COMPARATIVE ANALYSIS ON THE QUALITY OF EDUCATION IN RURAL OF CLUJ-NAPOCA METROPOLITAN AREA

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Abstract: *The research project aims to address a specific problem - the quality of rural education as a public service in correlation with the possible factors that would influence the phenomenon studied, customized in the rural part of Cluj-Napoca Metropolitan Area. Education in the peri-urban areas of municipalities today faces problems related to the inability of local administrations to manage the services and may impair the quality of life. The comparative analysis will concern the identification of the satisfaction level of the population with respect to the educational services in the communes that make up the Ring I and the Ring II through a questionnaire addressed to the population, the budget analysis regarding the impact at the level of the administrative-territorial units analyzed, the correlation of education with dimensions of quality of life identified through an index. The main conclusions will help to identify, improve and integrate the strategic development perspectives to reduce certain existing rural-urban disparities, needed for both researchers and decision-makers.*
Keywords: *quality of education, rural development, metropolitan zone.*

1. INTRODUCTION

The diversity of the problems existing in the community, the complexity of the situations, the number of actors involved but also the number of those affected are the factors that render predictability in the analysis of public policies. The disparities between the urban and rural areas involve the analysis of education as a complex, multidimensional and multidisciplinary problem. The main reforms initiated over time, both in the educational field and in the public administration should have improved the results in the field of education (Mărginean & Balașa, 2002).

According to the reports prepared by the European Commission, half-yearly, Member States that joined the EU after 2004 have undergone substantial administrative reforms as part of the preparation for EU accession and aimed at modernizing the policy-making process, improving effective coordination and creating a new one. merit-based public administrations but also the improvement of public services.

It is generally accepted that institutions have become more open and transparent, access to services has been increased, and their quality has improved. However, systemic analysis of reforms in the field of public administration, responsible for providing and meeting the needs of the citizen, is difficult to analyze in a context in which the

disparities and many variables that make up the quality of services are cross-sectionally studied.

In a recent study (Hammerschmid et al., 2013) analyzing the results of the reforms at European level highlighted the degree of deterioration of certain elements that make up the results of the reforms: quality of services, fairer treatment of citizens, equality between cost and efficiency, higher transparency and external openness, innovation but also the effectiveness of policies had the highest improvement scores (over 4, on a scale from 1 to 7, where 1 = severe damage to 7 = significant improvement). Participation and involvement of citizens, reduction of internal bureaucracy but also social cohesion remained with a rather low score.

For example, rural life has become increasingly relocated, especially as agriculture continues to decline (Lowe & Ward, 2009). As was the case in the United Kingdom, low performing regional economies are considered to constrain state activity as a whole, thus receiving less public resources to remedy the situation, resulting in inefficient allocation of other resources and investments contributing to external negative effects, such as congestion in urban areas (Porter et al, 2004).

Education in rural areas, especially in the peri-urban area of municipalities, is facing problems related to the inability of local administrations to manage school units and their related infrastructure (Isserman, 2009). The dynamics of education in rural areas cannot be linked to a certain political regime. The development of the rural environment knew the strongest dynamics of the capitalist regime and continued in the first decades of the communist regime. (Mănescu et al, 2015, p.265). The Romanian villages are very diverse if we analyze different internal elements, of particularity, such as strengths or weaknesses but also in different contexts, viewed as opportunities (related to mobility, accessibility or good development in the last period) or risks (incapacities and limits management and affecting a fairly large population). Moreover, the sociological results are not in favor of a correlation between the increase of the quality of education in the rural environment and the measures, the public policies in the educational field.

In the rural environment, various indicators are analyzed, of which the most relevant and accessible is the dropout rate. In many cases in the rural areas, the participation in the initial education is high, but most of the times unfinished, the children interrupting their studies after the first elementary classes and rarely resuming their studies after certain periods of interruption. (Mănescu et al, 2015, p.266). At the same time, there is an interconnection between the problems and concerns that affect the sustainability of the rural or regional area, and for this reason, the first attempts are those of outlining complex programs, equally for the support, understanding or functioning of the educational units but also of the local communities.

