions. Through intensive cooperation with the institutions of the local community and cooperation with non-governmental organizations, the school tries to improve the position of students in the school.

Primary school "Branko Radičević" from Vladičin Han has a long tradition and has a very important place in the local community. The fact that a large number of students from vulnerable groups enroll school, it encouraged the school to participate in projects that aim to promote inclusive education, as well as to find ways to improve cooperation with the local community. The school has three detached classes. Extreme poverty of the local community hinders the educational process.

Primary school "Ljupče Španac" from Bela Palanka is the only school in the municipality. Roma unhygienic settlement is next to the school yard. The vast majority of teachers travel to school from Niš. The infrastructure of the school is much neglected and the school is very poorly equipped. The school has already taken part in several projects related to the strengthening of students from deprived backgrounds.

Primary school "Jovan Jovanović Zmaj" from Surdulica represents an educational institution with the longest tradition in Surdulica, older teachers generally teach in this school as opposed to other primary schools in which there are mostly younger teachers. The school is distinguished by a number of humanitarian and extracurricular activities organized by it as well as by participation in various projects. The school has an outpost of younger grades in the nearby village (Masurica).

Primary School "Bratstvo jedinstvo" from Vrbas works in a small community, which positively affects the good and close relations between children and teachers. The school has nine special classes, and this is the result of the merging of a special school with this primary school. The school has participated in projects aimed to improve the inclusiveness of school. The school works closely with the local community in numerous activities.

As for the size of the school, the average size of primary schools in Serbia amounts to 511 students when the primary school as referring only to the parent department (SORS, 2014). The average size of secondary schools in Serbia amounts to 546 students on the same basis. Comparing the size of the pilot schools to the above data, we can conclude that the majority of schools (6) are of medium size (between 400 and 800 students) as shown in Table 12. As a very large school can be characterized the Polytechnic School in Kragujevac with 1468 students, while as small schools can be characterized Primary school "Bratstvo jedinstvo" from Vrbas (237 students) and Technical school from Vladičin Han (325 students).

[25] In agreement of the project partners, the “special” classes enrolled by students with development disorders will not be in the focus of this project.

School	Total number of teachers	Total number of classes	Number of students
Polytechnic School, Kragujevac	142	62	1468
Technical School "23. maj", Pančevo	85	36	875
Trade and Hospitality school "Toza Dragović", Kragujevac	77	34	793
Secondary Vocational School "4. juli", Vrbas	90	40	746
Agricultural and Chemistry School "Dr Đorđe Radić", Kraljevo	71	26	743
Primary School "Ljupče Španac", Bela Palanka	51	35	722
Primary School "Branko Radičević", Vladičin Han	51	32	665
Primary School "Jovan Jovanović Zmaj", Surdulica	44	27	564
Technical School, Vladičin Han	51	15	325
Primary School "Bratstvo jedinstvo", Vrbas	35	19	237

Table 12. Total number of students, teachers and classes in the pilot schools

Studies indicate that the optimal size of a school has a positive effect on the students' achievement (from 600 to 800 students per school) which is not the case when speaking of extremely large or extremely small schools (Hattie, 2009). Small schools are often very specific in the population of students attending the school, and the efficacy of managing can be different due to informal relationships and established school climate. Often the outside support of these schools is denied due to the fact that investments are allocated to a small number of students. On the other hand, very large schools are encountering difficulties in the coordination and management because it is necessary to make greater efforts to manage them than in schools of optimal size. Often, the absolute number of students who come from vulnerable groups in these schools is higher because of the absolute size of the school. So, although for technical school "23. maj" from Pančevo, THS "Toza Dragović" from Kragujevac and SVS "4. juli" from Vrbas it could be said that they belong to the larger schools by number of students, only for the Polytechnic School in Kragujevac the size of the school is one of the characteristics that may affect the implementation of Dropout Prevention Model, because this school is very large. It should also be borne in mind when implementing the model and interpretation of the final results that the primary school in Vrbas is very small. In all these cases the size of the school does not have to be something that necessarily reflects the success of the implementation of the model, but it can have an impact and the number of students should be taken into account when interpreting the results on the effectiveness of the model.

The ratio of pupils per teacher and the number of students per class is not proportional between schools. A large number of students per class often does not mean a large number of students per teacher. For example, in a school that has the most students per class, ACS "Dr Đorđe Radić" from Kraljevo, although the average number of students per class in this school is 28.56, in this school there are 10.56 students per teacher, which is the case also with other vocational schools with fewer students per class.

The less number of students per teacher have the two smallest schools, PS "Bratstvo jedinstvo" from Vrbas and Technical School from Vladičin Han – less than 7 students per teacher. Although it is the largest school in the sample, Polytechnic School from Kragujevac has not got more students per class (23.68 students per class) or the most students per teacher (10.34 per

teacher). There are somewhat more students per teacher in medium sized primary schools – PS "Jovan Jovanović Zmaj" from Surdulica, PS "Branko Radičević" from Vladičin Han and PS "Ljupče Španac" from Bela Palanka (12, 13 and 14 students per teacher).

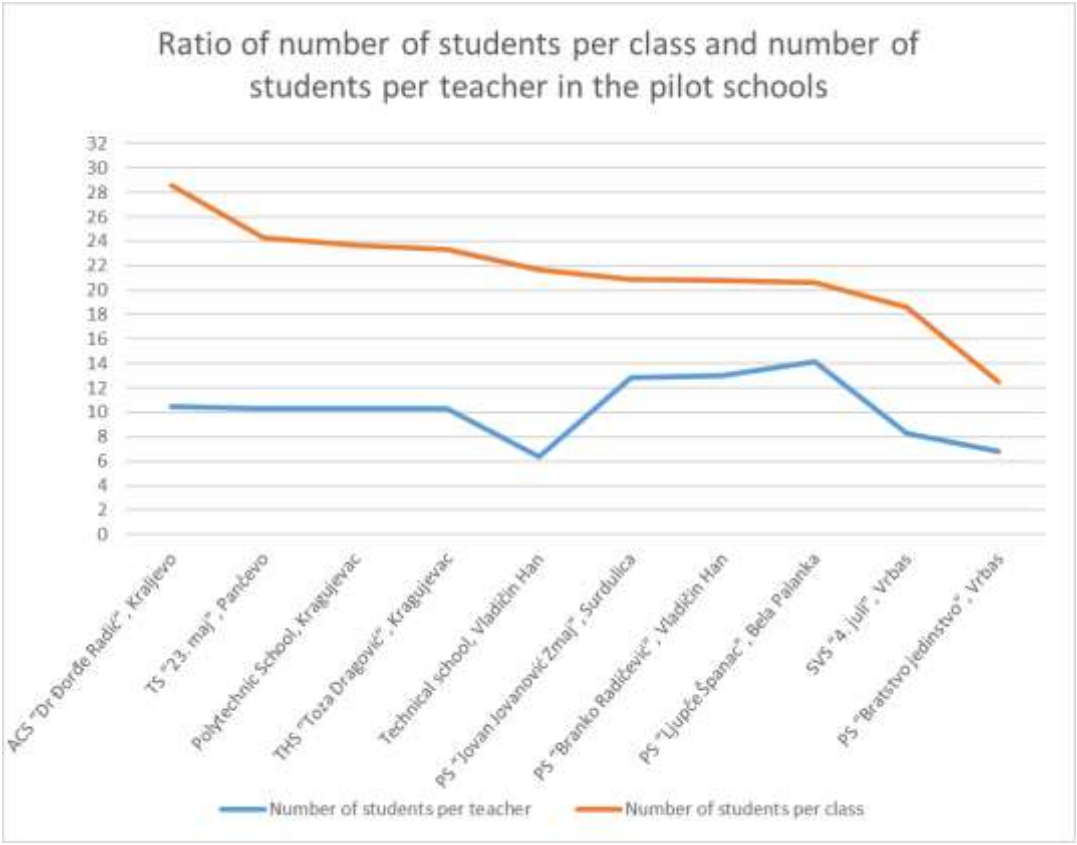


Chart 24. Ratio of number of students per class and number of students per teacher in the pilot schools

Out of the four, in three secondary vocational schools the gender structure is not uniform, while only in the ACS "Dr Đorđe Radić" from Kraljevo, there is a balance between the number of male and female students. The gender structure is balanced in three primary schools in the sample, but not equal in the primary school in Vrbas, where there are more male students (58%). Technical school from Pančevo enrolls more female students (63%), as well as the THS "Toza Dragović" from Kragujevac (61% female students), while in Kragujevac in the Polytechnic School enroll more male students (71%), as well as in the Technical School from Vladičin Han (64%). This can be attributed to the varying range of educational profiles that secondary vocational schools offer, e.g. occupations that are still considered traditionally "female professions" or "male professions". Chemical, pharmaceutical, agricultural and food profiles attract a large number of female students while mechanical, engineering and technical profiles attract more male students (Chart 25).

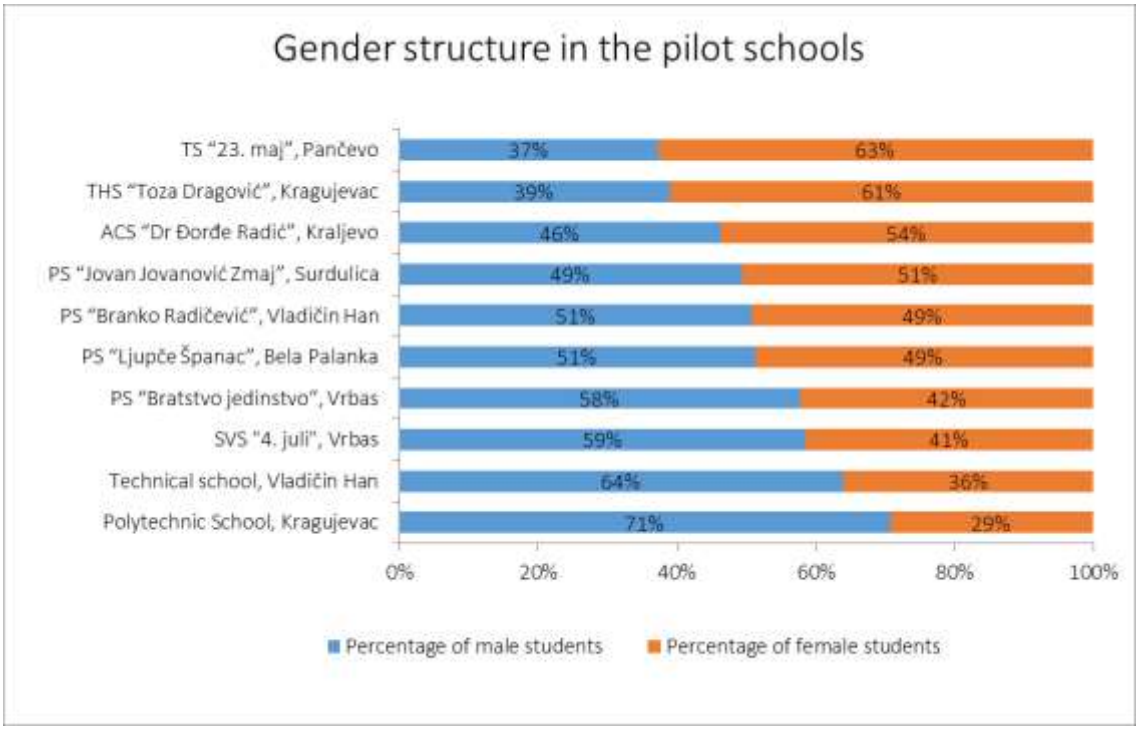


Chart 25. Gender structure of students in the pilot schools

As for the specifities of students belonging to groups that are at greater risk of dropping out, some schools are distinguished by a greater percentage of these students. Primary school from Bela Palanka, as a municipality with a very high percentage of Roma population and the only school in this city, has an expected high percentage of Roma students (36%). A high percentage of Roma students have the primary school from Surdulica (27%) and primary school from Vladičin Han, which are also municipalities with a higher proportion of the Roma population. Primary School "Bratstvo jedinstvo" from Vrbas has the lowest proportion of Roma students from all primary schools in the sample (10%) as shown in Chart 26, but this school is special because of its multi-ethnic environment (Serbian, Montenegrin and Hungarian). Although this school has the lowest number of Roma in its population, it is still 5 times higher than in the general population[26].

Kragujevac and Kraljevo are cities that accepted a large number of internally displaced persons so it can be expected that the schools from this region have a larger number of students from internally displaced families. It is the case first of all in the Polytechnic School in Kragujevac (31% of students are internally displaced) and ACS "Dr Đorđe Radić" from Kraljevo (17%). It is less present in the THS "Toza Dragović" from Kragujevac which has 3% of students from internally displaced families (Chart 26). The secondary vocational schools from Vrbas and Pančevo have less percentage of internally displaced students (1%).

Besides the large number of internally displaced students, the Polytechnic School from Kragujevac is distinguished also by a large number of Roma students.

[26] According to the census from 2011, the share of Roma in the population is slightly over 2% (Census of population, households and apartments in 2011. In Serbia, Ethnicity, Statistical Office of the Republic of Serbia, 2013).

Also these characteristics of schools should be kept in mind when interpreting the final results which will show the effectiveness of the implementation of the Dropout Prevention Model.

