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# The Impact of the National Programme for Reducing School Dropout on the Performance of Eighth Form Students in Romanian Language and Literature

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## Abstract

### Keywords:

National Programme for Reducing School Dropout, academic performance, 8th form, remedial education, national evaluation, mock exam, educational intervention

This research analyses the impact of the National Programme for Reducing School Dropout (NPRSD) on the academic performance of 8th form students, with emphasis on the results obtained in the subject of Romanian language and literature. The study is based on a pre-experimental design and was conducted in rural areas, involving two comparable educational units. The experimental group benefited from remedial and support activities within NPRSD, including additional preparation sessions, digital educational resources and a hot meal. The primary method of data collection was the analysis of school documents; the assessment tool was the National Evaluation mock exam, applied before and after the intervention. The results indicate a significant improvement in academic performance within the experimental group, reflected by an increase in the average marks and a reduction in the number of students with marks below the passing threshold. Statistical analysis highlighted a significant positive effect, supported by the t-test for paired groups and Cohen's d-index.

## 1. Introduction

The Romanian educational system's policies focus on personal and professional development and one of its essential components is school assessment, which aims to contribute to measuring progress, identifying educational needs, motivating students, providing feedback for teachers, standardizing learning, selection and professional orientation, certification of competencies and not least, improving educational policies.

Academic performance is a measurable indicator of a student's learning process, usually expressed through marks, test scores or other forms of assessment that reflect the level of knowledge, abilities and skills acquired in a particular field or educational programme (Harlen, 2018). These results are used to evaluate student performance, monitor academic progress and guide educational policies.

By analysing academic results, teachers can observe areas where students excel, as well as those in need of improvement. This process supports the development of personalised interventions, such as individualised learning plans, tutoring or support programmes (Black & Wiliam, 2018). School results allow comparisons between students, schools, regions and even between countries. These comparisons provide decision-makers with essential data for

analysing trends in education and for optimising the curriculum (OECD, 2021).

Academic performance is an important element in shaping a student's future, as high academic results are often associated with better career prospects, access to prestigious higher education institutions and long-term success (Guskey, 2019). Good marks can facilitate obtaining scholarships, access to competitive job markets and occupying leadership positions in various fields.

Universities, especially those with selective admission criteria, prioritise students with solid academic results. High marks and high scores in standardised tests increase the chances of admission to renowned institutions, which offer better resources, networking opportunities and professional development programmes. Numerous scholarships and financial support programmes are awarded based on academic merit. Future graduates with excellent results can benefit from funding, which reduces the financial burden of education and allows them to pursue advanced studies without accumulating significant debt (Sahlberg, 2021).

School performance plays an essential role in student assessment and career guidance. However, to obtain a complete picture of educational progress,



these must be analysed together with other factors, such as involvement, attitude toward learning and holistic development. Governments and educational institutions use the data about student performance to develop policies aimed at improving teaching quality, efficiently distributing resources and optimising educational outcomes (Sahlberg, 2021).

Although academic performance is a valuable indicator, it does not always reflect a student’s full potential. Factors such as creativity, critical thinking and emotional intelligence are not always discriminated in traditional evaluation systems. Studies show that higher educated people generally have greater earning potential, better professional stability and a superior quality of life. Early education academic performance can represent the foundation for lifelong learning and upward social mobility (Koretz, 2017).

Employers frequently consider academic performance when recruiting graduates, as good results indicate discipline, solid knowledge and problem-solving skills. Fields such as medicine, law and engineering place particular emphasis on academic achievements when evaluating candidates for internships, residencies or entry-level positions (OECD, 2021). Achieving high academic performance is often correlated with the development of valuable skills, such as critical thinking, time management and adaptability. These abilities are valued by employers and contribute to long-term professional success (Black & Wiliam, 2018).

**2. National Evaluation**

The National Evaluation represents an essential examination in Romanian education, addressed to 8<sup>th</sup> form graduates. It measures the abilities the students built during lower-secondary school and has a fundamental role in the high school admission process. It provides an objective evaluation of the skills and knowledge acquired during the lower-secondary school period and contributes to the regularising educational standards at national level. The exam is structured as follows:

- Written tests include Romanian language and literature and mathematics. There is an additional exam in mother tongue language and literature for students who study in their mother tongue.
- The tasks are formulated to evaluate theoretical knowledge and its application in practical contexts.

To prepare for the exam, participation in mock exams helps students become familiar with the exam format and manage their emotions. Consistent study, reviewing information and using test models from previous years are essential for obtaining good results. Support provided by teachers and access to online educational resources can improve performance. The results obtained in the National Evaluation influence the students’ choices regarding the high schools to which students can be admitted, thus determining their future educational path. Performance in this exam can contribute to motivating them to continue their studies.

Some adolescents may experience exam-related stress and anxiety, which is why developing techniques for managing emotions is essential. Differences in educational quality between schools can influence student preparation. Access to tutoring, educational platforms and additional support can help reduce inequalities. Digitalisation of the educational process can support students in preparing for the exam, by offering interactive resources for learning.

The exam design can be improved by continuously updating the curriculum in accordance with educational developments and requirements. Alternative assessment methods that emphasise practical skills and critical thinking, not just memorisation of information, should be considered. The National Evaluation represents an important stage in student education and proper preparation can significantly contribute to their success in continuing their studies.

**Table 1**

*2013-2024 National Evaluation timescale (Edupedu, 2024)*

2013-2024 National Evaluation timescale									
Year	Registered	Present	Turnout rate	Min. 5 averages	Min 5 averages rate	Below 5 averages	Below 5 averages rates	Average of 10	
2013	166,712	162,331	97.4%	123,194	75.9%	39,137	24.1%	856	
2014	165,188	160,011	96.9%	113,721	71.1%	46,290	28.9%	225	
2015	163,408	158,576	97.0%	125,840	79.4%	32,736	20.6%	456	
2016	153,673	148,648	96.7%	111,598	75.1%	37,050	24.9%	253	
2017	144,929	140,712	97.1%	108,294	77.0%	32,418	23.0%	497	
2018	150,603	142,847	94.9%	105,109	73.6%	37,738	26.4%	345	
2019	155,020	146,105	94.9%	107,000	73.2%	39,105	26.8%	459	
2020	172,543	160,663	93.1%	122,357	76.2%	38,306	23.8%	892	
2021	131,180	123,085	93.8%	94,660	76.8%	28,525	23.2%	132	
2022	155,561	148,494	95.5%	122,166	82.3%	26,328	17.7%	221	
2023	161,652	154,115	95.3%	117,507	76.2%	36,608	23.8%	429	
2024	160,467	152,903	95.3%	113,708	74.4%	39,195	25.6%	65	

According to the Ministry of Education, in the 2024 National Evaluation, out of 160,467 registered candidates, 152,903 attended all tests, with an attendance rate of 95.3%. Of the 152,903 candidates present, a number of 113,708 candidates (74.4%) obtained averages higher than or equal to 5 and 65 candidates obtained an average of 10.

