

The Challenges of the Education System in Romania

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Abstract

The purpose of the research was to analyze the challenges of the education system in Romania on the infrastructure side.

In order to find out what are the challenges on the infrastructure side of the education system in Romania, we applied an online questionnaire to the teachers in the pre-university education system in Romania.

The research indicated that there are enough school facilities, enough teachers and enough students.

The teachers also mentioned that they are satisfied with the conditions and the facilities provided.

We aim to create a theoretical model regarding the challenges faced by the education system in Romania on the infrastructure side and to come up with a series of recommendations on how Romanian pre-university schools can be improved.

Key words: school, teacher, student, school facilities, school conditions.

J.E.L. classification: I21, I25, P17.

1. Introduction

Formal education is a crucial part of a student's development and aims to promote the student's full holistic growth. At the same time, formal education prepares students for a methodical investigation of reality and solutions to the current problems of life, both for themselves and for society (Mayya et al., 2022).

A 2020 study demonstrated that reducing class sizes in schools is a strategy that is often considered successful for improving student outcomes (Köhler, 2020). Because smaller classrooms provide better learning opportunities, the teacher-student relationship is better developed, more individualized and student-centered instruction occurs, and there is also a decrease in disruptive student behavior.

The study by Adamu et al. (2020) indicated that teachers with large class sizes face challenges in successfully teaching children to read. So teachers face challenges in providing quality instruction. In areas where class sizes are large, schools may be poorly equipped with learning materials and teachers tend not to have sufficient academic training to teach their subjects.

Another 2006 study showed that education is a basic element of society and is the foundation of democratic choice. The wide gap in educational opportunities between countries is one of the root causes of global inequality. The study concluded that people can contribute and benefit from globalization only if they are endowed with knowledge, skills and values and with the necessary capabilities and rights to pursue their basic probabilities (Bakhtiari and Shajar, 2006).

After querying the Google Academic search engine on the keyword "school infrastructure Romania", the results did not indicate any results following the query.

Because there are very few specialized studies on the challenges of the pre-university education system in terms of infrastructure, we further propose to analyze the challenges of the Romanian education system on the infrastructure side.

2. Research methodology

The purpose of the research was to analyze the challenges of the education system in Romania on the infrastructure side.

In order to find out what are the challenges on the infrastructure side of the education system in Romania, we applied an online questionnaire to 345 teachers from the pre-university education system in Romania.

The teachers received 7 questions that referred to: the number of school units, the number of teaching staff, the number of classrooms, the number of students, the quality of the conditions in the school where they teach, the facilities available in the school where they teach, the types of labs and labs owned by the school where they teach, the types of clubs and co-curricular activities the school has.

The data analysis was carried out in SPSS version 26.

3. Findings

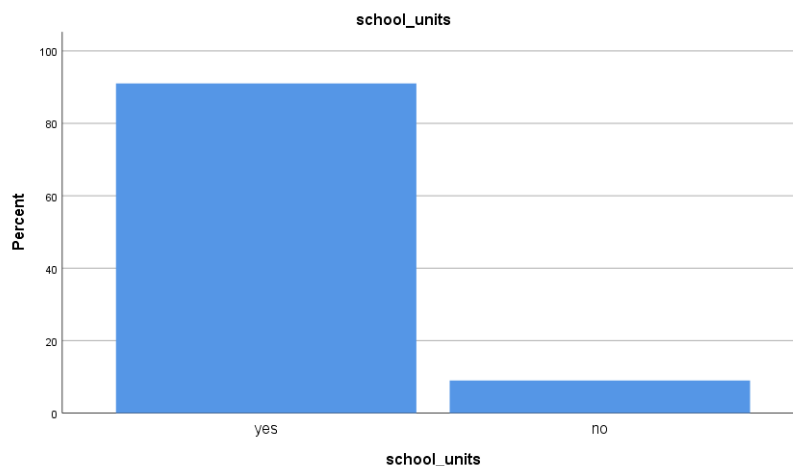
To question no. 1, are there enough school facilities in your area for students, 91% of teachers said yes there are enough school facilities, while 9% of teachers said there are not enough school facilities.