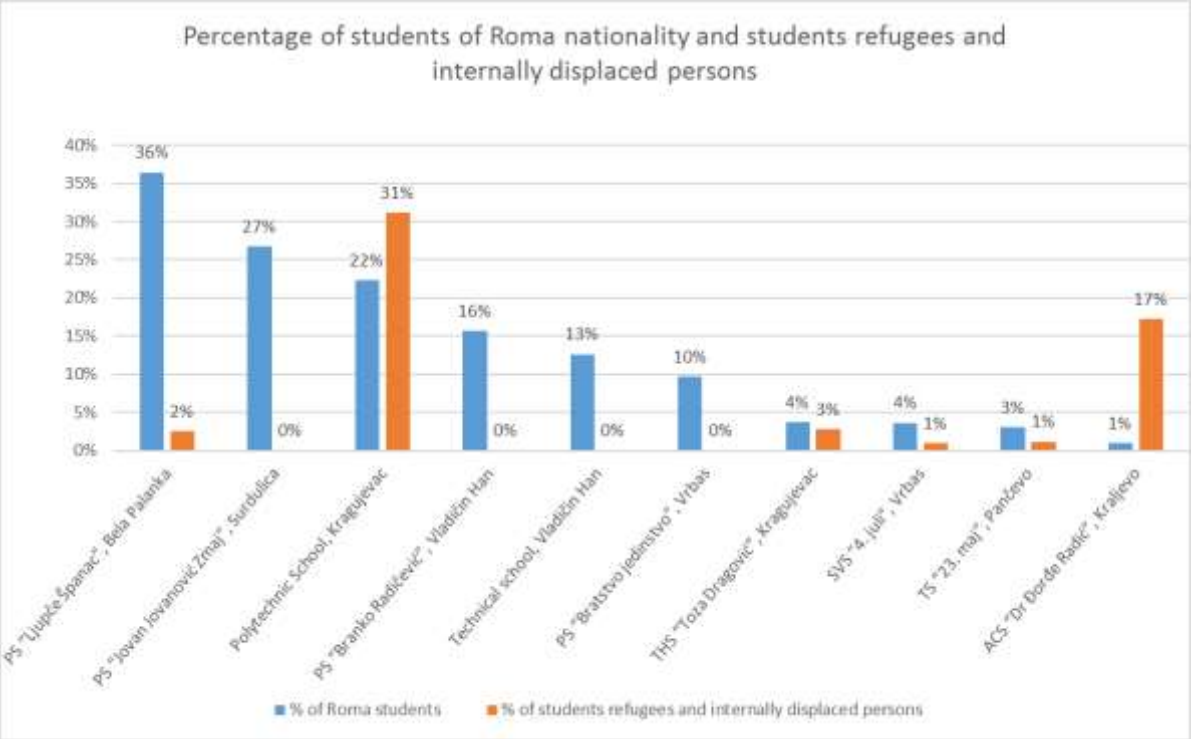


Chart 26. Percentage of students of Roma nationality and students refugees and internally displaced persons in the school

When we look at the data that speak about the percentage of students who come from families that use some form of social assistance, this percentage is not dramatically high except in the ACS "Dr Đorđe Radić" from Kraljevo (4%). In all other schools this percentage is very high, and in the TS Vladičin Han, this percentage is as high as 64%. Half of the students from Bela Palanka use some form of social assistance, while the percentage of those students in primary schools in Surdulica and Vladičin Han is nearly the half.

Students travellers are well represented in secondary vocational schools - this percentage is extremely high in all secondary vocational schools (the majority of the population of students are students who travel longer than 4 km one way from home to school[27] ') while in secondary vocational school from Vrbas, this percentage is lower compared to other vocational schools in the sample (20%). This can be explained by the fact that the network of vocational schools is a less branched network than that of primary schools, as well as, probably, in many cases, secondary vocational schools are attended by students from surrounding cities as well as from rural and suburban areas. THS "Toza Dragović" from Kragujevac is attended by 82% of students travellers, TS "23. maj" from Pančevo is attended by 72% of students travellers, ACS “Dr Đorđe Radić" Kraljevo is attended by 72% of students travellers and the Polytechnic School from Kraljevo is attended by 51% of students travellers (Chart 27).

[27] Given that secondary school is not mandatory, the municipalities are not obliged, although there are many of them who do that, to finance and provide transportation to students travellers to and from school for more than 4 km, as opposed to primary schools where municipalities are required by law to provide transportation to students travellers.

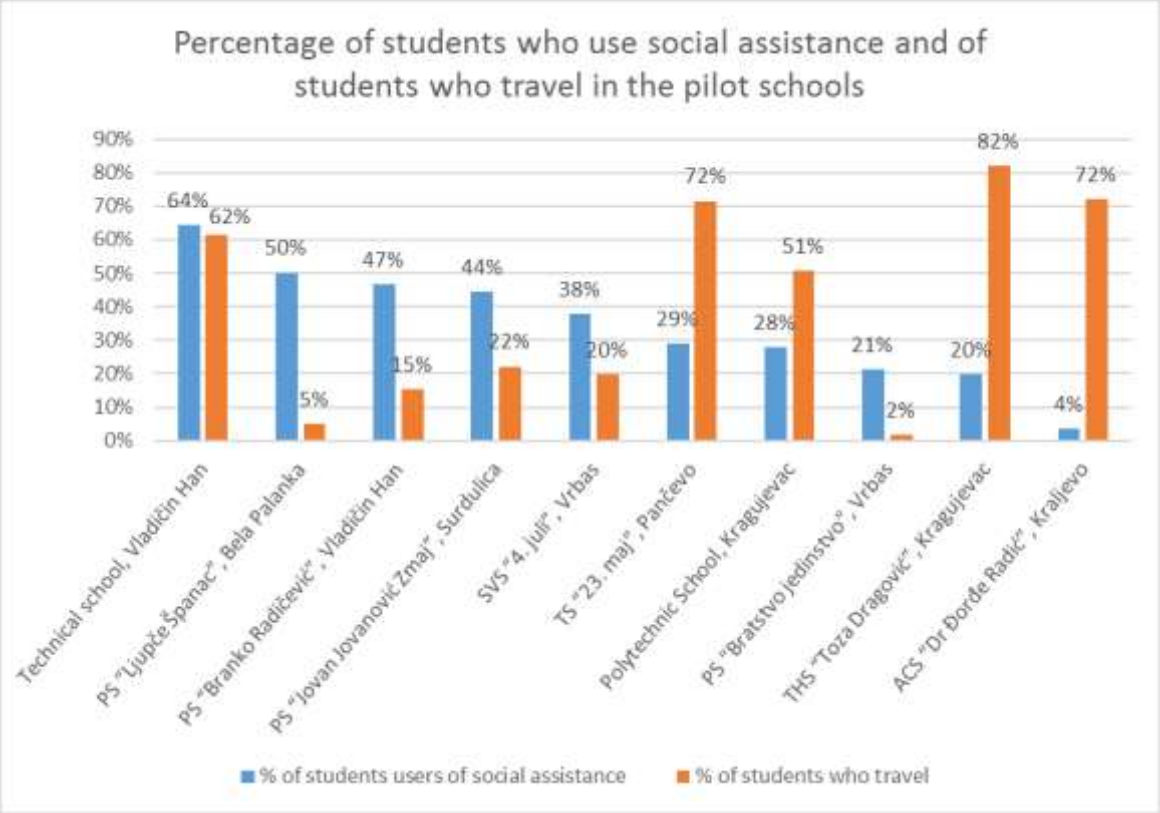


Chart 27. Percentage of students who use social assistance and of students who travel in the pilot schools

In Serbia, according to the census of 2011, the proportion of single-parent families in the total number of families is 17.3% (SORS, 2013c). Of the total number of single-parent families, 79% of these families make mothers with children. Schools in the sample do not differ significantly from the average per share of incomplete families among the school population of students. In schools in small communities, the proportion of incomplete families is smaller, which follows the geographical trend that divorces are less common in smaller demographic areas.

In addition to being distinguished by its size and high number of Roma students and students of internally displaced persons, the Polytechnic School from Kragujevac is a school that has the highest proportion of students who come from incomplete families (21%).

Also, about one-fifth of students from incomplete families have the both schools from Vrbas, vocational school from Pančevo and THS "Toza Dragović" from Kragujevac.

Unlike other primary school, the primary school "Bratstvo jedinstvo" from Vrbas has a higher percentage of students from incomplete families (21%). A higher proportion of students from incomplete families attend secondary vocational schools than it is the case with primary schools. It is likely that these are economic reasons that make students from incomplete families to enter a school which will lead to employment opportunities in a short term.

In comparison to other schools, the secondary school from Vrbas has the largest percentage of students living in foster families and/or do not have parents (3%) (Chart 28).

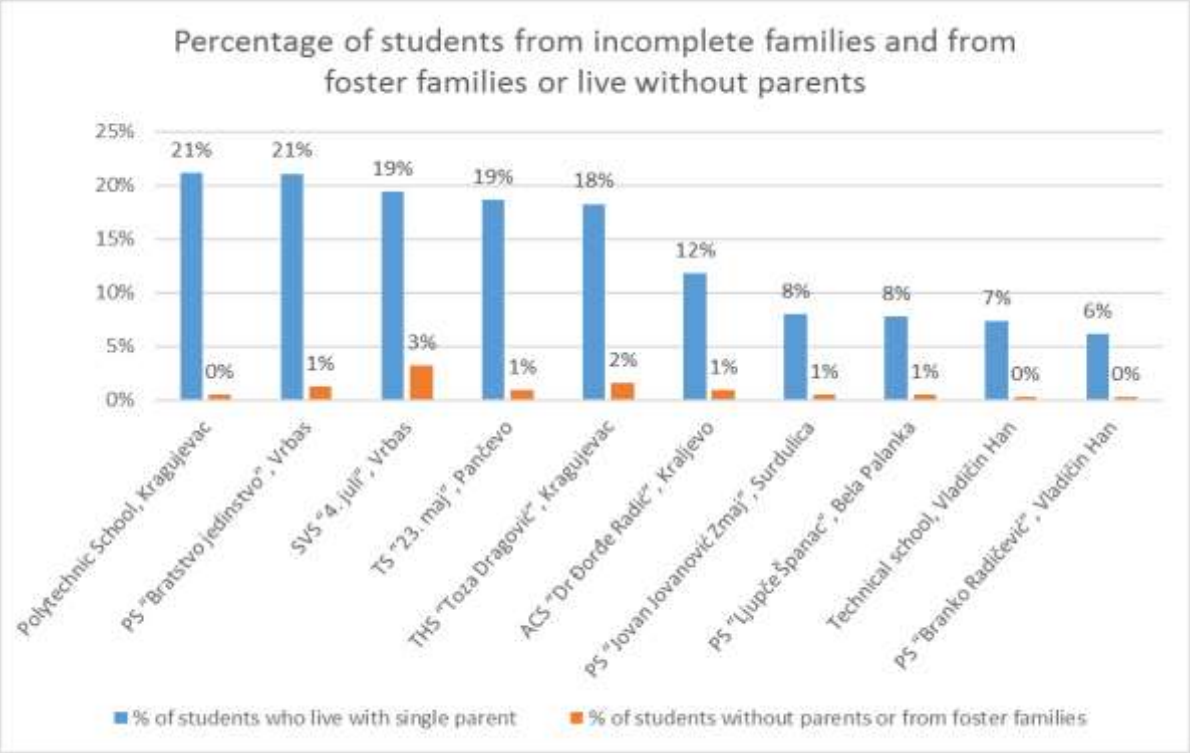


Chart 28. Percentage of students from incomplete families and from foster families or live without parents

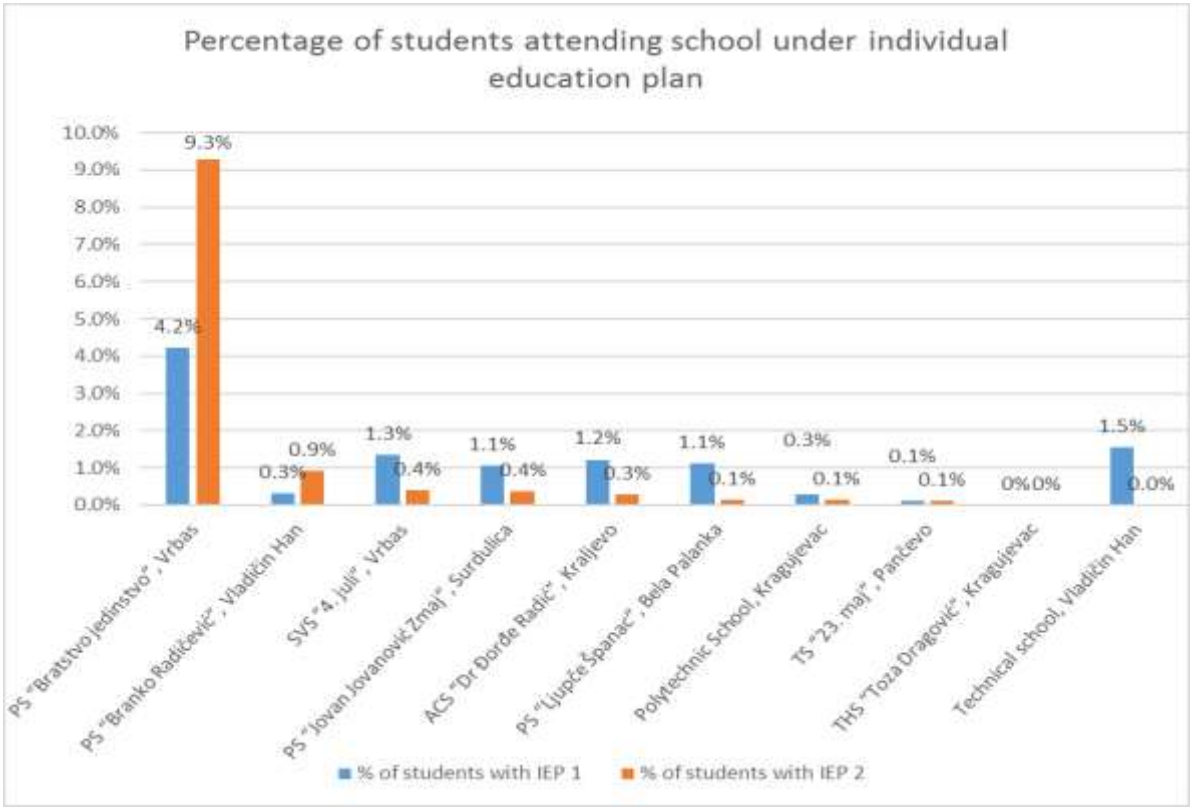


Chart 29. Percentage of students attending school under individual education plan (IEP1 and IEP2) in the pilot schools

Data show that in the primary school "Bratstvo jedinstvo" from Vrbas there are many more students with individual educational plan with adjusted programs without modified achievement standards (IEP 1) and Individualized Education plan with modified program with modified achievement standards (IEP 2) than it can be expected on the basis of the incidence of certain disorders and disabilities in a population of students. This school has 4.4% of the students with the IEP 1 and even 9.3% of the students with the IEP 2. The reason is that this primary school has seven special classes as a result of the merger with the local special school. The percentages of students who attend classes with IEP in other schools do not deviate from the expected incidence of certain disorders and disabilities in a population of students[28].