The data presented above reveal alarming information. 39,195 students (25.6%) obtained results below 5, while another 7,564 did not even attend the exam. Failure to attend the exam and poor results can cause students not to follow the desired high schools or universities, limiting their educational options and favouring school dropout. There is also the risk that students who have not managed to obtain good results may be stigmatised by peers or society, which can lead to low self-esteem.

### 3. School dropout

School dropout is defined as the phenomenon in which a student leaves school before completing the necessary educational level, usually before obtaining a high school diploma or equivalent certification (Mihăilescu & Stan 2020). This can have multiple causes, including academic challenges, socio-economic problems and personal circumstances and its consequences can be long-lasting for both the individual and society.

Causes of school dropout:

- *Socio-economic factors*: Children from low-income families or disadvantaged backgrounds frequently face significant obstacles in accessing education. Financial difficulties, such as the inability to cover school-related expenses (uniforms, books, transportation) or the need to contribute to family income, can cause students to leave school prematurely, before completing their studies. Additionally, the lack of access to essential educational resources, such as qualified teachers, tutors or technology, exacerbates their challenges (Rumberger, 2011). Financial pressures and family responsibilities often prioritise other aspects at the expense of education, increasing the risk of school dropout.
- *Academic difficulties*: Students who face learning difficulties may feel disconnected from the educational process and may become overwhelmed. Poor academic performance, especially repeated failures, leads to frustration and loss of interest in learning. For some, learning difficulties or problems in a particular area deepen

these obstacles. Without adequate academic support – such as tutoring, mentoring or personalised learning strategies – they may end up dropping out of school (Bowers & Sprott, 2012). The emotional effects of poor performance and lack of confidence in their academic abilities ultimately contribute to the decision to drop out.

- *Socio-emotional factors*: Bullying, social isolation and lack of adequate peer support are significant factors contributing to school dropout. Victims of bullying, discrimination or harassment are more likely to disconnect from school and choose to leave it. Mental health problems, such as anxiety, depression and other emotional difficulties, can lead to a sense of alienation and isolation. These emotional obstacles prevent students from seeking help from teachers or colleagues, which can lead to an increase in the dropout rate (Doll, Eslami, & Walters, 2013). The lack of coping mechanisms and social skills makes it difficult for students to integrate and succeed in the school environment.
- *School environment*: The educational climate plays an important role in a student’s decision to stay in or leave school. A negative or hostile environment, which includes tense relationships between students and teachers, lack of opportunities for involvement in educational activities or inadequate school infrastructure, can contribute to feelings of alienation and frustration. When they do not feel respected, appreciated or supported, they are more likely to lose interest in learning and drop out of school (Lee & Burkam, 2003). The lack of extracurricular activities or initiatives to strengthen the school community reduces a student’s connection to the school, thus diminishing their desire to remain in the educational system.

These factors, often interconnected, make school dropout a complex problem. Effectively addressing it requires a holistic perspective that takes into account not only academic performance, but also social, emotional and environmental factors that influence student participation in education.

School dropout involves a series of consequences:

- *Limited career opportunities*: One of the most important consequences of school dropout is the narrowing of career options. Without a high school diploma or equivalent qualification, individuals face a reduced number of employment opportunities, especially in an increasingly competitive job market. Many jobs require at least

high school studies and those who do not have them often find themselves in poorly paid positions (Cohen & Besharov, 2002). This limitation affects not only immediate income but also career advancement possibilities, as many professions require additional education or specialised training. It thus means that all of these become inaccessible to those who have dropped out of school.

- *Increased risk of poverty:* Those who drop out of school are more exposed to the risk of economic instability. Research shows that people who do not complete their high school studies face a higher probability of living in long-term poverty (Bailey, 2007). Their limited education restricts their earning potential and without the necessary skills to access better-paid and stable jobs, many school dropouts face significant financial difficulties. This, in turn, leads to social exclusion, as students may experience difficulties in accessing basic services, social mobility or opportunities for personal and professional development.
- *Social and psychological impact:* School dropout can have serious consequences on psychological and emotional health. People who leave school early frequently face feelings of failure and decreased self-esteem, which can lead to mental health problems, such as anxiety, depression or social isolation (Barro, 2012). These difficulties can also affect relationships with family, friends and colleagues, creating a vicious cycle of social disconnection that can persist into adulthood. The loss of social connections and the stigma associated with dropout can make it difficult to reintegrate into educational or professional environments, reinforcing the feeling of inadequacy and exclusion.

These consequences highlight the long-term impact of school dropout, which extends far beyond the period of formal education and affects the individual's economic, social and psychological well-being. Combatting school dropout and supporting vulnerable students can significantly contribute to reducing these negative effects and creating opportunities for success for those most at risk. Some prevention and intervention strategies that could help address school dropout might be:

- *Early identification and support:* Schools can implement proactive measures to identify early on students at risk of dropping out of school, monitoring their academic performance,

attendance and behaviours to detect early signs of dropout. Once identified, they can benefit from personalised support, including tutoring, mentoring and counselling, to address their academic, social and emotional needs (Christenson & Thurlow, 2004). Intervention as early as possible can prevent their disconnection from educational activities and provide them with the necessary tools to overcome obstacles before dropout occurs. Personalised support increases their chances of success and helps build confidence in their abilities.