Considering some research conducted on the intervention strategies regarding the increase of the quality of education in the rural environment through interventions in the area of teaching or stimulating programs (Reid et al., 2008, 2010; Green & Letts, 2007, 2008), the current approach regards the rural part of the Cluj-Napoca Metropolitan Area with the cultural and geographical and cultural particularities in correlation with possible methods of intervention.

The main challenge in providing quality educational services in the remote communities of the cities or in the peri-urban area is still present and current, in the context in which the economy and development of the areas is not unitary. For example, in 2001, the term "periurban territory" is first introduced (Law no.350 on spatial planning and urbanism), being defined in Annex no.2 as "the surface around the municipalities and cities, delimited by specialized studies, within which relations of interdependence are created in the economic field, of the infrastructure, trips for work, insurances with green and leisure spaces, insurances with agri-food products, etc.". The term "periurban territory" is often used in this law together with that of "metropolitan territory", which is defined as "the area around large urban agglomerations, delimited by specialized studies, in which mutual relations are created of influence in the field of communication, economic, social, cultural and urban infrastructure. Usually the limit of the metropolitan territory exceeds the administrative limit of the locality and can exceed the limit of the county of which it is part. Although the difference is strictly related to the size of the core city, the purpose of establishing them was to access European funds at the initiative and based on the agreement between the local authorities. But the metropolitan areas were also encouraged by the local authorities, willing to provide real estate, economic or social opportunities, and to have any kind of growth, be it demographic either (Clark et al, 2018).

1.1 Particularities of the rural area of the Cluj-Napoca Metropolitan Area

In the contemporary world of education and schooling, rural schools and communities are highlighted both as "insults" and "officially called" by the metropolitan pole as deficient, backward and socially undesirable (Reid et al., 2010: 265).

This overcoming of stereotypes evoked symbolically in the descriptions of rural "problem" in education is essential to support and enhance the diversity of rural communities. Another author, Bourdieu, in relation to the social space (report of policies for production, place and people), considered the "problem suburb" or "ghetto" the spaces that were presented not as models of good practice, but a general assumption, for this reason many of the spaces in around these cities today, too, they benefit from such assumptions (Bourdieu, 1999: 123).

Looking at the overall problem of developing and balancing the rural-urban relationship, an interesting study is that of Smętkowski (2013: 145-155), who stated that in the countries of Central and Eastern Europe the component of regional development explains more than one third of the variation of all the factors of that development and is most strongly correlated with human capital resources, partially expressed in terms of quality of education.

The cited author also shows that metropolitan areas are developing endogenously as a fashion, while the development of non-metropolitan (rural) areas is exogenous, resulting from the dissemination of progress even from remote metropolises.

As a city of growth, according to the Government Decision no.998/2008, Cluj Napoca responds to important socio-economic criteria, identified as:

- the potential for economic development (high degree of functional specialization);

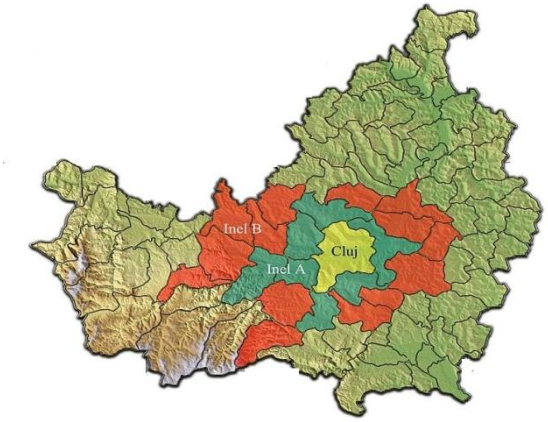
- research-innovation capacity (universities, research institutes, centers of excellence,

scientific nuclei with a critical mass of high quality research, which have the capacity to keep up with advances in science and technology);