[28] It is very difficult to give precise incidence and prevalence of developmental disorders because they depend on the way of classification and diagnosis (e.g. DSM versus ICD classification). According to ICD-10 (International Classification of Diseases and Related Health Problems - http://apps.who.int/classifications/icd10/browse/), which is used in England, in categories from F70 to F89, in which almost all students attending regular schooling have a need for individualized teaching, 2.46% of girls and 4% of pupils at the age of 7 to 15 years have easier learning disabilities, while 0.4% of girls and 0.6% of boys have expressed learning disabilities (Emerson et al, 2011). On the other hand, in the USA, where the DSM classification is used, according to various surveys, around 5% of students are in need of intensive additional support in education due to expressed learning disabilities (Pierangelo and Giuliani, 2005).

Appendix 3. Summary Analysis of the Responses From Focus Groups in Schools

In this paper are briefly given, on the basis of detailed qualitative analysis, surveys of key aspects of school life for each school, which are important for the successful implementation of the model. Brief descriptions represent the conclusions of the comparative analysis of narratives of students, parents and school staff, and qualitative data collected during the first focus group (for the Baseline Study) and final focus group (for the Endline Study). All conclusions, therefore, are multiple and complex picture of what is going on in schools and do not have the ambition to provide a unique and objective judgment, but to approach the atmosphere of the school, trying to describe in the shortest form the school life and converge the perspective of the participants.

Also, although it is very difficult to reach an objective frame of reference, which in this way can evaluate different aspects of school functioning in different schools, the frame which is in the form of tables at the end of the progress in schools is not trying to be objective, but to provide some help in understanding the changes that were made (or were not) in the pilot schools and be of value in the analysis of information about the application of the Dropout Prevention Model in different schools and different analysis of the results achieved by the schools.

Despite of not being entirely able and that it is not standard procedure to generalize the results of a qualitative analysis, because the goal of every qualitative research is to assist in reaching a detailed description and a deeper understanding of the phenomenon being studied, for clarity and easier implementation of performance assessment of the Model in different schools, each aspect in each school is marked by the color which indicates the range - from deterioration (red), unchanged status (orange), a small improvement (light green) and to significant improvement (dark green) - (Table 13).

ACS “Dr Đorđe Radić”, Kraljevo

The sense of well-being of students at the school. Compared to the situation before the start of the project when there were indications that in the lower grades there was bullying, today none of the tested groups report about it. Sporadic cases are successfully resolved at the level of school management and professional services, which is reported by all stakeholders, especially by parents and students. Everyone agrees that in the school there is a very good atmosphere among the teachers and the school management. The sense of well-being of students in school is more than satisfactory.

High expectations of teachers from all students. There is a progress when it comes to teachers' beliefs that all students can achieve high performance. A group of teachers who two years ago loudly argued that the students' progress is limited to their prior knowledge, abilities and circumstances in which they learn, today more attention is paid to the activities which neutralize the negative impact of conditions for those pupils coming from deprived backgrounds.

The quality of teaching, assessment, additional support. There is a great sensitivity of teachers to the specifities of students and additional support works very well in school, but there is still the desire of teachers to improve their competency to provide additional support. The school had high expectations of the project in relation to the capacity building of teachers by providing specific guidelines, steps and solutions. As the project was not designed in that way, teachers "were left without solutions to major challenges ", it seems that the teachers estimated that the benefit from the project was small. Their dissatisfaction with the failure to retain few students in school determined the atmosphere in which the whole focus group was held. On the other hand, teachers have pointed out that the mechanisms, knowledge and tools that have been adopted through the project were especially

important in working with students at risk, who are in the first or second grade and whose motivation for education has not completely dropped.

The school kept the practice of approach to parents that involves intense contact; practices of assessment are improved although it still dominates the summative assessment, but the impression is that the number of opportunities provided to students to meet and improve assessment increased and thus the teachers were able to reduce the anxiety of students.

Remedial teaching. Organizing remedial teaching is still very difficult, given the fact that a large number of students live in city areas or in neighborhoods outside the city where transportation is not easy to organize and is not always available. Remedial teaching is usually organized to determine the material or to clarify what is unclear, usually before control tests. The overall impression from the statements of students is that students who attend remedial classes are not stigmatized and it is increasing the number of successful students coming to remedial courses who would like to learn for the highest score. Parents see remedial teaching as a useful resource, but are not familiar with how it looks like, neither can judge its quality. Teachers' expectations of the project in terms of capacity building for remedial classes are not filled because they expected concrete steps and instructions on what to do in a certain situation which was not envisaged by goals of these workshops. In this sense, the general impression is that the additional improvement of teaching in accordance with the flexible model (elaborated in two workshops) did not further work.

Practices to prevent dropout. The school in all ways, primarily through interviews with students and parents, tries to keep students in school - this situation was at the beginning of the project. At the end of the project, teachers say that the project somewhat legitimized procedures that have been applied in order to prevent dropout. They say that all students identified through the EWIS as students at risk are precisely those whom they themselves identified as students who need support to stay in school. These activities were mainly performed by the director and the professional service. Teachers seek support from peers, mostly in the field of learning support (during or outside of the teaching time), and for doing homework. Also, students are generally familiar with the project and with the phenomenon of dropout. Some of the students are engaged in peer team and they also have an important role in the communication between teachers and students - e.g. while enabling additional opportunities to reply, correction of marks, etc.

Involving parents. Teachers put much more effort into co-operation with parents during the project than before, however, are not too happy with the results, as not all parents equally cooperated.

Involving peers. Students' Parliament still has a very strong influence on different aspects of the school (the arrangement, the organization of teaching and practice, codes of conduct). It operates autonomously and the school allocated funds to it. Since the establishment, for the duration of the project, the peer team has become stronger that actively works to improve the atmosphere of the school, the relationship between students and the relationship between students and teachers. Peer team communicates with students through workshops, presentations and social networks, so students can choose when and how to contact the peer team. Members of the peer team already prepare students who will replace peer mentors when they complete their education, which is another indicator of the seriousness of these initiatives within the school.

Cooperation with the local community. In contrast to the initial state when co-operation with the local community was reduced to performing professional practice in enterprises, today all groups of respondents report on cooperation with many other local institutions and organizations, and in particular point out the great reputation of the school in the local community.

Technical School, Vladičin Han

The sense of well-being of students at the school. Students in the school generally feel good and accepted and unanimously declare that the atmosphere among students and between students and teachers is positive, although it is noticeable that the deep poverty in the municipality negatively affects the sense of well-being of students at the school. Discrimination on ethnic grounds on which all participants reported two years ago, and frequent violence within the school, is not pointed out any more by any of the tested participant.

High expectations of teachers for all students. Unlike the first focus group, during which students told that some teachers were more strict for the poor students, the impression is that the teachers have recently changed and have more understanding for all students. Teachers continue to believe that all students cannot achieve high achievement, but they all believe that students can progress with hard work and investment.

The quality of teaching, assessment, additional support. The quality of teaching varies widely. Somewhere teaching is reduced to dictating, and somewhere there is developed as an additional support and teachers in these cases extensively individualize instruction so that the students can catch up for they have lost. Assessment continued to suffer from low evaluation criteria.

Remedial teaching. Remedial teaching is open for all, but based on the form of work, method and content does not differ from a regular class. Sometimes it is used for additional testing. There is no stigmatization of those who attend remedial teaching and are not considered that they failed, but it is usually attended by students who want higher grade, and this additional support is treated positively both by students and teachers. The problem with attending remedial teaching by student travellers still exists. No transportation is provided for all local places. Students find that teachers are more devoted to students at remedial teaching, and responses of some teachers indicate that teachers are still of the opinion that remedial teaching is first of all for students who failed.

Practices to prevent dropout. Teachers achieved a great progress in the understanding of inclusive education and the essence of the measures it envisages. All agreed that the project raised awareness throughout the collective on the necessity of keeping students in school and that, accordingly, the school implements adequate practices that they believe will be implemented also upon completion of the project. Students, teachers, and parents are particularly pleased with the work of pedagogical-psychological services concerning dropout prevention.

Involving parents. At the beginning of the project the involvement of parents was worrying bad and in this aspect slight progress can be seen. However, in addition to today's parents praise that the cooperation with the school has improved, they do not know how they could get involved in school life, and in general they would respond to the call to engage themselves in different activities.

Involving peers. The Students' Parliament is active and in comparison to the period from two years ago there is the impression that it works more intensively although it still does not have any influence on decision making at school level. All respondents know that in the past six months a peer team is also active. Members of the peer team are representatives of all grades of the school, they are selected based on being good students, motivated and "are not afraid when they are listened to by other students'. They provide support to learning to peers from their class and all participants at the focus group admit that this was a good practice. The peer students team has organized different activities aiming at violence reduction in the school, it linked to the Youth Office, they visited the Technical Fair in Belgrade, developed a presentation of the school on the youtube, etc. In fact this team supports its peers in facing various challenges. The students are very satisfied that the peer team has its premises in the school where they can learn and work.

Cooperation with the local community. The cooperation with the local self government was good also in the past, but it has even improved having in mind that the mayor is member of the DPT. The cooperation with the Centre for Social Work continues to be poor, the school does not get any reply, if they approach the Centre. In the previous period the cooperation with the cultural centre has been intensified as within the project of a joint play with the other school from Vladičin Han, PS „Branko Radičević", which is also a participant of this project, was organized. The Youth Office encourages youth activism and has a close cooperation with the school.

Polytechnic School, Kragujevac

The sense of well-being of students in the school. Parents are of the opinion that all students feel good in the school, but that always there are situations that some students do not feel welcome and damage the atmosphere in the school, but progress has been recognized concerning the relationship of teachers towards students; parents interpret that this is the result of increased participation of the school in various projects where teachers attended various trainings. In comparison to the period of two years ago, students have changed their opinion and today they do not find that in the relationship of teachers with students those from "higher" socio-economic status are favored by them (in assessment and excusing absence). Teachers fully agree that students feel good in the school and find that the implementation of IPDPs has a great contribution to improving the sense of well-being of students in the school.

High expectance of teachers of all students. Students are of the opinion that teachers do not pay the same attention to each student, they work more with students having better marks, but find that there is no difference in the teachers' behavior with students of lower socio-economic status. This is a difference compared to the Baseline Study where students highlighted that teachers are more indulgent with students coming from richer families. Some teachers still have a more disdaining attitude towards students attending three year profiles.

The quality of teaching, assessment, remedial teaching. Students, in contrast to the results of the first focus group, when they gave explicitly negative responses about the quality of teaching, now claim that the quality of education depends on the teachers - there are good and bad examples. During the first focus group meetings parents did not have any opinion about the teaching quality in the school. Now parents are satisfied with teaching and they know about the practice of individualized teaching, but they do not know what is an IEP or IPDP. The parent who is the president of the Parents' Council is of the opinion that based on discussions with other parents, the teaching has improved recently and finds that this is the result of the projects that are implemented in the school and the trainings the teachers attended. It is the impression that the school has progressed in comparison to the situation at the start of the project, but that the size of the school and the large number of teachers, and as a result of it, the differences in teaching practice and that not all teachers can be trained and be included in the project activities at the same time, is still a challenge that additionally make it impossible to assess the results and effects of the project. At the same time and for the same reason, it is hard to generalize results in the field of the quality of teaching and additional support, so it can be heard that some teachers do their best and intensively and continuously include students into various extracurricular activities, while other teachers still ignore them as active subjects of teaching and their teaching is based on old-fashioned methods (on dictating only, for example).

Remedial teaching. What is the change from the first results of the focus groups is that parents now believe that students who go to remedial classes are not labeled as students who failed, and students have much less negative attitude towards remedial classes. The teachers of this school are much more focused on improving the quality of remedial education, as opposed to the previous period when they were focused on criticism regarding the organization of remedial classes. Teachers point out that the

school has still a large number of students travellers and that this is a problem in the proper organization of remedial teaching.

Practices to prevent dropout. Unlike numerous examples of dropout students listed during the focus groups at the beginning of the project, it is now noticeable that neither teachers nor parents nor students can provide concrete examples of when a student left the school, which can be interpreted in that number of dropout cases significantly reduced, as shown by the data of the quantitative part of the study. Also, it seems that the students are now more informed about the involvement of the school when it comes to preventing dropout, since in the Baseline Study was no clear recognition of the dropout factor by students nor were they able to name examples of activities performed by the school aimed at preventing dropout.

Some teachers have improved their skills and abilities for recognizing needs of students as well as for understanding the factors acting on dropout of students. Teachers also indicate that due to less number of students attending secondary vocational schools, they "have to fight" for each student. This illustrates that teachers fully respect the social and educational context in which the school lives and works.

The impression is that the school has changed the discourse in which it used to function, and that change is noticeable in the whole school. It also increased the awareness of teachers about their role concerning dropout.