- *Engagement and motivation:* It is essential for students to remain engaged in their education to prevent dropout. Creating a learning environment in which they feel supported, appreciated and motivated is essential. This can be achieved by implementing personalised learning plans tailored to individual needs and learning styles, as well as integrating career counselling into their education. By helping them understand the connection between education and their professional future, they will be more likely to remain engaged in school (Fredricks, Blumenfeld, & Paris, 2004). Additionally, nurturing a culture of mutual respect, encouragement and active participation in the classroom can stimulate them to take responsibility in their learning process, thus improving their retention.
- *Community and family involvement:* Addressing school dropout requires an integrated approach which goes beyond school boundaries. Collaboration with families, community leaders and social services is crucial to understanding and addressing the root causes of dropout, such as family instability, financial difficulties or mental health problems. Schools should involve parents and guardians in the educational process, constantly inform them about their child's progress and provide them with resources for active involvement (Doll et al., 2013). Partnerships with local organisations can provide additional services, such as after-school programmes, counselling and financial help, which can ease external pressures on students and families, thus reducing the risk of dropout.

To combat this phenomenon, strategic and well-coordinated interventions within educational policies are necessary, targeting both the causes and consequences of school dropout, such as:

- *Educational reform*: Governments and educational institutions must focus on reforms that guarantee fair access to quality education for all students, regardless of their socio-economic status. These reforms must include investments in resources, infrastructure and teacher training to create an inclusive learning environment. Policies that promote personalised learning and address diverse needs can significantly reduce the school dropout rate (Rumberger, 2011). It is also essential to promote an inclusive school culture, where everyone, regardless of their background, feels supported and welcome, to prevent their disconnection from education.
- *Alternative pathways*: Given that traditional education is not suitable for every student, offering alternative pathways represents an important strategy for reducing school dropout. Vocational training programmes, online learning options and second-chance programmes for those who have dropped out of school can provide opportunities to succeed in a way that matches their interests and abilities. These alternatives can provide students with practical skills, certifications or qualifications that prepare them for the job market or for further education and can help them gain confidence in their own abilities (Mikulecky, 2008). By offering these alternatives, those who do not fit into the mainstream educational system are given a real chance to reach their full potential.

By implementing early interventions, increasing student engagement and making systemic changes to educational policies, school dropout rates can be reduced, providing those at risk with the tools and support necessary to succeed in both education and professional life.

#### 4. Remedial Activities

In addition to school dropout, students' learning difficulties represent causes of low performance. The learning difficulties are varied, as some students may have different academic results even though they are part of the same class and are involved in the same learning process. However, when these difficulties are severe and the students do not receive adequate support, they risk not passing the important exams in a student's life.

Selvarajan (2022) argues that remedial teaching represents an effective solution for students with low performance. Thus, identifying those with learning difficulties, applying remedial teaching, along with periodic assessments and analyses, are all essential to

improving their results. Moreover Huang (2010) emphasises that the purpose of remedial teaching is to offer students more opportunities to consolidate fundamental knowledge in core subjects, so that they can reach minimum academic standards. To ensure the success of this process, it is crucial for teachers to adapt their teaching to the specific needs of each student.

Remedial teaching is intended for children who face learning difficulties that affect their academic progress. In remedial teaching, it is necessary for the teacher to choose the most appropriate methods for the needs of the class. These methods should strengthen the foundation of learning, support students in overcoming learning difficulties and allow them to develop their potential.

Munene and Peter (2017) emphasised the importance of detailed programme planning, careful selection and grouping of students, using a variety of materials, appropriate training of teachers, as well as rigorous monitoring and evaluation of the entire process. Additionally, teachers must identify the diverse educational needs of the students before planning remedial lessons, so that they can create strategies which support effective learning. Given that they have different learning styles, it is essential for teachers to create diversified learning activities.

Remedial courses are offered to those who have learning problems or difficulties that prevent them from mastering the material taught in the lesson. According to Munene and Peter (2017), children who require remedial learning have poor memory, short attention span and are easily distracted by other things, have relatively low comprehension power and show lack of motivation for learning.

Students should be selected based on their performance on unit tests administered by the teacher responsible for each subject. Thus, those who obtain results below the benchmark established by the school should benefit from remedial courses. Bettinger and Long (2009) stated that remedial groups bring together individuals with similar needs, which allows teachers to adapt better their teaching to the students' needs and offer other types of support.

Rai and Penjor (2020) conducted research that reveals the impact of remedial activities on students from Tshaphel Middle School, Bhutan, involving students who obtained scores below the benchmark on the class test. The students participated in remedial English courses (7<sup>th</sup> formers) and geography (7<sup>th</sup> and 8<sup>th</sup> formers). The results of the study reveal student

satisfaction with the remedial activities and improvement of skills in those with low performance.

The results were similar in studies conducted by Louch (2014), who investigated the impact of the remedial English course on improving the English language competence of first-year students at the United States International University. Using a quasi-experimental design, the study follows 46 unprepared students, admitted to USIU in the summer semester of 2011, who failed to reach the threshold for university courses on a placement test (pretest) and who took a remedial English course for 14 weeks. After completing the course, students were given the same test (post-test). The significance of the changes generated by the experiment was evaluated by comparing the scores obtained on the pretest and post-test. In addition, comparisons were made between the scores obtained on the composition and grammar sections of the pretest and post-test, as well as between the variations in scores, highlighting a substantial improvement in results.

A positive result was also obtained by Jarrar (2014), who studied the impact of remedial courses on the performance of fourth-form students in the public schools in Ramallah district, who showed poor results in English. Additionally, he investigated the influence of gender and group variables on their performance. The researcher created an English proficiency test, consisting of 59 items, which evaluated four language skills. He also conducted interviews with all English teachers. The data were collected and analysed and the results indicated that the remedial activities had a significant impact on improving the level of English language learning, especially in speaking skills, which was also confirmed by the responses of the interviewed teachers.

Remedial education, provided consistently and sustainably as an integral part of extensive educational programmes, leads to significant results in the level of student preparation, even in a year like 2020, when most school activities were conducted online. An analysis of the impact of World Vision Romania Foundation programmes (2020), which include components of remedial education, shows that 35% of the students showed improvement in academic results and 53.5% maintained their performance at the same level, despite the fact that remedial education activities were conducted online in the second half of the year.

As suggested by the above-mentioned studies, remedial activities play a crucial role in education, especially for those who face learning difficulties,

with a significant impact on improving their academic performance and overcoming educational obstacles. Learning difficulties are often caused by the lack of a solid foundation and these courses offer the opportunity to strengthen fundamental knowledge. Moreover, those who feel overwhelmed by learning difficulties may develop low confidence in their own abilities.