- adequate business infrastructure (industrial parks, incubators, scientific and technological parks that ensure the commercialization of research results);
- business environment and culture based on the diversity of business relationships and social connections;
- accessibility (road, rail, air, sea);
- the public services offered (health, cultural infrastructure);

According to the integrated Strategy for the development of the Cluj Metropolitan Area, the same factors determined the establishment of a strong relationship of a strong center - rural hinterland, the area being made up of Cluj Napoca and the 18 communes. Their degree of development, predominantly high, as well as the restriction of the urban expansion within the administrative limits of Cluj Napoca due to the topography elements, generated a strong peri-urbanization effect (Integrated Strategy for Metropolitan Area Development, p.23). The same document states that since there are structural, functional, socio-demographic and topographic differences in the Metropolitan Area, a modeling of these areas was necessary. The development trend is clearly pronounced in the direction of EV, thus being able to delimit an area called the first ring of development, comprising the communes from the first crown (Florești, Baciu, Chinteni, Apahida, Feleacu, Ciurila and the second ring formed by Gilău, Gârbău, Vultureni, Borșa, Bonțida, Jucu, Căianu, Cojocna, Aiton, Tureni, Petreștii de Jos, Ciurila.

Figure 1 Cluj Metropolitan Area, communes classification in strategic areas Ring 1 (A) and Ring 2 (B)



Source: The Intercommunity Development Association Cluj Metropolitan Zone.

The Intercommunity Development Association Cluj Metropolitan Zone represents the associative framework and the main source of projects. It was founded in December 2008 by the association of Cluj-Napoca with the territorial-administrative units in the

proximity area. The total area of the Cluj-Napoca Metropolitan Zone is 1,603 km2, occupying 24% of the territory of Cluj-Napoca County, but concentrating 59.87% of the county's population in relative values of 379,705 inhabitants. (Population and Housing Census, 2011). Considering the ring structure of the Metropolitan Area, within the 30 km radius of Cluj-Napoca, the following two territorial areas were delineated as a preliminary working tool:

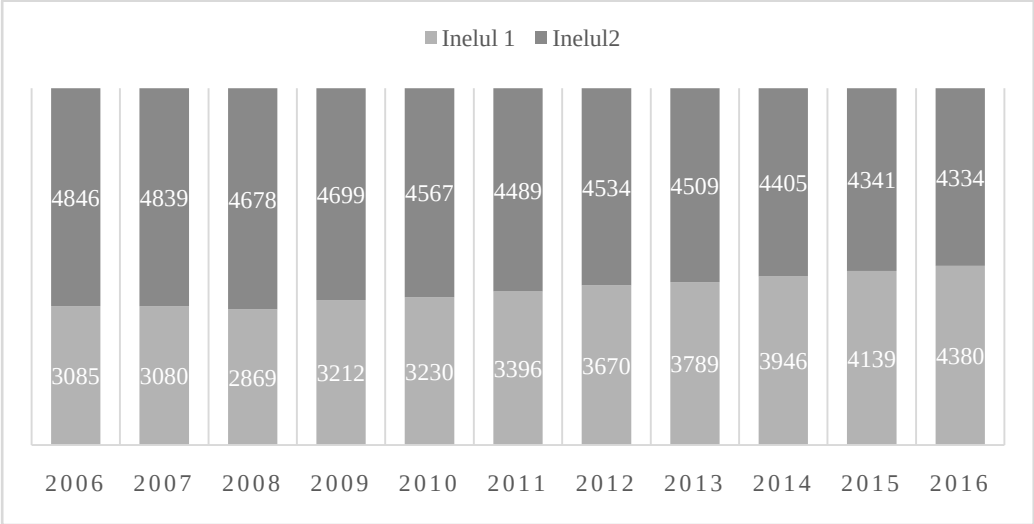
1. The first crown of communes, the 1st Ring, comprising the communes in the vicinity of Cluj-Napoca and located fully or almost completely within the 40-minute isocrone: Floreşti, Baciu, Chinteni, Apahida, Feleacu.