Involving parents. Unlike the previous assessment in which it was seen a not very positive attitude towards cooperation with the parents, as well as with the Parents' Council, now the impression is rather different and more positive, and it can be concluded that the Parents' Council is very involved and informed about school work. Teachers mention as a specific example of positive practice when the professional service develops a document that contains measures aimed at reducing student absenteeism from school. This document is signed by the parent and the school, so in this regard it is mentioned as an example of good cooperation with parents.

Involving peers. Comparing the situation with the situation before the start of the project, the impression is that parents are more informed about the activities of students, and they are in particularly interested in and informed about extracurricular activities performed by the peer team – education, alumni club, etc. Unlike the first focus groups, it is the impression that now students are more aware of their own importance in support activities to peers, and they highlight that their possibilities to participate in the school life have increased. Teachers agree that students are active; decisions made by the students' parliament are respected. One of the examples for it is the decision to extend the school break so that all students could go to the bakery as this used to be a reason for being late at classes.

Cooperation with the local community. Unlike the previous assessment of the Baseline Study, when parents were focused on activities concerning employment possibilities of students, now various examples are mentioned that are beyond the practice of the school in the field of including students into the labor market – besides companies that are "friends of the school", the school has extensive cooperation with various institutions – sport clubs and cultural institutions. The local community is included in school activities by the project of Business center, this being also something new in comparison with the results of the first focus groups. Thanks to a new profile introduced into this school, cooperation has been established with relevant schools from Slovenia – exchange of students is organized and it is also supported by the local self government. The cooperation with the Red Cross and Institute for Health Protection is also example of good practice of this school. However, cooperation with the Center for Social Work must be improved.

TS "23. maj", Pančevo

The sense of well-being of students at the school. In contrast to the findings of the first focus group when parents opinion about openness and acceptance of students in the school varied a lot, now they feel that the atmosphere is good and positive. What was a surprise compared to the first focus group is that students generally give negative answer to the question whether every student feels welcome, while in the study of the present state they said that all students feel accepted, and this is a finding that is likely to be interpreted so that now students are far more sensitive to identify violence and related phenomena that distort the sense of well-being and that they are more open to talking about it. However, great progress has been made when it comes to a sense of security - now they confirm that all students feel safe at school, while in the study of the present state they expressly stated that they do not feel safe in school and that some of them verbally and physically assaulted other students, which is not the case anymore. Teachers, unlike estimates from two years ago that in the school there was an apathy among students, now think that students feel positive, relaxed, safe in school that there is a positive atmosphere and that communication and atmosphere between teachers is good.

High expectations of teachers for all students. Students and parents are of the opinion that not *all*, but some teachers consider that all students can make a progress. This was the opinion that existed also in the Baseline Study, where students talked about that only some teachers had high expectations for students. Students also state that teachers do not adapt to individual needs of students, that they pay more attention to the best students. Therefore, there are no changes concerning teachers' expectations for students.

The quality of teaching, assessment, remedial teaching. As for the quality of teaching is concerned, there is a noticeable difference in the attitudes and opinions of teachers reflected on their practice. Those who have shorter working life easier adapt to changes relating to the implementation of inclusive educational practices, while with the teachers who teach over 20 years there is still resistance to change. Due to this reason it is hard to make general conclusions on the quality of teaching. Since teachers talk about the high level of individualization and differentiation of instruction, and the students recognize it exclusively within the remedial classes, it is possible that this practice is conducted out of regular classes, which certainly needs to be changed and placed in regular classes. Also, this school has not made greater progress in the understanding of inclusive education, which was a note in the Baseline Study.

Some parents are aware of the existence of IEP, and this is a progress in comparison with the focus group when parents did not know either what an IEP is or what the individualization of teaching means.

The conclusion is that the school should improve the quality of teaching, but also the atmosphere in the school - there is a great division of teachers in assessing the importance of the trainings they have attended, and there is an extremely negative attitude of some teachers towards students with development disorders and the disabled, contradicting the statements of good atmosphere in the school. Also, there is a big difference in the attitudes of teachers and students in connection with the adjustment of teaching - teachers believe that teaching in their school is very individualized, while students think the opposite. In addition, it is important to note that the quantitative part of the study shows that the biggest risk factors present in this school are related to low student achievement, which directly shows the quality of teaching.

Remedial teaching. Remedial teaching is still not well attended, but today it is attended not only by students with lower marks, but also by those who want to fix bad grade or get the best grade. Students describe remedial teaching as a "repetition" of the regular class where the teacher talks the same "in his way" and not "in the way of students" so that they could understand what is not clear to them. Also there is the impression that some teachers do not understand the importance and aim of remedial teaching for students on dropout risk and they do not recognize the importance remedial teaching has for students who were absent from school for a longer period of time due to various reasons.

Practice of dropout prevention. Parents do not recognize the impact of the dropout factors and the role the school has in dropout prevention. So it can be doubted the possibility at this moment that parents could be a support in changing the school practice and culture. There is a visible progress in the number of measures undertaken by the school in the case of dropout in comparison to the Baseline Study, but the impression is that teachers still do not recognize their responsibility for the sense of well-being in the school and for the development of motivation for learning and attending classes and also for dropout. Although the lack of support from the family is an important factor acting on the dropout of students, teachers do not recognize that low evaluation of education and the interest of parents are the result of many factors that could be influenced by teachers by establishing a qualitative cooperation with them.

As a novelty in school practice students state the corner for students, using it, among other things, for extra-curricular activities (the students' corner is the result of the implementation of the project and aims to provide a space that goes beyond the standard environment of the classroom and students can use this space for a variety of curricular and extracurricular activities).

Involving parents. The impression is that parents find that today the school is more open in communicating with them, but that the level of substantive involvement of parents is the same. The teachers believe that parents are sufficiently informed and involved in the school and that the school does not need to engage further to include parents, which is a big change in attitude in relation to the results of the first focus group, when teachers expressed their opinions of a very low level of parental involvement. Teachers interpret this change as a result of awareness of parents about the importance of their involvement, as well as the greater openness in the school that followed the introduction of a new management of the school.

Involving peers. There is a students' parliament, but it still does not function in its full capacity. From time to time it has an impact on some decisions such the organization of graduation parties and choice of destination for an excursion. Parents are of the opinion that the students' parliament functions well in the school, they participated in workshops, but the realization of their actions is poor. Parents are in main acquainted with extracurricular activities in sport, support in learning beyond the informal and spontaneous support between groups of students who are friends, and they know for the mentor of the school who is engaged by the support of the project. As the findings of the first focus group indicated, teachers are still satisfied with the participation level of students in the school life and activities of the students' parliament, and one teacher noted that in this school year the meetings of students' parliament were more frequent than they use to be.

Cooperation with the local community. Students are partially familiar with the activities of the school and its links with local community and here is no change in comparison to the findings of the first focus group. However, in comparison to the previous period, it seems that students have more information on activities performed outside the school. Nevertheless, none of the students is familiar with examples of cooperation through which the school obtained any kind of aid for students. Concerning cooperation with companies, within the block teaching the school organizes practice for students in companies by signing contracts with them. This increases the possibilities for students to find a job in these companies after the completion of the school and this is proved by the experience gained so far. In contrast to the findings of the first focus group, teachers do not believe that they are powerless to initiate cooperation with local institutions.

SVS "4. jul", Vrbas

The sense of well-being in the school. Parents continue to express support for the school and praise all school activities. Like two years ago, parents believe that all students are welcome in the school, that there is no discrimination, no segregation of students on any basis. Teachers are satisfied with the atmosphere in the school and find that it is improving in many aspects and the sense of well being of students in the school is at satisfactory level. Unfortunately, all students agreed that there are students who do not feel welcome. They mention bullying as one of the reasons for it and there is no progress in this field in comparison to the situation before the start of the project. These findings indicate that students are now more sensitive and better recognize bullying than two years ago; this can be a contribution of the project that made students more sensitive for identifying and recognizing of bullying and made them ready to label it as something unacceptable. This might indicate that students are empowered to talk about violence, this being the first step in its prevention. Nevertheless, students find that recently the atmosphere in the school is getting better, because of the peer team, work of pedagogic-psychological service, new school management and due to the fact that now better students enroll the school.

High expectations of teachers for all students. Teachers continue to express the view that they believe that all students can progress, which is in accordance with the opinions of parents who believe that teachers think that everyone can achieve some progress and success, but it still depends mostly on the child. Students find that almost all teachers want to help and try to explain to students what they cannot understand, but there are several teachers who address students by derogatory names, which is an unchanged situation in relation to the period from two years ago.

The quality of teaching, assessment, remedial teaching. Teachers share the impression from the start of the project that they are equal and fair to everyone. However, in contrast to the initial state, when the teachers were of the opinion that students' rights were big, and that teachers had a narrow space for the operation, this time they talked about that recently matured the awareness of the need to observe each student as an individual and that they should coordinate the teaching process with respect to that position. In addition, what has changed, in their view, is that thanks to the project they have got more insight into the structure of students and have become aware that their school has a large number of students from deprived backgrounds, and therefore have improved cooperation with parents and the Centre for Social Work; they have developed IPDPs and they find it to be an important progress. Parents are, as before, satisfied with the quality of teaching and the method of assessment in the school. As far as the assessment is concerned, students believe that in the school still there is a practice that different teachers have different criteria and there are individual complaints that Roma pupils receive lower grades even if they deserve more.

Remedial teaching. In comparison to the beginning of the project, parents have the impression that the remdial classes are frequently scheduled, but the students do not consider remedial classes to be popular. Teachers, lately, take care of that that every time they should inform parents about keeping remdial classes, and it is considered that children attended these classes due to this fact. In cases where the child cannot come to remedial classes, teachers feel that they take an approach to adequately meet its need: the teacher prepares materials that the student can carry home, and the students also help each other. With the help of this project the library is equipped, so there are notable examples in which teachers use these resources. For example, the teacher of computer science, in cooperation with the Serbian language teacher, initiated the preparation of wall newspapers on the lessons of IT, which particularly affected the team work of students, as well as cooperation of teachers.

Practices of dropout prevention. The project gave a great contribution to that that teachers get acquainted with the reasons of the leaving the school and that they have the need to keep in the school the student on risk. They all agree that the measures conducted in the course of the project gave good results and they expect that many measures would be implemented after the project end. Some

teachers still have a resistance to inclusive education, and it is necessary to improve the practice of individualization and differentiation of teaching in the school. Students recognized that lately the school staff demonstrates an additional effort and pays a special attention to those who are frequently absent and are not motivated to attend school. Unlike the situation at the beginning of the project, parents are more familiar with the phenomenon of dropout of students and cases of dropout, and some of them have had experience that their children, with adequate support, could be motivated for learning again and for continuation of their regular education.

Involving parents. There is a space for larger inclusion of parents in the work of the school, but the issue is whether there is an adequate motivation for it, as the impression is that parents are overwhelmed by financial problems and unemployment. All students agree that parents are not included and informed about the work of the school in a sufficient measure and they would like to change it. Unlike the situation at the beginning of the project when teachers in main reported about parents who were not interested to cooperate, the focus is now on measures undertaken in order to improve this cooperation: there is not a particular day or hour when parents could come to the school, but they are welcome at any time, and teachers adjust themselves to them and inform parents as soon as it is assumed that there is a problem with the student.

Involving peers. The students' parliament is in fact still not included in the decision making processes in the school. However, all participants of focus groups are informed that now, thanks to the project, there is a peer team and they know the tasks of this team, e.g. that besides providing support to other students in learning, they support all students to feel welcome in the school. Students find that the task of the peer team is that the "stronger student (member of the peer team) protects the weaker student" and they find it to be a very positive attitude.

Cooperation with the local community. A good cooperation exists with various institutions (Center for social work, the police, health center) as well as the Youth Office and with the local self government that supports extracurricular activities and workshops. There is space for the improvement of the cooperation with the business environment concerning realization of practice.

THS "Toza Dragović", Kragujevac

The sense of well-being in the school. Parents find that students, in general, feel good in the school and highlight that the greatest problem is in the first year, when children have to adapt to the new environment, but they also point out that there is discrimination between students. Students report about a similar situation. This was the situation at the beginning of the project. Students find that not all students feel welcome at school and that is not nice to be in the school for every student. They say that teachers do not make difference between them based on socio-economic status or ethnicity. Students feel safe in the school – a situation both at the beginning and at the end of the project. However, students point out that the school has been improving over the time – the school is more active in solving different problems and improves its reputation in the local community. Teachers point out that the change has happened in the course of the project, they act in a more organized way concerning dropout and the understanding of the phenomenon has changed. This implies to greater cooperation in the staff and this is visible also as an improvement of the atmosphere in the school.

High expectations of teachers for all students. According to the parents, teachers believe that all students can progress, or that this is due to many factors - family, adolescence, fitting into the new environment. Teachers continue not to have high expectations for all students, but they believe that every student can make progress. Students think that teachers do differ in these expectations and highlight examples of those who believe in the possibility of progress of each student, as well as examples of those who do not have these beliefs.

The quality of teaching, assessment, additional support. At the beginning of the project, the dominant position of students and parents was that teachers often use the dictation, and they were all unhappy with it. Today, all respondents agree that the quality of teaching is satisfactory. Parents believe that teachers assess fairly. Students at the beginning of the project felt that teachers sometimes had favorites but, in a focus group at the end of the project, the students thought that this was no longer the case. They emphasize the openness of teachers to provide different types of support - in regular classes, in remedial classes; they have frequent opportunities for fixing grades, etc. Students praise the teacher of physics because he establishes good discipline in the classroom, there are interesting lectures and he respects each student alike. Parents for whose children IPDP was created were satisfied with the support their children received. As the biggest problem teachers feel to be that students entered the school with different levels of prior knowledge. Some teachers have attended seminars and training on IEP and against discrimination and believe that they have given good results. At the same time, at the end of the project, teachers report that the project activities greatly contributed to their capacity for individualization and differentiation of teaching.