Additionally, remedial activities offer teachers the possibility to adapt learning to the individual needs of each student, providing them with additional support that leads to better performance. Students who do not receive additional support may end up feeling frustrated and dropping out of school. Remedial courses contribute to preventing this phenomenon, offering them the opportunity to improve their performance and complete basic education.

Not only can these activities help understand the subject matter better, but they can also contribute to the development of useful long-term learning skills, such as critical thinking organisation and study management. Remedial activities favour student collaboration, creating an environment in which they can learn from each other and improve their understanding of the addressed topics. Remedial education offers beneficiaries the possibility to continue learning, even after encountering difficulties, helping them stay on the right track in terms of their academic progress.

## **5. National Programme for Reducing School Dropout (NPRSD)**

The National Programme for Reducing School Dropout (NPRSD) is part of the National Recovery and Resilience Plan (NRRP) and aims to combat school dropout in Romania, with emphasis on reducing the negative impact on education and development of younger generations. The main purpose of the programme is to decrease school dropout significantly in secondary education, especially in areas with economic and social difficulties. The programme targets students at risk of dropping out due to factors such as economic difficulties, social or family problems. A key objective is reducing school dropout by up to 25% in certain educational institutions.

NPRSD supports schools in developing and implementing innovative educational projects adapted to the needs of vulnerable students, with the aim of preventing dropout, and includes training sessions for teachers, aimed at improving teaching methods and supporting those in difficulty.

This programme provides funding for schools involved in activities aimed at reducing school dropout. For example, schools can request significant funds for educational projects targeting students from disadvantaged communities. The allocated money can total 300,000 euros, depending on the needs of each educational institution.

The entire concept emphasises the importance of collaboration with families and local communities to identify the causes of dropout and provide additional support. In some cases, schools can collaborate with non-governmental organisations and local authorities to offer support services, counselling and material aid for families in difficulty.

The National Programme for Reducing School Dropout encourages the integration of modern technologies, such as tablets, laptops and online platforms, to facilitate access to education and stimulate participation. Moreover, it promotes the development of online courses and alternative educational solutions for students who cannot attend traditional school for various reasons.

NPRSD includes a rigorous monitoring system that allows evaluation of the programme's progress and measurement of reduced school dropout among vulnerable children. Relevant data on school dropout rates will be collected to adjust strategies and improve the programme's efficiency.

The programme represents a crucial initiative in support of equitable access to education for all students in Romania. By funding innovative educational projects, supporting teachers, collaborating with families and using modern technologies, this programme aims to prevent school dropout and provide an opportunity for disadvantaged children to continue their studies and develop. NPRSD also aims to improve performance in the National Evaluation and other educational examinations.

## 6. Pre-experimental Stage

### 6.1. Research Premises

The analysis of the impact of the National Programme for Reducing School Dropout (NPRSD) on the results of eighth-form students can be motivated by the desire to discover ways to improve students' educational outcomes, in terms of both marks and attendance, as follows:

1. *Evaluating programme effectiveness:* NPRSD aims to reduce school dropout and improve academic performance. Analysing its impact on

eighth-form students gauges the extent to which the programme fulfils these objectives.

2. *Identifying factors that influence school results:* NPRSD aims to support children from vulnerable backgrounds. Analysing the effect of this support on their school performance, especially on those about to graduate lower-secondary education, can highlight factors that play an essential role in their success.
3. *Supporting educational decisions:* Information obtained from the impact analysis can guide authorities in creating additional educational policies and measures to improve performance, especially in preparing students for the National Evaluation exam.
4. *Measuring the impact on educational equity:* An important objective of NPRSD is reducing educational inequalities. By analysing the results of eighth-form students, it can be observed whether the programme has contributed to diminishing differences between those from disadvantaged backgrounds and those from more advantaged backgrounds.
5. *Monitoring national educational progress:* NPRSD is part of a broader national educational strategy. Evaluating the effects of the programme can help track progress in education and identify areas that need improvement.

In conclusion, analysing the impact of NPRSD on the results of eighth-form students is essential in measuring the programme's success, understanding the influences on school performance and contributing to the development of more effective educational strategies.

### *The purpose, objectives and research question*

The purpose of the research is to identify the extent to which NPRSD influences the performance of eighth-form students in Romanian language and literature.

The objectives of this research are:

- analysis of social backgrounds;
- comparison of results between the county mock exam and the national mock exam;
- identification of factors that contributed to any changes;
- issuing conclusions and recommendations.

Research question: To what extent does NPRSD influence the results of eighth-form students in the National Evaluation mock exams?

### 6.2. Hypothesis and research variables

We assume that the National Programme for Reducing School Dropout determines a significant increase in the average marks obtained by eighth-form students in the National Evaluation mock exam, as compared to schools that do not benefit from this programme.

#### Research Variables

Independent variables (predictors):

- National Programme for Reducing School Dropout;
- Socio-cultural factors (parents' education level, economic status, etc.);
- Characteristics of students from different social backgrounds (ethnicity, social status, belonging to disadvantaged communities, etc.).

Dependent variable (criterion):

- School results (marks)

Moderating variables:

- Student gender (results may vary by gender);
- Age (the relationship between socio-cultural factors and performance may be different for younger children in comparison to adolescents).

Control variables:

- School type (urban/rural);
- Access to additional educational resources (tutoring, libraries, etc.).

### 6.3. Research sample

In this study, we analysed the data collected by applying the chosen methodology in two schools with similar characteristics, located in rural areas. The research focuses on two middle school eighth form classes. Both schools have approximately 450 students and are located in two neighbouring communes, near a well-developed county seat, with high economic potential and diverse employment opportunities. The majority of students come from financially stable families, with parents who have completed at least secondary education.

In these schools there is also a Roma ethnic community that preserves specific cultural traditions. Many Roma parents do not have a stable job and their

income largely comes from social benefits due to their lack of education, with few of them having completed primary or lower-secondary school. Their culture has not encouraged an interest in education and this aspect is passed on to new generations, making the teaching process difficult and having a negative impact on students' school results, as well as on their motivation for learning and personal development.