Table no. 1 School units

		school_units			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	yes	314	91.0	91.0	91.0
	no	31	9.0	9.0	100.0
Total		345	100.0	100.0	

Source: the author.

Figure no. 1. School units



Source: the author.

Regarding question no. 2, do you consider that there is enough teaching staff in the school where you teach in relation to the number of students, 40.3% of teachers agreed that there is enough teaching staff in the school where they teach in relation to the number of pupils, 33% of teachers and - they expressed total agreement that there are enough teaching staff in the school where they teach in relation to the number of students, 11.6% of teachers were neutral in expressing their opinion, 11.3% of teachers totally disagreed that there are enough teaching staff in the school where they teach

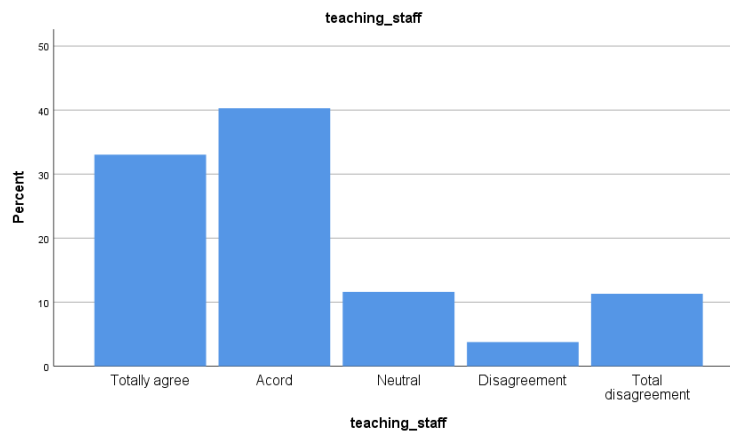
relative to the number of students, and 3.8% of teachers disagreed that there are enough teaching staff in the school where they teach relative to the number of students.

Table no. 2 Teaching staff

		teaching_staff			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	Totally agree	114	33.0	33.0	33.0
	Acord	139	40.3	40.3	73.3
	Neutral	40	11.6	11.6	84.9
	Disagreement	13	3.8	3.8	88.7
	Total disagreement	39	11.3	11.3	100.0
	Total	345	100.0	100.0	

Source: the author.

Figure no. 2 Teaching staff



Source: the author.

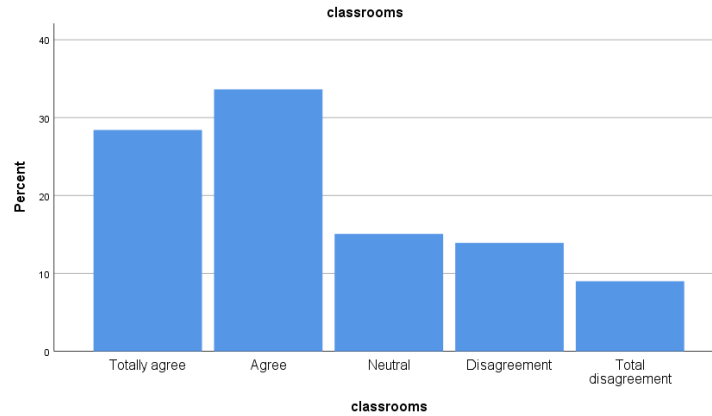
For question no. 3, do you think there are enough classrooms in the school where you teach in relation to the number of students, 33.6% of teachers agreed that there are enough classrooms in the school where they teach in relation to the number of students, 28.4% of teachers expressed total agreement that there are enough classrooms in the school where they teach in relation to the number of students, 15.1% of teachers were neutral in expressing their opinion, 13.9% of teachers disagreed that there are enough classrooms in the school where they teach relative to the number of students, and 9% of teachers strongly disagreed that there are enough classrooms in the school they teach relative to the number of students.