Remedial teaching. Parents are familiar in general with remedial teaching, although there were some parents who did not know that it existed – this was the case both at the beginning and at the end of the project. At the start of the project students pointed out that remedial classes were held in case there were lot of low marks, but at the end of the project they reported that remedial classes were a regular opportunity to catch up with the curriculum and to improve knowledge. They are of the opinion that remedial classes have their results and that at the remedial classes teacher adjust his teaching to each of them individually. They say that in the school it is normal to attend remedial classes and nobody is ridiculed because of attending these classes. This was the situation both at the start and at the end of the project. Students are of the opinion that the support of other students is sometimes more useful than the remedial teaching. However, teachers highlight that it is still a huge obstacle that there is no adequate term when all students could attend remedial classes. They put great effort to organize remedial teaching in a way that it is harmonized with the local transport. Teachers report that they organize remedial classes also on the initiative of students, e.g. when students ask for it, regardless whether it was planned or not.

Practices of dropout prevention. Parents still do not understand the essence of dropout, but at the end of the project students knew that in the previous years some students had an additional support. Students are of the opinion that support could be helpful to some students and they would be happy to provide it. At the beginning of the project teachers considered that students leave school first of all due to the fact that it is difficult for them to adjust to the new environment, and that this happened in the first grade most frequently. According to this, they planned support to students in the first grade by insisting on the support in learning, peer support and psycho-social support. They also indicate that they continue to put effort to help students in poor financial situation and support them in transportation costs and a meal during their stay in the school.

Involving parents. Parents estimate that their participation in the school life is limited due to their financial situation – very often they do more business and cannot always afford the transport costs to the school. They find that the support of the class teacher and the possibility of contacting him by phone is the most important for them and ensure them that their opinion is respected. Students are still not acquainted with activities where parents would be included. Teachers point out that all class teachers do their best to be in contact with the parents in any way in order to inform them regularly about everything concerning their children.

Involving peers. Both at the start and at the end of the project, teachers are satisfied with the work of the students' parliament and they mention the parliament organizes various sport activities – tournament in volleyball, in football. They also point out peer support as a mechanism giving good

results – progress of students, larger cohesion in the class, etc. They find that very often students recognize themselves what is needed by other students as a support and in which fields. Students report that they are included into humanitarian activities, of attending workshops, forums, etc.

Cooperation with the local community. The most changes are recorded in the cooperation between teachers and constant insisting on cooperation with local institutions with the aim to obtain financial support and opportunities for practical teaching. Students feel and recognize this change. The school continues to organize various educational workshops in cooperation with local institutions, and continued the good cooperation with the Red Cross. The teacher who teaches design reports that lately the school increasingly cooperates with local institutions in connection with the provision of services of graphic design.

PS "Branko Radičević", Vladičin Han

The sense of well-being of students in the school. Also at the end of the project parents agree that student feel good in the school. They find that there is no discrimination based on nationality or financial status. They say that this atmosphere is the merit of the pedagogical assistant and the professional service. Parents also say that class teachers are in constant contact with them and that it is of great importance to them. Such views are consistent with the opinions of students, but on the basis of behavior and disapproval of some of the participants of the focus groups a contrary conclusion could be made. Teachers argue that in school, and at the beginning and at the end of the project, respect and appreciation of diversity (primarily in relation to SES and ethnicity) and solidarity (through the collection of school supplies, funds, clothing, activities of the peer team that are mainly informative) have been promoted.

High expectations of teachers for all students. The largest number of participants of the focus groups agreed that teachers mostly have high expectations for all students, "believe" in them and in their capacity, which is the same position as that was set forth two years ago.

The quality of education, assessment, additional support. Parents indicate that some teachers expect from them to help their children in learning at home, and that they are not aware of the fact that parents are not able to help their children as very often they are not familiar with the curriculum. Students do not complain about assessment any more as it used to be the case at the beginning of the project (for example, the student who was the teacher's favorite got the solved school assignment in advance). It is the general impression that students are not satisfied with teaching very much, as they often describe it as boring and useless with most of the teachers. Teachers find that they assess both knowledge and progress of students. The pedagogical assistant works still hard with all students who need support. Teachers argue that during the course of the project they engaged themselves more in providing additional support to students who needed it, first of all as joint planning of the support and consultations during the process. Teachers also involve more students in the planning and realization of teaching and tests than they used to do. Parents are informed about that that teachers and students collect financial funds as a support to students in need – most frequently they obtain them free excursions, as well as that the school is making efforts to provide parcels of clothing and shoes whenever it is possible. Parents who often migrate to abroad argue that now certain teachers make effort to help students to catch up with the curriculum, but there are also teachers who decry such students and are not interested in helping them.

Remedial teaching. The parents believe that remedial teaching can be helpful, but often students cannot follow what is being done in remedial classes and that there was no significant progress, which agrees with the opinions of students. They argue that remedial teaching is organized from all subjects

and find that it is of help to them, but students generally attend them prior written assignments or if they missed something because of illness, but not regularly. The students believe that remedial classes are not only for the poor students. Students say that teachers reward regular attendance of additional classes. Today, teachers are more likely to allow for remedial classes to be used to fix grades, and some teachers now include peers for whom the subject is "going great" in remedial classes in order to help other students. They say that peers often know better to assess what the less successful students can learn and that they often better know how to approach such students than the teachers themselves. Teachers, as opposed to students and parents, do not mention that the pedagogical assistant holds additional classes for individual students.

Practices of dropout prevention. Problem still represent departures to abroad of Roma students. Compared to the initial state when the practices to prevent dropout were reduced to individual conversations and sporadic home visits, today dropout prevention procedures are very different, and in addition to the identification of students at risk of dropping out and developing individual education plans, cooperation with secondary school is provided in order to prevent dropout in the transitional period. Teachers have noticed that they have huge profits of organized joint actions in relation to the prevention of dropout - they have a different view of students who are at risk of dropping out, far easier perceive their overall situation and the potential causes of dropout. They find that they achieve a much greater effect when they jointly plan and provide support. A few children of Roma parents have received additional support through the IPDP. These parents say that the support that their children have got is very significant. The pedagogical assistant, although an indispensable support for a large number of students and teachers, is burdened with the tasks and jobs that often teachers are not sufficiently interested in (i.e. remedial classes).

Involving parents. Parents report that teachers are willing to receive their visit to the school, but several Roma parents pointed out that sometimes they felt bad because they were expected by teachers to help their children in doing their homework, and they were not able to do that in fact. These findings do not differ from the findings from two years ago. For most of the parents is not clear in which way they can help their children to stay at school and to progress. Besides that, parents do not report that they initiated any changes in the school, and students also do not know about such a practice. Concerning involvement of parents teachers do not mention very different opinion at the beginning and at the end of the project: interest of parents for school decreases with the age of their children, so in the eighth grade, only a few of them come to parent-teacher meetings. Poverty remains a major problem faced by families. In terms of development and implementation of IPDPs, some parents were more active and engaged than ever before, which can be considered to be a progress.

Involving peers. Students are involved in the school life through the students' parliament and the peer team. However, it seems that the students' parliament deals with issues in most cases such as organization of extracurricular and humanitarian activities. Members of the peer team highlight that the activities of providing information on the importance of antidiscrimination contributed to the improvement of sense of well-being of students in the school, but it is the impression that the peer team, except providing information on the values promoted by the school, does not have an important role and does not have the full confidence of all students of the school. Teachers report that now they more often involve students in planning teaching and development of tests and testing knowledge, especially when planning teaching for students educated according to IEP or IPDP.

Cooperation with the local community. Although parents and students do not have the impression that the cooperation between the school and local institutions has considerably improved during the project, pointing out that humanitarian activities of local donors focused on the school existed even before the project, teachers argue that the cooperation with the secondary school (that is also included into the project) has improved, that now students are more familiar with the educational profiles of this

vocational school and have a clear view what they can get from the school in their further education. Statements of students are identical with this impression of teachers – students say that they are informed about the possibilities of continuing their education after completion of the primary school.

PS "Ljupče Španac", Bela Palanka

The sense of well-being of students in the school. The conversation with parents showed that they were of the opinion that in the school there was certain discrimination between students based on social status and financial situation. Poorer treatment of poor students (Serbian or Roma nationality) by the teachers was recognized by most of the parents participating in the focus group. This was confirmed also by the focus group of students. In addition, the definition of groups of children as "savages" by the parents and the attitude that they do not belong to the school, indicate that there are discriminatory attitudes among parents. Before and after the implementation of the project teachers do not see the diversity of factors that can act on a student's learning, i.e. as the greatest problem they identify in the lack of motivation of the student, are bad discipline and absenteeism. These findings show that in the previous period it has not come to a substantial change of the climate in the school, which is still less favorable to certain groups of students related to other students, so this aspect of the school life needs to be further developed.

High expectations of teachers for all students. Teachers report on high expectations for all students. Still, at the same time, they find that the abilities, the family they are coming from and inherited factors determine the success in school, with the warning that students can make a progress in some extent if they have a relevant support, but this is very difficult to achieve. They also report on the lack of discrimination at classes. However, some teachers, talking about "much easier tasks" they give to students in need of support, in combination with the previous statements, casts doubt on the previous testimony that all have high expectations from students. Some parents still report that some teachers are not interested in student achievement.

The quality of teaching, assessment, additional support. Parents argue that most of teachers are devoted only to better students and the ones that are behind in achievements are neglected. Some students report of some students having preferential treatment in the school and that grades are bestowed to them. As their compromise teachers treat the fact that they announce control assignments, that they prepare students for testing and inform them when they would be tested. At the end of the project, teachers report that they put a huge effort in improving the quality of teaching (use of innovative technologies), supporting and encouraging of students (more frequent praises), creating opportunities for learning (higher frequency of remedial teaching) and fixing grades (more frequent possibilities to fix grades), as well as an improved cooperation with parents (parents are more frequently invited to the school) has been established. However, it seems that the attitude of teachers to IPDPs is akin to their attitude to IEP at the start of the study. These plans are treated as administrative obligations and it seems that teachers do not rely on the contents of the plans and pedagogical profile when planning provision of additional support. After two years of implementation of the project in the school, students still report about that that some students are privileged in the school, that grades are bestowed to them, etc (usually these are students who are somehow linked to the teachers). The project did not influence at changes in assessment. Additional support, high expectations, acceptance are still very poor in the school, based on the statement of the students. Books are not collected; poor students lend books from the library. Repetition of grade is, thanks to the project, now somewhat more rare, and in the school they started to treat repetition of the grade as an undesirable practice.

Remedial teaching. At the end of the project teachers report that remedial teaching still does not have effects on students, that students are still not interested in attending remedial teaching although they

are invited to attend it. Attending remedial teaching (notwithstanding whether learning is at the remedial class or not) teachers often reward by higher grades. Students state that lately remedial teaching is organized more regulary, but it still resembles the regular class (it is the repeating of what has been done on the regular class). It is interesting that this is the only school in which parents favor private lessons performed by another teacher to remedial teaching organized by the school, which might indicate that parents do not see the responsibility of teachers for the learning of students.

Practices of dropout prevention. In case of larger number of absences, the school pedagogue or psychologist sends invitation to parents to come to the school, and partially the general practice of dropout prevention has been improved. Parents are not informed that in the school there is a Team for dropout prevention and even students do not know that the school has elaborated procedures for acting in case it is identified that a child is under risk of leaving school. Also, based on the focus group with teachers, the impression is that teachers do not function as a team and that they do not share a common view of the phenomenon of dropout and failure. But a part of the teachers has considerably improved their knowledge on the importance of dropout prevention and apply different measures to prevent dropout. However, in the school there is a number of teachers who did not progress in comparison to the Baseline Study when they found that "who does not want to attend the school, he has not got to attend" and that nothing can be done in such cases. It seems also that some teacher treat dropout as a phenomenon that is not (inevitably) in the range of their task. Also, the school was offered to participate in a project that supports doing homework for students from vulnerable groups. The school accepted the participation, but after the ending of this project, saying that they "do not want to mix activities of two projects". Therefore, it is the impression that the school has not established a joint vision and mission oriented on the provision of additional support and dropout prevention. At the end of the project, as a positive progress it can be noted that teachers highlight the early warning and intervention system as a very useful tool which they are going to use also in the future.

Involving parents. There is a parents' council and it functions in the school, but through it parents are only formally involved in the work of the school, in effect parents do not participate in decision making processes. In the schools there is a day of open door, individual and parent-teacher meetings, but parents do not attend them regularly. Through the interview pervades the burden of the difficult financial situation shared by the parents and the absence of their substantive knowledge of what is going on in the school. At the end of project implementation, teachers have argued that the cooperation with parents was better, primarily because they themselves often called for cooperation.

Involving peers. Students' Parliament is not working. Students report that the students' parliament had the first sessions last year, since they have attended this school, and that the most discussed topic was organizing of extracurricular activities (e.g. to purchase balls), but it seemed them that the session would not continue and no support was given them for the operation. Few parents know that there is a students' parliament, but as it was the situation two years ago, when they did not know the extent to which it is active and they were not aware of any activities of students (except rehabilitation of floods), none of the parents even now is familiar with the work of students' parliament . Also, parents do not have information on whether there is a peer team in the school. There are no peer group activities at school level, except when the teacher tells a student, "let's give him a little help," without specifying the method or type of aid. Teachers treat cooperation with students as satisfactory by engaging individuals in humanitarian activities.