### 6.4. Analysis of curricular documents

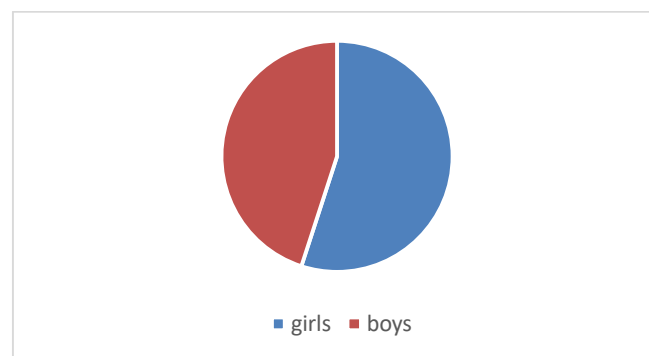
We consider it appropriate to use the method of analysing curricular and school documents in our research to investigate the data from official sources, including documents and curricular products, in order to achieve the purpose and objectives of the study. This method includes examining materials such as framework plans, school curricula, calendar planning, didactic activity projects, guides, tutorials, worksheets, students' psycho-pedagogical files, internal regulations, transcripts, school registers, reports, school performances, minutes, abstracts, papers, observation sheets and reports of teaching activities, evaluation sheets and reports, monographs, etc. (Pălăşan, 2015).

In this research, the purpose of applying the present method is to analyse the students' results from the experimental and control samples and to compare them. Thus, the school registers of the two classes represented the main source for conducting the analysis. By consulting the register, we also examined the distribution of children by sex and age. Additionally, we studied their psycho-pedagogical files, based on which certain observations were formulated.

According to Figure 1, the experimental sample comprises 20 students –9 boys (45%) and 11 girls (55%)– aged 13 to 15 years.

Figure 1

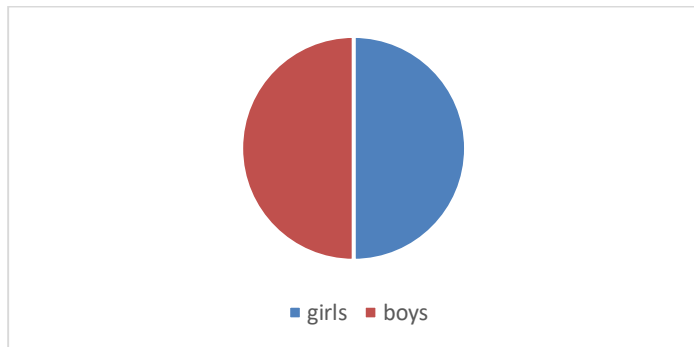
Gender ratio of the experimental sample



According to Figure 2, the control sample comprises 18 students – 9 (50%) are boys and 9 (50%) girls – aged 13 to 15 years.

**Figure 2**

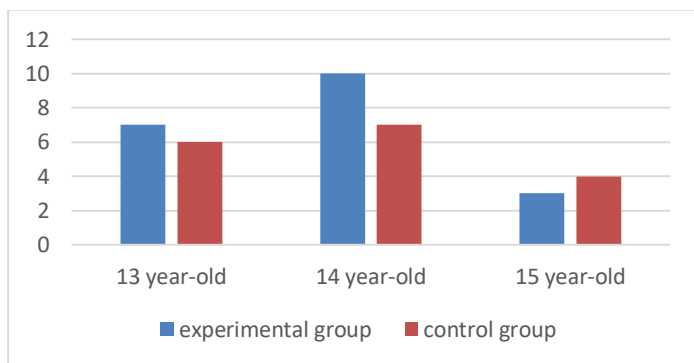
*Gender ratio of the control sample*



The age distribution of students is approximately similar in both the experimental and control groups, with most having already turned 14. Naturally, there are also cases where students either started school later or repeated a year, and these students are already 15 years old.

**Figure 3**

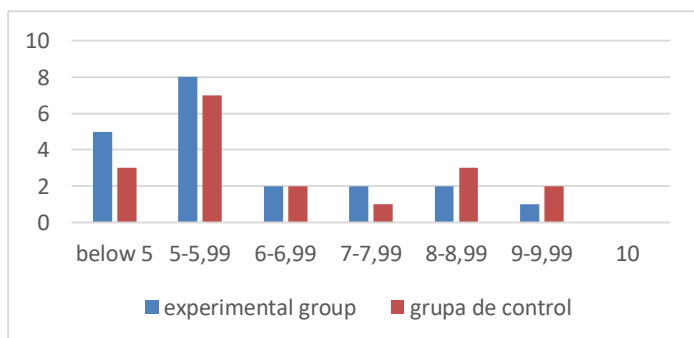
*Student ratio by age*



School documents were also analysed to identify the proficiency level in Romanian language and literature of the two groups in module II of the 2024-2025 school year. It was found that the average mark in the experimental group is lower than that in the control group.

**Figure 4**

*Average marks in Romanian language and literature - module II*



### 6.5. Implementing initial testing

Mock exams for the National Evaluation in the eighth form are essential in preparing for the final exam, offering multiple benefits for students, teachers and parents. These tests, which take place before the official exam, aim to provide a clear assessment of the level of readiness.

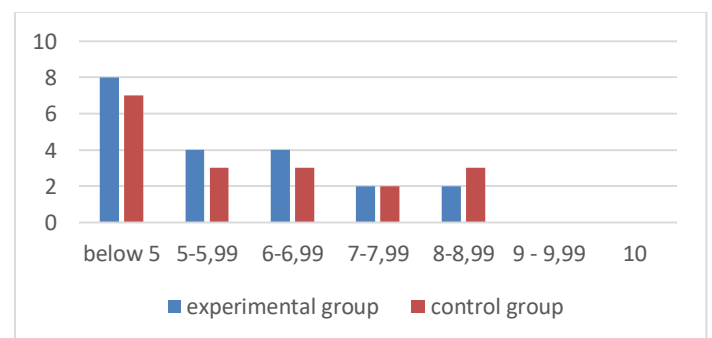
Mock exams offer students the opportunity to check their knowledge and skills in an environment similar to that of the final exam. These represent an opportunity to identify areas of both strength and in need of improvement. Mock exams help students measure their progress and understand what they still need to learn. Participation in these mock exams contributes to reducing stress and anxiety related to the actual exam. Being exposed to the atmosphere of an official exam, with limited time, similar subjects and strict rules, students become more familiar with the process and learn how to manage their emotions more effectively on exam day.