Table no. 3 Classrooms

		classrooms			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	Totally agree	98	28.4	28.4	28.4
	Agree	116	33.6	33.6	62.0
	Neutral	52	15.1	15.1	77.1
	Disagreement	48	13.9	13.9	91.0
	Total disagreement	31	9.0	9.0	100.0
	Total	345	100.0	100.0	

Source: the author

Figure no. 3 Classrooms



Source: the author.

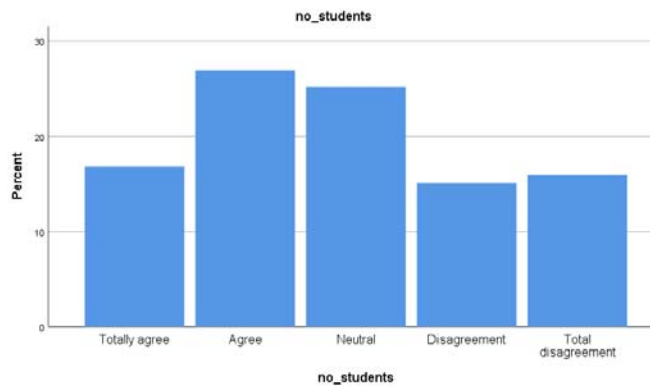
In the case of question no. 4, you consider that in the school where you teach there are enough students, according to the number of places in the classrooms, 27% of the teachers agreed that in the school where they teach there are enough students according to the number of places in the classrooms, 25.2% of the teachers were neutral in expressing their opinion, 16.8% of the teachers expressed their total agreement in the school where they teach there are enough students according to the number of seats in the classrooms, 15.9% of the teachers disagreed total in the school where they teach there are enough students according to the number of seats in the classrooms, and 15.1% of the teachers disagreed in the school where they teach there are enough students according to the number of seats in the classrooms.

Table no. 4 Number students

		no_students			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	Totally agree	58	16.8	16.8	16.8
	Agree	93	27.0	27.0	43.8
	Neutral	87	25.2	25.2	69.0
	Disagreement	52	15.1	15.1	84.1
	Total disagreement	55	15.9	15.9	100.0
	Total	345	100.0	100.0	

Source: the author.

Figure no. 4 Number of students



Source: the author.

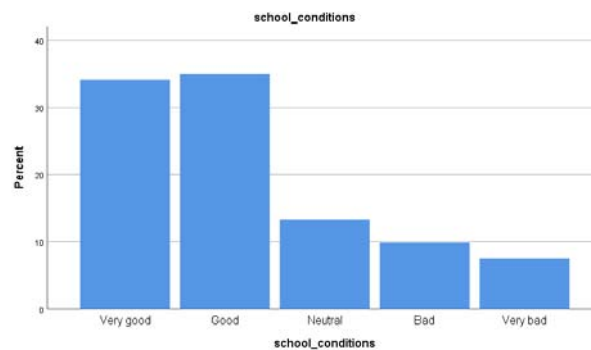
To question no. 5, how do you evaluate the quality of the conditions in the school where you teach, 35% of the teachers said that the quality of the conditions in the school where they teach is good, 34.2% of the teachers said that the quality of the conditions in the school where they teach is very good , 13.3% of the teachers were neutral in expressing their opinion, 9.9% of the teachers said that the quality of the conditions in the school where they teach is bad, and 7.5% of the teachers said that the quality of the conditions in the school where they teach is very bad they teach.

Table no. 5 School conditions

		school_conditions			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	Very good	118	34.2	34.2	34.2
	Good	121	35.1	35.1	69.3
	Neutral	46	13.3	13.3	82.6
	Bad	34	9.9	9.9	92.5
	Very bad	26	7.5	7.5	100.0
Total		345	100.0	100.0	

Source: the author.

Figure no. 5 School conditions



Source: the author.

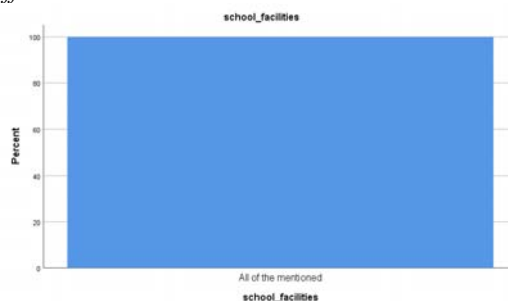
Regarding question no. 6, what are the facilities of the school where you teach, all the teachers stated that they have close to the means of transport, canteen, laboratories, gym, educational clubs, parking, relaxation space, medical assistance.