Cooperation with the local community. Teachers find that, regardless the participation in the project, there is no cooperation with the local community. The Roma coordinator, according to the opinion of the teachers, is a person who just attends seminars and uses privileges and does not contribute to the community and does not deal with Roma students. They report that they are familiar with the fact that the school has a more intense cooperation with the local institutions than at the start of the project. All

of them are of the opinion that the cooperation with the Centre for Social Work could be improved, that this institution, in cooperation with the municipality, should check the material status of each family and make joint efforts to help students where poverty is the reason for not attending school, and that the school should be included in the situation when the cause for it is the lack of interest for the school. It is interesting that it is the practice of the school that they obtain monthly tickets to talented students and not to those students who have the greatest need for this kind of support. The general conclusion is that that the project has not initiated a better cooperation with the local community.

PS "Jovan Jovanović Zmaj", Surdulica

The sense of well-being of students at the school. At the end of the implementation of the project, students report that a lot has been done, including their activities, to improve the climate in the school and that there is no verbal, and even less physical violence, even in the form of teasing. They find that the main reason is that the teachers "give power" to certain students to impose and promote the values of equality and mutual respect within the school. According to the parents, the students in the last two years became much more satisfied with the school and their activities in it, they feel it more like "their place" that can be influenced by them and where they themselves regulate and respect rules.

High expectations of teachers for all students. Students indicate that teachers are more willing to meet the need of certain students, providing them additional opportunities for responding and they are encouraging them that they are able to achieve high grades. In this attitude of the teachers they do not see any problem, on the contrary, such a behavior they find to be very positive. Teachers have changed their relationship to poor children and they believe more that such children can achieve a progress. They are still of the opinion that the greatest obstacle for achieving a progress is that some students are absent from the school for several weeks due to temporary work of their parents abroad.

The quality of teaching, assessment, additional support. If we consider that the teachers are the ones who gave the most detailed information about the quality of teaching, this information should be taken with caution as being subjective. It should be noted that a small number of teachers before the project went through the training and that the project has significantly improved this aspect. The impression is that parents are partially familiar with the practices of assessment, and that they evaluate assessment based on that whether they are satisfied with the assessment of their children, but this opinion should be considered with a caution. However, at the end of the project, the comprehension of the importance of assessment as formative and motivating factor has been improved, and both students and parents report on this important change. This does not mean that the assessment criteria vary from student to student, but that formative assessment with summative can be a kind of support that will lead students to greater achievement. Class teachers are familiar with the socio-economic status of students; the school has a pedagogical assistant who goes into the field visiting families. When it comes to students with low socio-economic status, the teachers stated that their achievements have improved, thanks to the additional support they are continuously provided, and that it leads to the growth of "popularity" of these students within the school.

Remedial teaching. Like two years ago, remedial classes in school work very well, available to all the students who say that they would always prefer remedial teaching to private lessons. There is no stigmatization or feeling of failure of the students who attend remedial classes. Remedial classes are attended by anyone who wants to improve his marks. It gives very good results and the students are progressing, but it is still a problem of maintenance of term, as the eighth class when students are already tired is not suitable. Remedial teaching is individualized and teachers find it very effective.

Practices to prevent dropout. At the final focus group, teachers unanimously say that the circumstances in which students live actually are much more powerful factors of achievement than they

thought before. Through detailed knowledge of the students and their lives, in providing additional support, some teachers report that they radically changed their beliefs about a particular pedagogical process. Now they realize that what they thought before to be "laziness" or lack of ability, are in fact the result of a very difficult environment in which students develop and learn. Some teachers report that they became aware that they unconsciously discriminated some students. The change is observed by students and say that, today, teachers pay more attention and provide support to weaker students and are trying more to keep them in education than it was the case before. It is important to note that at the beginning of the project implementation it might be noticed that the parents thought that the project is more concerned with the Roma population than with all students, which is understandable because a large number of parents does not link certain events, such as going abroad, with poverty as the main cause of dropout. At the end of the project, no one talks about the Roma pupils as a separate group but of all students and on social care that the school provides. It seems that parents are aware of the fact that the school, which is willing to support someone who is poor or under another type of risk, is willing to provide it to every child in different aspects which may vary from student to student.

Involving parents. The impression is that prior to the implementation of the project it depended on the teacher whether someone would deal with involvement of parents, e.g. there was no mechanism at the school level, although it was possible to learn what teachers understood under the statement that some parents were included in a sufficient extent and some more than it was needed (probably meaning to exaggerate the influence of some parents on the teaching process, subject and assessment, which may lead to the conclusion that teachers do not consider in the same way all aspects of parental participation). In the final focus groups it was clear that the engagement of the school to involve parents did not have a special result. Parents admit that they had got very creative, attractive and interesting proposals from the school to involve into different activities, but simply they did not have time, power and will to participate in it. It was then when their children invited them and insisted on their participation that they accepted the invitation and that after the involvement in such activities they realized the importance of it for the school, for all children and for themselves.

Involving peers. Students' parliament has been very active from the very beginning of the project, which could be seen through their involvement in activities that were organized. At the beginning of the project in the school there existed some kind of engagement of students by teacher in helping other students in the school, and this was enriched and empowered by project activities focused on the work of the peer team. However, the real power of students was achieved when teachers, through creating joint action plans, allowed them to make an impact on various school policies and procedures, by which, the inclusive values that are supported by the students' parliament together with the peer team, became more widespread and discrimination was reduced. In the final focus group students stated that the work in the Theater Forum that is realized in the schools was particularly important, and they pointed out the positive attitudes concerning the engagement of the peer team to activate all students in the school.

Cooperation with the local community. As before the start of the project, cooperation with local institutions is good, it is slightly corrected in relation to two years ago, but all agree that it can be improved, especially when it comes to cooperation with the Centre for Social Work, which proved to be inefficient when it comes to support for Roma students. Compared to the previous period, the school cooperates intensively with Roma organizations that support the provision of school textbooks, support in the organization of excursions, etc. Teachers believe that their status in the community has improved significantly, as well as the reputation of the school, precisely because students feel better and more accepted at school.

PS "Bratstvo jedinstvo", Vrbas

The sense of well-being of students in the school. Parents argue that there is a positive atmosphere in the school and that all students feel good and welcome. This is the finding of the Baseline Study and today this is the opinion of students who previously agreed that not all students felt good in the school. Contrary to the opinions described in a Baseline Study the basis of which it was concluded that students did not accept students from marginalized groups, students now think that is not the case anymore, and that students do not reject each other despite the differences. In general, the impression is that the school is trying to accept all students and that there is a high level of empathy, headed by the director whom all participants pointed out as someone who cares for an open relationship with everyone.

High expectations of teachers for all students. Parents are of the opinion that teachers have high expectations for students, and this the opinion also of most teachers and students. This attitude might be taken as a slight progress, as two years ago they had the opinion that students could not progress equally, and this was the opinion of teachers first of all.

The quality of teaching, assessment, additional activities. As before, the student assessment is appropriate and balanced. Progress is evident in the fact that today all three groups of respondents believe that teaching in school is good, although the students state the problem of frequent changes of teachers, which negatively affect the quality of teaching. Teachers have become more aware of what individualized teaching approach can bring, which was shown them by the application of IPDPs and seminars they have attended. What additional support is concerned, parents know about the existence of the IEP, but they are not familiar with the content, purpose, aim and possibilities of IEP, and in most cases stated that IEP was used only for students with development disorders and disabilities, which is a slight difference compared to the results of the first focus groups where parents did not even know of the existence of the IEP or any kind of individualized teaching. Teachers point out that the school is a lot involved when it comes to additional support to pupils and mention as the best example the Charity Ball (which they claim does not exist in other school in Serbia), as well as events and sports activities, a change in relation to the findings of the Baseline Study where teachers listed only humanitarian activities aimed at obtaining financial assistance for students, but not the activities that develop in students a sense of well-being and belonging to the school.

Remedial teaching. Parents are better informed about the organization of remedial classes in relation to the findings of the first focus groups with parents, but students are still, for the most, not satisfied with remedial teaching. Also, in contrast to the findings of the first focus group, all students would rather go to remedial classes than on private lessons. Students point out also that remedial education works well in most cases, with "difficult" subjects (e.g. mathematics). Sporadically, some students are still ashamed to come to remedial classes in certain subjects, but all agree that the school is working on resolving this problem. Teachers point out that the biggest problem in the organization of remedial education is the fact that it is organized as the eighth class when students are tired. The attitude of teachers has changed who, based on the findings of the first focus group, did not realize the connection between the different conditions in which students live and the need for remedial teaching, while now clearly recognize this link.

Practices to prevent dropout. Parents are aware that the key factors affecting the dropout are the poor family conditions and socio-economic status of students, but they also report that there are examples of parental disinterest and neglect when it comes to the education of their children. These attitudes represent a significant change in the attitudes of parents that were expressed during the focus groups conducted for the assessment of the baseline. Past practices to prevent dropout were to contact the parents of students at risk of dropping out and sporadic home visits in some cases of prolonged absences of students, but today these are not the only measures that the school implements. On the contrary, the range of measures undertaken by the school is diverse and tailored to students who are found that are at risk of dropping out.

Involving parents. Parents are more familiar with the work of the school and their participation has increased, although this mainly applies to those parents who are to a certain extent, already involved in school life. However, they find that they can be more involved. The general impression is that parents are much more engaged in school work than it was the case prior to the start of the project, when parents were also informed but not involved in school events.

Involving peers. The Student Parliament continues to function in accordance with the law and representatives of this Parliament attend meetings of the School Board, without voting rights, but actively present the views of students. Students praised the peer team, though pointing out that none of the students accepted their invitation to provide assistance in learning, and the reason for this is seen in the fact that "the students are ashamed" because there is the concern that members of the Peer Team could tell to other students that some of the students have low grade, and students are refused by a situation in which, because it is new and unusual for school, they see the possibility that they could be teased by other students .

Cooperation with the local community. The school maintains its already established relations with institutions in the private sector which often support the school financially. There are a number of local initiatives of extracurricular, educational and humanitarian character that are implemented successfully (e.g. co-operation with the Red Cross, the local media, non-governmental organizations). There is dissatisfaction with the cooperation with the Centre for Social Work. Also, during the previous focus groups often appeared the opinion that there is a rejection of the school in the local community because of the large number of Roma students. This problem has not been seen in any of the focus group now - on the contrary, it seems that the school and a number of different actions drew the attention of the local community, and has the status of a school that helps its students, which is its strength rather than a weakness. Therefore, the general impression is that the school is more open and that the change in the school ethos contributed to greater involvement of all stakeholders and its openness to the community.

SCHOOL/ASPECTS	Sense of well-being of students in the school	High expectations of teachers for all students	Quality of teaching (including additional support and assessment)	Remedial teaching	Practices of dropout prevention	Involving parents	Involving peers	Cooperation with the local community
ACS "Dr Đorđe Radić", Kraljevo								
Technical School, Vladičin Han								
Polytechnic School, Kragujevac								
Technical School "23. maj", Pančevo								
SVS "4. juli", Vrbas								
THS "Toza Dragović", Kragujevac								
PS "Branko Radičević", Vladičin Han								
PS "Ljupče Španac", Bela Palanka								
PS "Jovan Jovanović Zmaj", Surdulica								
PS "Bratstvo jedinstvo", Vrbas								

Table 13. Summarized results of the qualitative analysis

Legend:

	Considerable improvement		Small improvement		Unchanged situation		Deterioration

Appendix 4. Description of Risk Intensity in the Instrument for Identification of Students at Dropout Risk

	Level 1	Level 2	Level 3	Level 4	Level 5
Socio-economic status	The student lives without elementary living conditions: in unhygienic settlements, without electricity and water. Both parents are unemployed or one of the parents is employed on poorly paid job.	The student comes from a region where there is electricity and water. Both parents are unemployed or one of the parents is employed on poorly paid job (under the poverty line)[29]	The student whose family is on the line of poverty and / or receiving assistance from the wider family or a family member as a regular income.	Student of average socio-economic status.	Student of higher socio-economic status.
Absenteeism	The student was not present at 30% or more of the total number of school classes.	The student was not present at 20% to 30% of the total number of school classes.	The student was not present at 10% to 20% of the total number of school classes.	The student was not present at 5% to 10% of the total number of school classes.	The student was not present at 5% or less of the total number of school classes.
Academic achievement	The student has lowest mark in 5 or more subjects (in any of the classification period).	The student has lowest mark in 3 or 4 subjects (in any of the classification period).	The student has lowest mark in 1 or 2 subjects.	From majority of subjects the students has in main passing (2) marks.	The student has similar or higher achievement in relation to the school average.
Behaviour	Some of the behavioral problems are so severe that interfere with the normal functioning of the student within the school and extracurricular contexts: 1) resistance to the authorities (e.g. conflict with teachers); 2) peer violence; 3) antisocial behavior (refusing to socialize with peers); 4) addiction	Problems in behavior from these five categories are expressed, but the student is successful in certain segments of his behavior (socializing, achievement, attendance and behavior in class, etc.).	Behavioral problems are present, but they are of low intensity and do not interfere with the normal functioning of the child in and outside the school.	Some behavioral problems used to be present, but they are not anymore.	Student has never had behavioral problems.

[29] According to the data of the Statistic Office of the Republic of Serbia, from 2012, the relative line of poverty per household is 13 680 RSD (≈123 EUR, currency rate from 2012) for one member family and for a four member family with two young students aged 14 is 28 728 RSD (≈261 EUR, currency rate from 2012) and 24.6% of households was at poverty risk at that time (The Survey on Income and Living Conditions – SILC, 2013).