The results of the mock exams are valuable for teachers and parents alike, providing a clear picture of the students' preparedness level. This information helps identify students who need additional support before the national exam and adjust educational strategies. Following results analysis, students can work on their weaker areas. Additionally, these data become fundamental for creating a personalised study plan, focused on subjects and skills that need improvement.

For this purpose, at the level of Maramureș county, mock exams for eighth formers had been suggested for the 2025 National Evaluation and organised between December 16 and 19, 2024, with the written test in Romanian language and literature taking place on December 16. The results of these mock exams served as a starting point for the design and development of activities for NPRSD, implemented in the experimental group.

**Figure 5**

*County mock exam results (initial testing)*



## 7. Experimental stage

Based on the analysis of county mock exam papers, which identified content areas requiring deeper understanding, a schedule of remedial activities was developed for the experimental group as part of NPRSD, with the following objectives:

- Reducing absenteeism and school dropout by creating an environment that supports student well-being and by organising extracurricular activities. Being offered such activities, students will be encouraged to participate actively in classes and become more involved in educational activities.
- Developing ICT skills among students and teachers alike, through the use of equipment, purchased with project money, and the already available resources. In the context of today's society, digitalisation and adaptation to new technologies play an essential role in the educational process. It is crucial for both students and teachers to improve their ICT skills and each teacher must integrate digital resources into lessons, create attractive and interactive activities.
- Increasing the participation rate of the eighth-form graduates in the National Evaluation by organising remedial and support activities. These will contribute to the academic progress of each student, improving both school performance and results in the National Evaluation. Thus, students will be motivated to participate actively in educational activities and final exams, supporting their own educational and professional progress.

### 7.1. Project beneficiaries, target group and project scope

The project beneficiaries are:

- all eighth-form students;
- students' parents;
- teachers involved in the project.

The target group includes students who are in at least one of the following situations:

- do not receive education-related parental support;
- have more than 30 unexcused absences in module II;
- have repeated at least one school year;
- are at risk of failing or repeating a year due to school results;

- are at risk of dropping out of school due to being more than 3 years older than the class average;
- fail to achieve the minimum level of skills specific to the class they are in;
- require literacy or numeracy activities;
- require prevention activities.

### 7.2. Remedial and support activities, hot meals included

Remedial activities take place throughout the school year, for the entire duration of the project, with teaching activities frequently adjusted according to the feedback generated by the results from standardised tests and mock exams. Following the county mock exam on December 16, the planning of activities was readjusted according to students' needs, thus conducting a new phase of the programme during module III and part of module IV (January 8 - March 14, 2025).

The experimental group takes part in weekly remedial activities in Romanian language and literature. These sessions are scheduled on two days each week, after regular classes. During each session, participants spend two hours with the Romanian language and literature teacher reviewing essential content, completing exercises and practical applications, and receiving additional explanations. They are also provided with a hot meal, which not only improves health and physical well-being but also contributes to boosting their academic performance, supports social integration and has a positive impact on absenteeism and dropout rates.

Moreover, NPRSD provides teachers with resources, applications, subscriptions, licenses and educational software that support the educational processes. Integrating digital resources into the instructional-educational process not only optimises the learning experience but also contributes to the development of fundamental skills for students' future, preparing them for an increasingly digitised world. The content of the National Evaluation exam in Romanian language and literature, covered within the NPRSD, is structured according to the national curriculum and focuses on assessing the competencies acquired throughout lower-secondary education.

## 8. Post-experimental stage

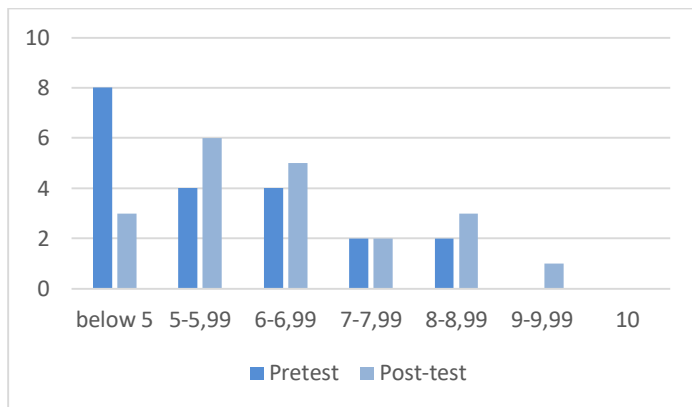
The post-experimental stage of this research aims to evaluate the effects of the intervention, namely the NPRSD (National Programme for Reducing School Dropout), based on the results of eighth-form students.

The instrument used for this stage was the National Evaluation mock exam in Romanian language and literature, which took place on March 17, 2025.

The National Evaluation mock exams are organised to prepare eighth-form students for the final exam, giving them the opportunity to become familiar with its structure and requirements. Thus, students had the chance to experience the real conditions of the exam, as they experienced the same rigorous conditions they encountered during the county mock exams (pre-experimental stage). Also, the results provide both students and teachers with a clear picture of the areas where adjustment and in-depth practice of learning strategies are needed. It also offers a pertinent perspective in terms of students' evolution or involution.

**Figure 6**

*Evolution of experimental group results (pretest – post-test)*



Following the results of the National Evaluation mock exam, the experimental group showed an upward evolution of marks. The worrying number of students who obtained marks below 5 in the county mock exam had decreased, thus there were more students who had obtained good and average results as compared to those who did not pass the test. Moreover, if at the county testing there were no students who obtained marks above 9, now one student obtained a favourable result (9.70). Statistically speaking, the results improved.

To interpret the results, we conducted a broader analysis aimed at determining whether there was a statistically significant difference between the scores obtained in pretesting and in post-testing. For this, the paired sample t-test was used. The analysed data included 20 participants, each assessed before (pretest) and after (post-test) a certain intervention.