Table no. 6 School facilities

		school_facilities			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	All of the mentioned	345	100.0	100.0	100.0

Source: the author.

Figure no. 6 Teaching staff



Source: the author.

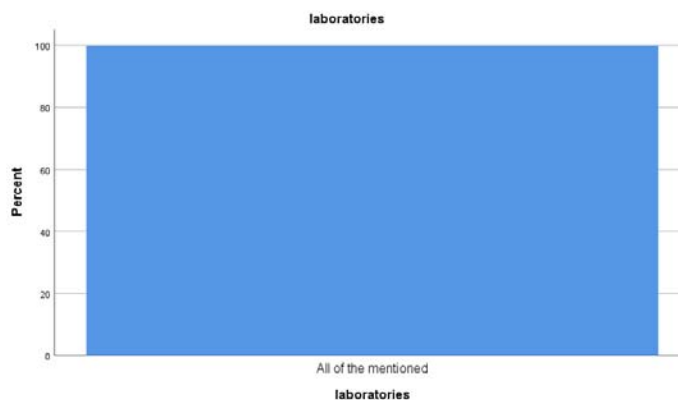
For question no. 7, what kind of laboratories and offices does the school where you teach have? You can choose more than one answer or all, if the school has all these types of labs and labs, all teachers said they have all the labs: chemistry, geography, history, mathematics, foreign languages, physics and music.

Table no. 7 Laboratories

		laboratories			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All of the mentioned	345	100.0	100.0	100.0

Source: the author.

Figure no. 7 Laboratories



Source: the author.

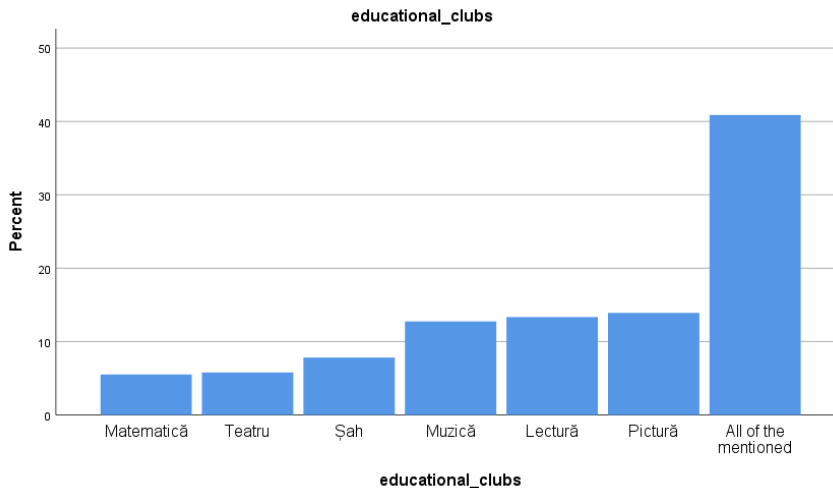
In the case of question no. 7, what kind of optional educational clubs/activities does the school where you teach, 40.9% of the teachers mentioned all: math, drama, chess, music, reading and painting; 13.9% of teachers mentioned painting, 13.3% of teachers mentioned reading, 12.8% of teachers mentioned music, 7.8% of teachers mentioned chess, 5.8% of teachers mentioned drama, and 5.5% of teachers mentioned mathematics.

Table no. 7 Educational clubs

		educational_clubs			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Matematică	19	5.5	5.5	5.5
	Teatru	20	5.8	5.8	11.3
	Șah	27	7.8	7.8	19.1
	Muzică	44	12.8	12.8	31.9
	Lectură	46	13.3	13.3	45.2
	Pictură	48	13.9	13.9	59.1
	All of the mentioned	141	40.9	40.9	100.0
	Total	345	100.0	100.0	

Source: the author.