	(alcoholism, drug addiction); 5) delinquency.				
Compliance with requirements / use of social assistance[30]	The student is eligible to be a beneficiary of social assistance, but the family does not receive aid for any reason.	The student is eligible to be a beneficiary of social assistance and at present the procedure of getting the aid is going on.	The student is from a family eligible to be a beneficiary of social assistance and is a user of social assistance or lives at the poverty line.	The student was a beneficiary of social assistance, but ceased to be, because there is no more need for that.	The student has never had the need to be a beneficiary of social assistance.
Peer Acceptance	The acceptance of the student in the school is not satisfactory and two out of the following three statements are correct: 1) does not have a friend; 2) is a target of bullying; 3) social interaction is within a very small and closed group (e.g. ghettoization, group of two Roma students)	The acceptance of the student in the school is not satisfactory and one out of the following three statements are correct: 1) does not have a friend; 2) is a target of bullying; 3) social interaction is within a very small and closed group (e.g. ghettoization, group of two Roma students)	The student is more or less accepted in the school, but there are recognized some of the problems from the previous two categories.	The student' s acceptance in the school is satisfactory, but there are some problems.	The student is accepted in the school and none of the stated problems are present.
Other risk factors	There are one or more other risk factors such as abuse and neglect, teen pregnancy, repeating grades, exile, incomplete families, experienced trauma and the like, and their effect on the student is strong and visible.	Expressed is some of the risk factors such as abuse and neglect, teen pregnancy, exile, incomplete families, experienced trauma and the like. Its effect is moderate, but there is a possibility to influence the interruption of schooling.	The effect of these risk factors exists, but now on a small scale.	Risk factors were active at some point in the student's life, but at the present moment are not present.	These risk factors of dropping out have never existed in the student's life.

[30] **Small reminder** (Law on Social Protection, Official Gazette of RS, no. 24/2011) **Who acquires the conditions to become a user of the system of social protection by Serbian law?** Minor without (or at risk of losing) parental care; minor whose parents argue over ways of performing parental rights; minor with disabilities (physical, intellectual, speech-language, socio-emotional); a minor who is facing difficulties due to the abuse of alcohol, drugs or other intoxicants; minor at risk of abuse, neglect and domestic violence; adult person with disabilities (physical, intellectual, sensory, communication difficulties); an adult who is at risk of abuse, neglect and domestic violence; adult person who faces: difficulties due to disturbed relations in the family, addictions to alcohol, drugs and other intoxicants. **Who gains the right to financial support?** Individuals who do not receive a monthly income higher than 6,050 dinars.

Appendix 5. Template for the Development of IPDP

Individual plan of dropout prevention (IPDP), No. _____
Date: _____

Justification for the development of the IPDP:
Score of the student in the instrument for the identification of students ____
Group of risk factors:

Personal data of the child at dropout risk	
Initials of the child	
Class	
Date of birth	
Occupation/current employment of the mother	
Occupation/current employment of the father	
Socio-economic status and contentment of basic needs (food, clothing, residence) and the assessment of whether the child has adequate space for learning, supplies, textbooks[31]	
Compliance with requirements/beneficiary of social assistance	
Behaviour	
Peer acceptance of the child in the school[32]	
Existence of other risk factors	
The student's self-concept and belief in his own competence	
Identified areas of successfulness of the child	
Note (if you know the information that you consider important, and is not already mentioned, e.g. health status of the	

[31] When giving the statement of reasons for this section it is obligatory to state, if any, demographic specifies that are important for conditions that may affect the student-unhygienic settlement, rural district, etc.

[32] When giving the statement of reasons for this section it should be borne in mind if the student met with the need for security (absence of violence, discrimination, non vulnerable health, environmental safety and security) and the need of belonging (family, school, peer communities, city of residence). Consider the information provided in the section relating behavior.

child, assistance / health equipment, the current measures of individualization, rehabilitation, foreknowledge, language, motivation, evaluation of education in the family, etc.).	
Indicators of dropout risk	
Number of unexcused absences at the end of the previous classification period	
Number of excused absences at the end of the previous classification period	
Academic achievement – average grade at the end of the previous classification period	
Did the student repeat the grade or had to take a repeat exam? If yes, please state when and why	
Score at the instruments of motivation of SAAS-R (35 statements on a seven level scale, min. 35, max. 245)	
Score on the instrument that measures high expectation for all students (8 statements on a five level scale – min. 8, max. 40)	
Score on the instrument measuring sense of well-being in the school (9 statements at a five level scale – min. 9, max. 45)	

Measures of support ot students at dropout risk					
Description of the measure (activities that make the support measure)	**Expected outcome of the support measure**	**Way of realization (funds needed, human resources, inclusion of resources from outside the school, etc.)**	**Period of time for the realization of the measure**	**Name of the person responsible for the realization of the measure**	**Name of the person responsible for the evaluation of the effects of the measure**

Members of the team for development and realization of the IPDP and the criteria for their involvement	
Name and function[33] of the member	**Criterion for his involvement[34]**

[33] Under the function of a member is understood the role and taking of the responsibility for the realization of a portion of the IPDP. For example, one teacher may be required to work with the student to increase achievement in mathematics, while others will be obliged to incorporate the student in a greater extent in extracurricular activities.

Coordinator of the IPDP[35]:	

[34] Under the criterion of involvement of teachers is understood the explanation as to why he is the suitable person for the realization of one segment of IPDP; reasons may be the specific interests of the child (e.g. through engaging music teacher in a child who has such affinity) and the quality of relationship between the teacher and the student.

[35] One person within the team is the *coordinator of the IPDP.* This should be a person with whom the child is in the best relationship and/or for whom it is supposed that knows the child the best and who is the most responsible for the success of the IPDP.

Appendix 6. Questionnaire for Primary Schools for the Baseline Assessment

Questionnaire for the Baseline assessment				
1.	Basic data on the school (data refer to the current situation)			
1	Total number of teachers			
2	Total number of classes			
3	Total number of students in the school			
	Total:		M:	F:
4	Total number of students for each grade:	First:		
		Second:		
		Third:		
		Fourth:		
		Fifth:		
		Sixth:		
		Seventh:		
		Eighth:		
5	Number of students of Roma nationality	Total:	M:	F:
6	Number of students refugees and internally displaced persons			
7	Number of students attending teaching under IEP 1, IEP 2 and IEP 3	IEP 1:	IEP2:	IEP3:
8	Number of students living in families that are beneficiaries of any kind of assistance from the system of social protection			
9	The number of students who live at a distance of over 2 km from the school			
10	Number of students living with only one parent			
11	Number of students living without parents or in foster families			
2.	What is the average score by grade at the end of the school year 2015/16 for all students by grade?			
1	Second grade			
2	Third grade			
3	Fourth grade			
4	Fifth grade			
5	Sixth grade			
6	Seventh grade			
7	Eighth grade			
3.	What is the average score by grade at the end of the semester in the school year 2015/16 for all students by grade? 1			
1	Second grade			
2	Third grade			
3	Fourth grade			
4	Fifth grade			

5	Sixth grade	
6	Seventh grade	
7	Eighth grade	

4.	How many students interrupted education in your school in 2014/15?	
1	First grade	
2	Second grade	
3	Third grade	
4	Fourth grade	
5	Fifth grade	
6	Sixth grade	
7	Seventh grade	
8	Eighth grade	
5	How many students interrupted education in your school in 2015/16?1	
1	First grade	
2	Second grade	
3	Third grade	
4	Fourth grade	
5	Fifth grade	
6	Sixth grade	
7	Seventh grade	
8	Eighth grade	

6.	Please state the reasons why students are leaving school (it can be a narrative description of a few sentences), and next to it enter the number of students who left school for these reasons. If you can not subsume multiple students under one reason, then please provide all reasons.		
1	Reason:	Number of students:	
2	Reason:	Number of students:	
3	Etc.	Number of students:	

7.	What is the total number of excused absences per grade in 2014/15 and 2015/16 school years made by all students?				
2014/15	First grade		2015/16	First grade	
2014/15	Second grade		2015/16	Second grade	
2014/15	Third grade		2015/16	Third grade	
2014/15	Fourth grade		2015/16	Fourth grade	
2014/15	Fifth grade		2015/16	Fifth grade	
2014/15	Sixth grade		2015/16	Sixth grade	
2014/15	Seventh grade		2015/16	Seventh grade	
2014/15	Eighth grade		2015/16	Eighth grade	
8.	What is the total number of unexcused absences per grade in 2014/15 and 2015/16 school years made by all students?				
2014/15	First grade		2015/16	First grade	

2014/15	Second grade		2015/16	Second grade	
2014/15	Third grade		2015/16	Third grade	
2014/15	Fourth grade		2015/16	Fourth grade	
2014/15	Fifth grade		2015/16	Fifth grade	
2014/15	Sixth grade		2015/16	Sixth grade	
2014/15	Seventh grade		2015/16	Seventh grade	
2014/15	Eighth grade		2015/16	Eighth grade	

9.	What is the total number of students who repeated grade in the previous school years?	
1	2014/15	
2	2015/16	

10.	Describe five examples of cooperation, if any, that you had in the previous cooperation with institutions and community organizations in order to prevent dropout of students from the school. Choose those cases that best illustrate the quality of cooperation between the school and those institutions / organizations.
1	
2	
3	
4	
5	
11.	Describe the academic procedures that the school applies if a teacher or professional associate remarked that a student is at risk of school dropout which you intend to continue with even after the completion of the project.
12.	Does the school cooperate with the parents of students who are at risk of dropout? If you cooperate, describe how and in what way.
13.	Does the school provide free meals to poor students? If providing, how it does, and from which funds?
14.	How does your school organize remedial classes? Who attends it and for what reasons? What kind of relationship to remedial teaching have teachers and students? Do students and teachers treat students attending remedial classes as students who are unsuccessful? What are the criteria by which students are included in the remedial classes?
15.	Is the practice of peer support present in the school?
16.	What are all the extra-curricular activities and extra activities in your school?

Appendix 7. Guide for the Final Focus Group with Parents

Introduction

Focus groups that will be organized in each of the 10 schools from the project are a research activity that should obtain data on the situation in the schools concerning factors that contribute to dropout after two years of project implementation. These interviews will be conducted with three target groups: school staff, parents and students, and in this way they will obtain approach to data from different perspectives.

This thematic guide is for the group interview with parents and guardians.

Goal of the focus group

The goal of the focus group is to define the perception of parents on all relevant practices concerning dropout prevention within the school and on changes that happened in the school during the past two years. The focus group questions will be focused on their information about the quality of teaching, school culture, climate, school activities in dropout prevention, remedial teaching and assessment, quality of cooperation of the school with the local community, as well as the level of their participation in the school life.

Composition of the focus group

The group should consist of at least 6, max. 10 parents or guardians of students from the school. The composition of these groups should be gender balanced, it should consist of parents/guardians with different levels of education and social status, and if the community is ethnically diverse, the composition of the group should reflect it.

The group should not consists only of members of advisory boards or the Parents' Council.

Conducting the session

During a group interview please try to follow the basic protocol for that purpose.

- Introduce the project.
- Introduce yourself and your organization.
- Present the goal of the study.
- Establish a positive atmoshpere.
- Take care that everybody participates in the work. Inspire the quite members of the group. .
- Ask subquestions for getting complete answers.
- Keep track of questions and time carefully - it is your task to follow them,
- Do not argue with participants, even if they are wrong. Deal with that later if you must.
- Thank participants and tell them what will happen with the information.

Questions of the focus group

The questions are very broad, since we would like to examine any problems that may be mentioned in performance of the interview. The interview should be more a conversation between you and the interviewed. If the answers of the interviewed get away from the subject, put it back on the topic by asking a relevant question.

Questions (by area)

On school ethos:

1. How would you describe the climate and culture of the school? Do all students feel welcome in the school?
2. In your opinion, does the school in the same way treat all parents, regardless their social status or some other difference?
3. In your opinion, are all children in the school accepted, regardless of their social, ethnic origin, disability (e.g. learning difficulties or limited mobility)? Does the school treat all students equally?
4. What is the way of school management? Is it sufficient democratic?
5. In your opinion, does the school involve parents in the life and work of the school?
6. Is there a mechanism of cooperation with parents in situations significant to students?
7. How does your child feel in the school?
8. *Has the school climate changed, and if so, how, in the previous period (previous period of two years)?*

On dropout:

1. Are you informed about any case of leaving school in your school in the past two years? If so, which were the main reasons of interrupting education?
2. To your knowledge, what does the school undertake concerning dropout of students?
3. Whom would you contact in case you would recognize that your child, for any reason, lost interest in school and that it is at dropout risk? Would it be important to you if there were a staff in the school dealing exactly with this issue (e.g. Team for dropout prevention)?
4. What do you think is the most common cause for leaving school?
5. *Did you, and if so how, the school involve in its work on the prevention of dropout? Has your understanding of this phenomenon changed in recent years (the previous two-year period)?*

On quality of education:

1. Are you satisfied with the quality of teaching your child has in the school?
2. Do teachers believe that all students can make a progress and be successful?
3. Are you satisfied with the ways of assessment in the school?
4. Are you familiar with the concept of individualized teaching (e.g. individual education plans)?
5. Would you as a parent agree that your child, if necessary, would be involved in some sort of individualized teaching?
6. Are you informed about the work of pedagogical assistents? Do you know their role in the school?
7. *Did the quality of teaching improve in the past two year? If so, in which way?*

On remedial teaching:

1. In your opinion, does remedial teaching in the school meet its goals (the adoption of educational contents that students did not master during the regular class)?