*T-test results:*

- t-statistic: 7.72

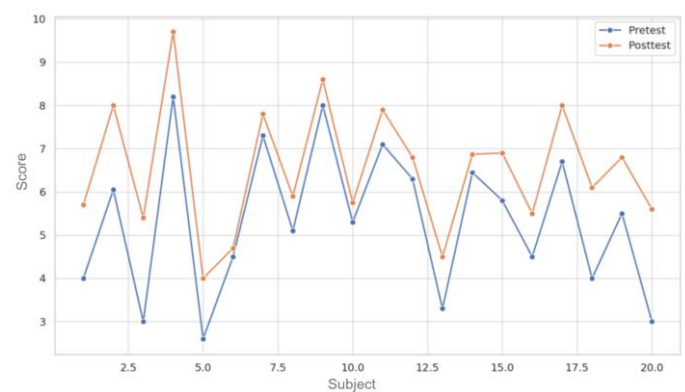
- p-value: 2.85e-07

The p-value is much smaller than the usual significance threshold ( $\alpha = 0.05$ ), indicating that the difference between pretest and post-test scores is statistically significant. Thus, we can conclude that the intervention/testing had a significant effect on the participants' results.

The graph below presents a comparison between the individual pretest and post-test scores for each subject. A general trend of score increase after intervention can be observed, which supports the statistical conclusion that post-test scores are significantly higher. Most subjects recorded higher scores in post-test, which indicates an improvement as a result of NPRSD. This improvement is supported by the T-test result, which indicated a statistically significant difference between the two sets of scores.

**Figure 7**

*Comparison of pretest and post-test scores*



In addition to statistical significance, it is important to consider the extent of the effect and the context in which the intervention took place. These results can support the effectiveness of the implementation of NPRSD and can serve as a basis for subsequent decisions in the educational or research processes.

To complete the statistical analysis, we also calculated the extent of the effect using Cohen's d-index, which provides an estimate of the practical importance of the observed difference between pretest and post-test scores. The obtained Cohen's d-value is: 1.73. This indicates an appreciable effect, according to the standard interpretive guide (0.2 = small, 0.5 = medium, 0.8 = large). A Cohen's d of approximately 1.73 suggests that the intervention had a considerable impact on participants' results, beyond mere statistical significance.

Table 2, below, provides an overview of the descriptive statistics for the pretest, post-test scores and the difference between them:

**Table 2**

Descriptive statistics for pretest, post-test scores and the difference between them

Category	N	Mean	Std. Dev.	Min	25%	50%	75%
Pretest	20	5.33	1.70	2.60	4.00	5.40	6.51
Post-test	20	6.53	1.48	4.00	5.57	6.45	7.83

For the differential scores (post-test – pretest), the statistics are as shown in Table 3:

**Table 3**

Differential scores (post-test – pretest)

N	Mean	Std. Dev.	Min	25%	50%	75%	Max
20	1.19	0.69	0.20	0.57	1.15	1.55	2.60

As observed, the mean score in pretest was approximately 5.34 and in post-test it increased to 6.53, with an average difference of 1.19 points. The lower standard deviation in post-test suggests greater consistency in results. The maximum value of the difference was 2.6 points, while the minimum was only 0.2 points. These data support the conclusion that most participants registered notable improvements.

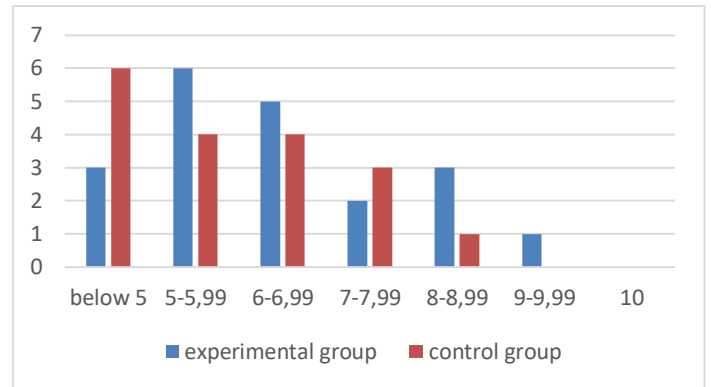
The results of the experimental group, where the experimental plan – NPRSD – was implemented, compared to the results of the control group, highlight that both groups showed an evolution when compared to the initial testing, but the much more noticeable positive impact is on the experimental group. Statistically, the experimental group has fewer students who obtained marks below 5, so the pass rate for the National Evaluation is higher, therefore more favourable to the experimental group.

Regarding the results above 5, the situation is similar: the experimental group shows more papers marked above the threshold average as compared to the control group, where the results, although slightly increasing, do not show remarkable changes. We can also highlight that only in the experimental group is there a mark above 9.

To distinguish clearly the effect of NPRSD on student results, we calculated Cohen’s d value and found it to be: 0.79, which, according to the standard guide, indicates a medium-sized effect.

**Figure 8**

Results of the National Evaluation mock exam (experimental and control group)



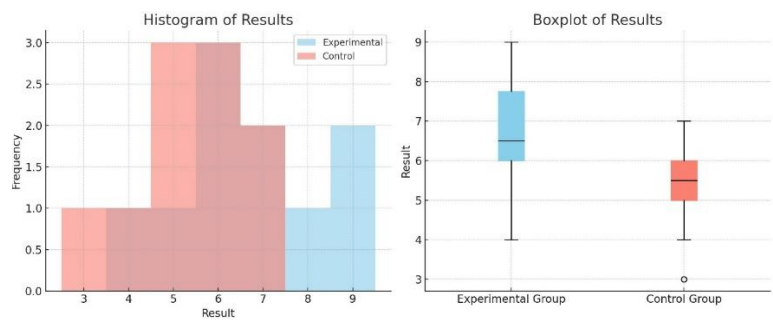
**Table 4**

Summary of statistical indicators

Indicator	Value	Interpretation
t (statistic)	2.46	Non-significant difference
p (value)	0.019	$p > 0.05$
Cohen’s d	0.79	Medium effect

**Figure 9**

Histogram and boxplots for the two groups



The histogram is a type of graph that shows the frequency of the resulting values within each group.

*Experimental group:*

- The distribution is relatively balanced, with a peak in the 5-6.5 area, where most values are concentrated.
- There are some higher values (e.g., 8.0 and 9.7), which can be considered high values, but not necessarily extreme outliers.
- The distribution has a slight asymptotic character to the right, which may indicate a tendency to obtain higher scores in this group.

*Control group:*

- Has a more dispersed distribution, with a smaller peak around the value 5-6.
- A smaller value appears, 2.45, which visibly stands out and can be considered an outlier.
- The distribution seems flatter than that of the experimental group, signalling a greater variation in results.