Figure no. 7 Educational clubs



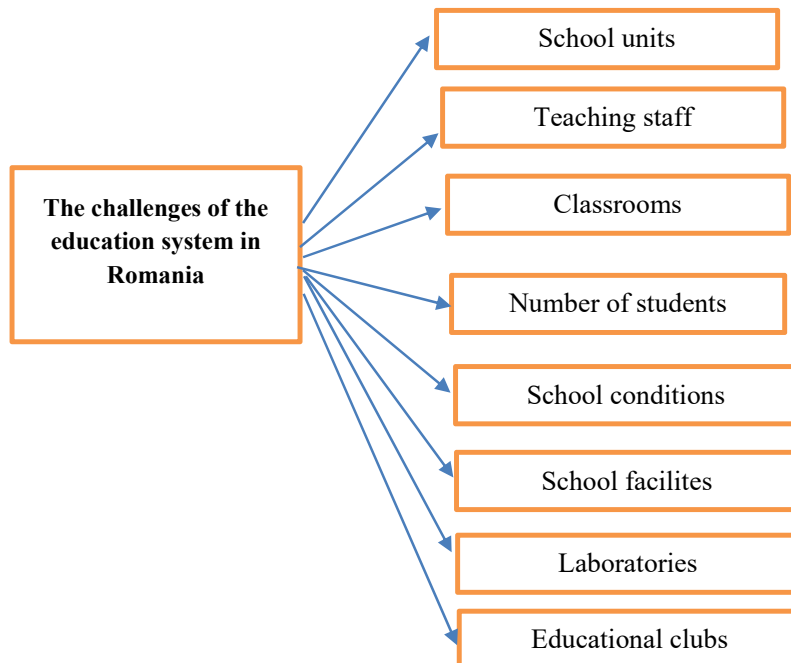
Source: the author.

4. Conclusions

The purpose of the research was to analyze the challenges of the education system in Romania on the infrastructure side.

We propose to create a theoretical model regarding the challenges faced by the education system in Romania on the infrastructure side entitled “The CES model”.

Figure no. 8 The CES model



Source: the author.

The data from this study cannot be generalized as life in an urban school is very different from life in a rural school. Urban schools are much larger, with a much larger number of students per year, equipped with science and computer labs, math clubs, film, art or theater. In contrast, rural schools are smaller, with some villages offering only the 4 years of education, while the rest of studies are offered in a larger nearby village and have only one teacher for all students (generally under 10 students in total).

The number of students in Romania experienced a sudden decrease as a result of the decrease in the birth rate and the increase of emigrant families. The alarming decline in the number of students, especially by more than 1 million in peri-urban areas, has been attributed to several factors, including migration to foreign countries, the lack or ineffectiveness of demographic policies to increase the birth rate, and inconsistent economic measures to support small and medium-sized enterprises and, occasionally, even incorrect policies in the field of school organization (Amariei, 2020).

Although the teachers had no objection to the infrastructure part of Romanian schools, we believe that funds are needed to improve the system of pre-university school buildings, as well as the creation of school facilities, equipment and instruments for physics, chemistry, biology and geography, the creation and improvement of sports halls and the planning of the amount and value of maintenance, restoration and new constructions, for the pre-university school buildings, necessary for the normal development of the teaching process.

It must also prioritize the primary objectives of the pre-university school building system related to thermal insulation and address any gaps in relation to norms, standards and criteria regarding: capacities; class sizes; and the number of students per class. These actions must be taken to create a favorable long-term climate for the administration and management of the pre-university school building system that meets real needs, best practices and EU standards.

Teachers should have the right resources to help students prepare for future careers in STEM (Science, Technology, Engineering, and Math) fields, including environmentalists, computer specialists, robotics engineers, and others. To meet their needs, special labs are needed to encourage different types of interactions between students and teachers.

For example, the computer lab could have workstations suitable for digital creativity and 3D printing.

The science lab that is focused on environmental science, could include subjects such as ecology, plant science, zoology, mineralogy, oceanography, soil research, and others.

5. Acknowledgement

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