2. If your child would show the need for additional support in a school subject (e.g. mathematics), would you as a parent recommend to your child to go the remedial classes at school, or you would hire a private teacher? Why?
3. In your opinion, is there any link between a student who attends remedial classes and his socio-economic status?
4. Are students who are attending remedial teaching in this school labeled as students who failed?
5. Is remedial teaching in this school a resource that can be used by all students? Without stigmatization?
6. Do students attend remedial teaching when they get bad marks or do they use this resource also as a prevention of failure?
7. *What has change in the implementation of remedial teaching in the previous two years?*

On involving parents and students:

1. *What has been changed in involving students and parents in the school life during the previous two years?*
2. In which extent are parents and students involved in decision making within the school?
3. Do you find that you as a parent have the responsibility, right and possibility to participate in defining policies and practices of this school? Have you ever tried to engage yourself in the work of the school?
4. In your opinion, does the school encourage, in a sufficient manner, the involvement of parents in its work? According to your information, how many parents are actively involved in the life of the school?
5. In your opinion, which is the best way of involving parents in the work of the school? Would you answer a call for more active involvement of parents, if it would be organized by the school?
6. Do you help other parents within the school concerning education of their children?
7. In which way you usually get informed about that what is going on in the school?
8. Do you think that the Students' Parliament is involved in decision-making at school? Do you think that students should be asked for their opinions regarding the teaching and learning activities at school?
9. In which way does the school encourage students to get involved in extracurricular activities?

On cooperation with the local self government and local institutions/organizations:

1. Are you informed about any kind of cooperation of the school with the local institutions/organizations or companies?
2. Is the cooperation with local institutions/companies an important criterion when enrolling your child to a school (e.g. secondary school having a good cooperation with companies)?
3. Do you know of any project implemented in your local community that encourages its work and improves the quality of teaching?
4. Which actions does the local self government take in dropout prevention?
5. Has the school improved its cooperation with local institutions and organizations concerning dropout prevention, and in general, in the previous two years? If so, in which way?

Appendix 8. Recommendations for Providing Additional Support to Students at Dropout Risk

Recommendations for design of support measures for students affected by the first group of risk factors for dropout

The first group of risk factors represents isolated effect of traumatic or negative experience which is not united with other risk factors. Having in mind that in this group of risk factors there is no impact of absenteeism and low achievement, but other risk factors are acting (e.g. teen pregnancy, repetition of the grade, exile, incomplete family, experienced trauma, etc., and that their impact on the students is strong and visible), depending on the factors that are acting it should be estimated whether to develop a plan of individualized measures for the students so that other risk factors would not activate, e.g. absenteeism, low achievement (e.g. by reactivation of the trauma, etc.). If there is a need for individualized measures of support, recommendations for planning the support are similar to the recommendations for the 5th group.

Recommendations for design of support measures for students affected by the 2nd group of risk factors for dropout

The second group of risk factors represents the existence of the impact of poverty in combination with irregular school attendance and low achievement. There are various recommendations for this group of risk, from obtaining basic financial conditions, adjusting the teaching to increasing of school attendance:

- Provide material support in the extent it is possible in order to improve the conditions in which the student learns (free lunch in the school, school supplies, textbooks, transport costs, clothing).
- Instruct parents in the procedures of obtaining social assistance (if the family meets the requirements and is not a beneficiary) and health insurance.
- Provide funding for family and child hygiene, bed linen, towels, blankets, sleeping bags.
- If students live in slums, it should be discussed with the authorities about building a bathroom with several shower cabins in the unhygienic settlement (in collaboration with other community agencies).
- Initiate municipal donations for improving living conditions.
- Cooperate with professionals concerning social integration of students.

Recommendations for increasing student achievement through the adjustment of teaching

- Use methods and techniques of interactive teaching (discussions, problem solving, expert teams, group work, work in pairs, etc.).
- Teach in a way that engages multiple senses (visual, auditory, kinesthetic), using adequate learning materials.

- Write the key points on the board and give an adequate overview of the main concepts of the lessons.
- Help the student to orally or in written make a review of key points.
- In addition to oral give also written instructions so that the student could view them again later.
- Provide examples to help students understand the material, set an example in a prominent place so that students can often look at it.
- Provide peer mentoring (e.g. appoint a friend willing to help doing homeworks).
- Use underlining, summarizing, separation to highlight the main ideas in the text.
- Divide the longer lectures on shorter sections.
- Expose in short the material to a student who was absent from school for longer time and give him a summary of the material.
- If you know in advance that a student will be absent from school (eg. the period of seasonal work, temporary departure from the city, etc.), prepare adapted learning materials and agree on a work plan with the student, as well as ways to support learning during this period (eg . exchange of information between the two school administration).
- Teach in advance or afterwards a (missed) hard lesson.
- Provide more simple texts from different sources that deal with similar topics as the texts from the program.
- Make with the student reviews and study gudies for each chapter.
- Make a glossary of terms and work on understanding the terms.
- Select suitable computer programs for exercising new skills or for gaining new basic skills for development of visual presentations and diagrams for developing and remembering concepts.
- Teach students strategies for remembering.
- Recongize the student's participation in the classroom and extracurricular activities and award him.
- Provide additional time to complete the task.
- Simplify the complex instructions, shorten assignments by broking down into smaller pieces.
- Request a smaller number of correct answers (quality vs. quantity).
- Reduce homework, simplify tasks, especially tasks that require a lot of reading.
- Monitor the preparation of tasks that the student does in his own pace (daily, weekly, bi-weekly).
- Ensure that the student receives clear, concise instructions for homework.
- Provide additional adjustments, for example. provide training in skills and learning strategies.
- Monitor, commend and reward the achievement of tasks at every class.
- Allow control exercises and tests with open books, notes, calculator, etc.
- Allow the student to use checklists, schedules, reminder cards, etc.
- Provide students also oral tests.
- Provide an opportunity for an oral amendment of written assignments.
- Allow printed instead of written letters in making assignments.
- Give tests that are done at home.
- Make frequent short tests instead of rare and extensive ones.

- Allow extra time for the test.
- Read and explain the student the questions from the test.
- Write answers to questions in the test instead of the students.
- Avoid pressure on students in relation to the time, competition, assessment.
- Provide support in organizing the learning.
- Establish a system to connect notes and tasks (make a scheme to help when to apply certain knowledge).
- Prepare in advance the schedule of learning and homework together with the student.
- Allow the student to hold the textbooks at school and to have an additional set at home.
- Develop a reward system for completing school work and homework.
- Send parents daily or weekly progress reports.
- Ensure that the student is sitting close to the teacher or a positive role model.
- Stand near the student when giving instructions or displaying material.
- Avoid distracting stimulation (eg. a mobile phone).
- Organize several work groups in the classroom.
- Regularly provide feedback on the performance of progression in learning.
- Work on professional orientation of students.
- Inform students and parents about scholarships and possible sources of support for continuing education.
- Support peer workshops on the importance of education.
- Provide an extended stay for the students, the library as a resource center and the formation of student “Corner "with the possibility of using ICT.
- Support the development of mobile school teams ("patronage" of learning).
- Organize workshops for students – learning to learn (techniques, self regulation – plans, goals, motivation, self evaluation).
- Use remedial classes to prepare the next lessons.
- Visit students at home for insight into future support.
- Provide homework at school with the help of peers.
- Involve also the pedagogical assistant as a support in leargning, if possible.
- Involve the student into extracurricular and activities outside the school.

Recommendations for increasing school attendance

- Clarify with the student nature of the problem and the causes of absenteeism and agree on how to change this behavior.
- Develop strategies to support regular school attendance for the student at risk (apply them, monitor the results, revise if necessary) - recording absences in specially designed forms that the school can produce and which can detect the causes of absenteeism.
- Identify the difficulties that the student has (non-involvement, failure in achievement) when transferring to the 5th grade of primary school and to the first year of secondary school, and apply special measures of support for this period.
- Ensure that the student feels welcome and accepted when in school.
- Use presence of students in the school for successful participation in education and school life and catch-up material, not only for the provision of formal assessment.
- Agree with the student on how to catch up material and the manner and time of assessment.

- Establish procedures for emergency response in case of school absenteeism of students.
- Know the causes of absenteeism and remove them if they are in the domain of school (fear of failure, fear of bad grades, fear of not being accepted, etc.).
- Provide information and support to parents to understand the purpose of individual support measures.
- Cooperate with parents on the development and implementation of support, considering the current and long-term needs of students and work that parents realize the importance of education.
- Link advice on how to increase achievements and advice on how to increase the student's attendance of the school.

Recommendations for design of support measures for students affected by the 3rd group of risk factors for dropout

The third group represents the impact of poverty in combination with behavioral probems and low level of peer acceptance. After getting detailed information on the student, it should be determined whether the problem in behavior stems from some sort of trauma or negative experience; if that is the case, the recommendations of the 5th group of risk factors should be also considered. Recommendations:

- Provide material support if possible (free lunch in the school, school supplies, textbooks, etc.).
- Eliminate the causes of behavior problem or reduce its effects by providing an appropriate environment for learning (interviews with parents, the inclusion of appropriate institutions for support, the inclusion of support of all teachers and peer teams).
- Support the student in using strategies of self control.
- Introduce a code of conduct together with students.
- Ensure that rules in the classroom are clear and visible.
- Organize counseling in the youth office for young people, or another local institution and organization.
- Assist peers to develop with the student a strategy for changes in his behavior.
- Use praise and avoid penalties.
- Award the student who improved his behavior.
- Give special privileges and positive incentives and speed up their implementation.
- Make "wise use" of negative consequences of the behavior problem, for example, drawing attention to possible negative outcomes, make an agreement relating to the reduction of behavior problem.
- Allow short breaks between tasks.
- Remind the student not to interrupt the work of the task (e.g. a variety of non-verbal signals).
- Strengthen the student's strengths through positive feedback, for example. assess the correct answers of students, not his faults.
- Facilitate movement in the classroom, the time when a student does not have to be in place (eg. send him to execute an order).
- Ignoring inappropriate behavior in the classroom unless drastically outside the limit of permissible.

- Make a contract with the students concerning some goal (or with the class if needed)[36].

Recommendations for design of support measures for students affected by the 4th group of risk factors for dropout

The fourth group of risk factors represents an expressed impact of poverty. Having in mind that this group refers to students who do not have problems of absenteeism and achievement, it is recommended to develop individualized measures of support to this group. Along with providing cooperation with the local institutions and organizations to obtaining social assistance and providing other types of financial and material support, what the school might do in addition for these students is to organize activities at the school level, such as peer support, cooperation with parents, involving of reconceptualized remedial teaching and other measures implemented at school level and which are meant for all students.

Recommendations for design of support measures for students affected by the 5th group of risk factors for dropout

The fifth group of risk factors represents the impact of traumatic or negative experience which probably "activates" irregular school attendance and low achievements. The web of risk factors from the 5th group is such that it should be worked to counteract the effects of traumatic or negative experiences and it could be expected that this would reduce the risk factor of low achievement in the school. Every traumatic or negative experience does not have the same impact on different students, so it is necessary to plan support according to the psychological-pedagogical profile of the student. It is important to take care that during the provision of individualized support it would be enabled an easier functioning of the student in the school. If there are negative experiences and eventually the trauma exits, it is recommended that the school refers to support of other institution, first of all of the Centre for Social Work.

High absenteeism and low achievements are in this case mostly caused by some traumatic or negative experience and therefore it is important to identify which experiences are in question and neutralize their effect. Recommendations:

- In cooperation with the student identify the causes of absenteeism and low achievement.
- Contact relevant services and find support for them (e.g. Center for Social Work).
- Prevent further exposure of the student to the effects of traumatic or negative experience, in the extent it is possible from the position of the school.
- Support the student in overcoming the consequences of the traumatic and negative experience by undertaking measure for empowering of self confidence, empathy, change of values, etc.
- Eliminate the causes of problems in behavior or reduce their effects by providing an appropriate environment for learning (interviews with parents, the inclusion of appropriate institutions for support, the inclusion of support of all teachers and peers volunteers)
- Use also the recommendations for increasing achievement and regular attendance of the teaching from the recommendations referring to the 2nd group of risk factors.

[36] Adapted from the Collection of Tools for Planning Individualized Education / Guidelines to Resources for Teachers (British Columbia, 2009).

- Include the student in the programme of violence prevention, if it is necessary.
- Enable gaining of certain health competencies.
- Instruct students to participate in workshops from the programe of psychosocial support.
- Extablish and obtain contact with teachers from the first cycle and teachers from the previous level of education.

Recommendations for design of support measures for students affected by the 6th group of risk factors for dropout

The sixth group represents the joint impact of all risk factors and students from this group are at highest dropout risk. As here all risk factors are working, it is necessary to consult all advices and recommendations for the development and implementation of individualized measures. In creating the measures, priority should have those measures that enable the realization of future measures (e.g. if the student's family is not a beneficiary of social assistance but meets all requirements, it is necessary to inform the parents about getting this type of support; also it is necessary, if possible, to ensure elementary conditions for learning – school supplies, textbooks, free lunch). Support should be asked also from the local community, the school staff should be alarmed and it is important to obtain support of all teachers so that the student would not interrupt education. The risk of dropout is the highest in this group and it is necessary to act as soon as possible, first of all to ensure basic conditions needed by the student, and the obtaining of these conditions should be linked with other school measures and with school attendance. It is necessary to encourage the students who leave for temporary stay abroad or periodically leave the school because of that or because of season work, to stay in the school and obtain them conditions for this stay, or ensure conditions for easier return to the school when conditions are met for it, by making a plan of catch up with the curriculum, increasing sensitivity of teachers and promoting the importance of education.

Recommendations for design of support measures for students affected by the 7th group of risk factors for dropout

The seventh group represents a strong impact of low achievements that may indicate learning difficulties, motivation problems, lack of developed learning strategies and/or low evaluation of education. The number of students under the impact of this combination of factors in the primary schools is relatively low and in their case it should be checked first of all if it is the result of a non recognized cause of learning difficulties (e.g. dyslexia, disgraphia, attention deficit disorder, etc.).

In case of secondary school students under the impact of this combination of risk factors, their number is high (in some schools nearly half of the students at risk are under the impact of this combination of factors), so it can be thought about whether there is a problem in certain inadequate school practices which "produce" these factors or risk factors derive from learning difficulties the student is facing. Recommendations for the reduction of the group of risk factors have been proposed in the recommendation relating to the 2nd group of risk factors.

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