Boxplots (box-and-whisker diagrams) are useful for observing the spread of data, the median and extreme values, so we can observe:

*Experimental group:*

- The median is situated around the value 6.8, which indicates higher central results as compared to the control group.
- The box (interquartile range) is narrower, indicating a greater concentration of data around the median.
- No values are present outside the whiskers.

*Control group:*

- The median is lower, around 5.6.
- The box is wider than in the experimental group, which shows a greater dispersion of results.

There is an atypical value at the bottom (around 2.45), which can influence the group average.

**9. Conclusions**

The results obtained following the implementation of the National Programme for Reducing School Dropout among eighth-form students indicate a series of significant transformations regarding academic performance and mark distribution in the Romanian language and literature. The assessment conducted in the post-experimental phase through the National Evaluation mock exam on March 17, 2025 allowed for a relevant comparative analysis of the progress made, providing concrete data on the effectiveness of the educational intervention. Thus, we can observe:

*9.1. Significant improvement of results in the experimental group*

The analysis of the evolution of the students' marks in the experimental group (graph no. 6) reveals a clear trend of improved academic performance. The number of students who obtained marks below 5, viewed as an indicator of the risk of school failure, decreased significantly after the intervention (from 8 to 3). At the same time, there was a steady increase in

the number of students in the average- and high-performance categories (intervals 5-5.99 and 6-6.99). Also noteworthy is the appearance of a mark in the 9-9.99 band, which was not present before, suggesting not only an increase in the general average but also facilitating access to excellence.

*9.2. Comparing the progress of the experimental group with that of the control group*

The data presented in graph no. 7, which reflects the distribution of mock exam marks between the experimental and control groups, highlights the superior impact registered among students who benefited from NPRSD intervention. The control group, although registering a slight improvement, maintained a large number of students in the below 5 category (6 students) and the results above the passing average did not show a significant increase. In contrast, the experimental group managed to reduce school failure significantly and increase the proportion of students with above-average results, indicating more noticeable and better-supported progress.

*9.3. Reduction of school dropout risk*

The decrease in the number of students with results below 5 has direct implications for the risk of school dropout, which is one of the central objectives of NPRSD. Increased pass rates reflect not only an improvement in students' knowledge and skills but also an increase in school motivation and self-confidence, which are essential factors in preventing early school leaving.

*9.4. Effectiveness of mock exams as a diagnostic and intervention tool*

The use of National Evaluation mock exams in both stages (pre-experimental and post-experimental) proved to be a valuable tool for both assessing the progress and adjusting educational interventions. These have allowed the identification of learning gaps, providing concrete and immediate feedback on the effects of the implemented programme.

*9.5. Confirmation of the positive impact of structured and targeted interventions*

The positive evolution of the experimental group confirms that structured educational interventions, methodologically supported and consistently applied, can significantly contribute to increasing school performance, especially among vulnerable students or those at educational risk. The success achieved is not only due to additional preparation but especially to a

systematic approach focused on the students' real needs.

## 10. Research limitations

Despite the encouraging results obtained, this research presents a series of limitations that must be considered when interpreting and generalising the conclusions. Firstly, the study has a pre-experimental design, which implies a lack of randomisation and rigorous control over external variables. Thus, it is possible that contextual factors, such as family support, teacher attitudes or individual student motivation, may have partially influenced the results. Additionally, the limited sample, consisting of only two classes in the rural area, restricts the possibility of extending the conclusions to a broader population.

The specific socio-cultural context of the analysed schools, including the presence of a Roma ethnic community and the influence of a nearby city with high economic potential, generates a particular educational reality that is not representative of all areas in Romania. Also, the relatively short implementation period of NPRSD activities – only a few months – does not allow for a complete assessment of the programme's long-term impact, especially on reducing school dropout.

The limitations are further amplified by the data collection method, based primarily on the analysis of school documents and mock exam results. Qualitative data regarding motivation, emotional state or the students' and teachers' perceptions of the educational intervention are missing. Moreover, the research focuses exclusively on the students' performance in Romanian language and literature, without capturing the evolution in other subjects or the development of relevant transversal competencies.

In conclusion, although the results highlight a positive impact of NPRSD, they should be interpreted with caution, considering the methodological, contextual and applicability limitations of the research.

## 11. Recommendations

Following the results obtained from the implementation of the National Programme for Reducing School Dropout (NPRSD), it is recommended to extend its application to as many educational institutions which face a high risk of school dropout as possible. Priority should be given to schools in disadvantaged areas, where socio-economic difficulties and lack of resources consistently affect students' participation and academic performance. The positive experience demonstrated within the

experimental group supports the idea that structured and adapted support can generate significant changes in educational progress.

Also, a deeper personalisation of educational interventions is necessary. Each student has different learning needs and rhythms and remedial activities should be designed based on a correct and detailed diagnosis of the difficulties encountered. Adapting content and teaching methods to the students' learning styles and their actual level of preparedness increases their chances of achieving real and sustainable progress.

Another important recommendation is ensuring a continuous process of monitoring and assessing the results of students involved in such programmes. The use of periodic testing, mock exams and formative assessments allows for rapid adjustment of educational activities and highlights areas that require additional interventions. Progress evaluation should not be limited to academic results but should also include indicators of motivation, involvement and attendance.

In addition, continuous professional development of teachers involved in programme implementation is essential. Teachers play a decisive role in the success of educational interventions and their training should include competencies related to remedial education, the use of digital technologies in teaching, communication with families and working with students at educational risk. A well-prepared teacher can effectively adapt methods and create a favourable learning environment for all students.

Active involvement of parents and the community in supporting education is another key-factor. The school-family relationship must be strengthened through constant communication, counselling and support in solving difficulties that arise in the students' educational journey. Collaboration with local authorities, non-governmental organisations and other institutions can bring additional resources, such as hot meals, psychological counselling or extracurricular activities that complement the support offered by the school.

Last but not least, it is recommended that the recovery approach be complemented by promoting a culture of excellence. Students with high potential, even though coming from disadvantaged backgrounds, must be encouraged and supported to achieve high performance. Remedial education should not be limited to compensating for deficiencies but

should create contexts in which each student has the chance to reach their maximum potential.

### Authors note:

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