2. The second crown, the 2nd Ring, the outlying communes: Gilău, Gârbău, Vultureni, Borşa, Bonţida, Jucu, Căianu, Cojocna, Aiton, Tureni, Petreştii de Jos, Ciurila, Săvădisla, Sânpaul.

Access to city functions, as well as increased rural-urban mobility, have improved aspects of quality of life in rural areas adjacent to the city, but the extent of the impact can hardly be identified. From the analysis of the data generated by the National Institute of Statistics, positive population dynamics in Cluj-Napoca (2.9%) and from the 1 ring of communes in the period 2006-2014 indicate the largest population growth in the metropolitan area. The data identifies significant increases in the communes around the municipality of Cluj-Napoca: Apahida - 52.4%, Baciu - 30.3% with the mention that the percentage of Floresti commune exceeds 150%. The relevance of these increases and implicitly the concern to outline a quality of life perspective is also reflected in the evolution of the natural increase correlated with the population. For the city of Cluj-Napoca, a situation is generated that presents positive values every year, except for 2006. Although the situation is positive, the growth is not absolutely linear, proving also the years 2012, 2014, but also 2016. The variables that determine the change of the value of the natural increase is related to changes at the legislative level, more permissive or oriented to support the establishment of a family, a better standard of living, etc. For the commune of Florești, part integrated in the metropolitan area of Cluj-Napoca we have a linear, positive evolution of the natural increase. Florești commune benefits primarily from the advantage of the site, being in the immediate proximity of Cluj-Napoca, an advantage that has already been explored and rationally chosen for housing alternatives.

The area of educational services, from the analysis of working documents and plans made so far focuses exclusively on the development and modernization of the educational infrastructure in the rural area, although the first investment priority (2014-2020) is the development of a strong university centre in the city of Cluj-Napoca.

Figure 2 The evolution of the school population from the total population. Ring 1 and Ring 2, 2006-2016



Source: INSSE data processing

Regarding the evolution of the school population in Ring 1, we can talk about a progressive growth of it. This increase could be explained by the higher level of education of the population, but also by ensuring a quality educational environment. An inverse situation with the one presented above, in Ring 2 we encounter an involution of the school population, their number decreasing almost progressively during the analyzed period.

Table 1 Total expenditure on education in the communes of the Cluj-Napoca Metropolitan Area

	Total expenditure	Education expenditure	Percentages
AITON	1.869.967	74.458	3,98
APAHIDA	27.244.602	2.234.224	8,20
BACIU	16.786.000	1.276.327	7,60
BONTIDA	7.010.478	421.966	6,02
BORSA	4.786.872	406.593	8,49
CAIANU	6.398.171	340.359	5,32
CHINTENI	10.248.527	704.220	6,87
CIURILA	5.387.298	904.571	16,79
COJOCNA	5.422.855	902.756	16,65

FLORESTI	47.127.472	3.096.690	6,57
GILAU	13.088.531	1.823.021	13,93
GIRBAU	8.022.183	373.632	4,66
JUCU	16.788.071	1.100.875	6,56
PETRESTII DE JOS	6.984.397	281.138	4,03
SAVADISLA	7.738.292	646.245	8,35
SINPAUL	5.821.616	131.254	2,25
TURENI	8.383.647	284.351	3,39
VULTURENI	5.689.655	93.764	1,65

Source: Directorate for Fiscal Policies and Local Budgeting

A first analysis related to the quality of certain services could be reproduced from the budget analysis. In 2018, the majority of the communes in the metropolitan area are having difficulties in allocating financial resources for educational services. Only for Ciurila, Cojocna and Gilău the percentages of the total expenses for education exceed 10%, while for the other communes, the expenses are below this weight, the lowest being the one recorded in Vultureni (1.65%), a municipality located in the Second Ring. These expenses are also justified by the possible investments made by the administrative-territorial units for the identified communes.

2. SURVEY AND METHODOLOGY

Measuring education quality is a complex process which depends on very many factors; therefore, it should be assumed that the determinants listed here do not exhaust the list of factors affecting the quality of educational processes, but merely signal the complexity of the issue (CzyĬewski & Polcyn, 2016). Some studies about education quality take into account the standard of schools' technical equipment and pupils' access to computer technologies. Other reports provide information on the effect of financial resources on education quality, again revealing a link between education quality and social capital. It must be borne in mind, however, that social capital also affects education quality directly. Education quality may not be a result of the amount of financial expenditure, but may be strongly modified by cultural issues and the ineffectiveness of educational resources (Heyneman 1997: 449-466). Moreover, the educational effects achieved may be very significantly dependent on the availability of school resources (Gamoran, Long, 2006 apud CzyĬewski).

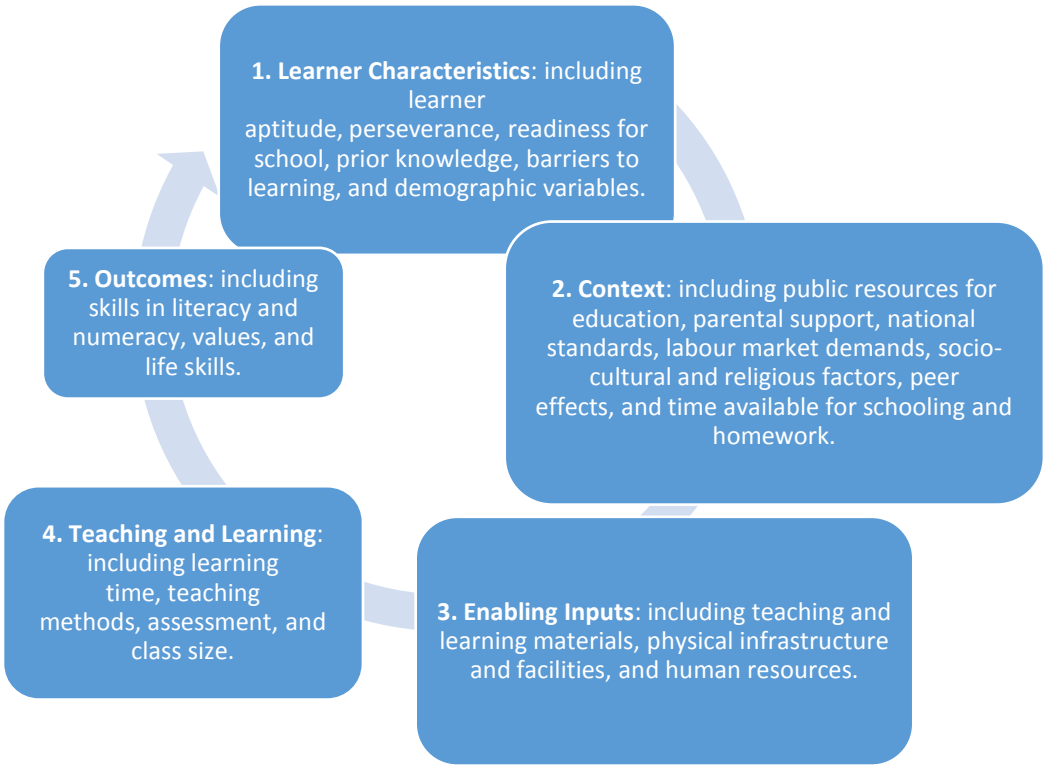
2.1 The use of indicators

In its simplest form, quality education can be conceptualized as investment and value addition. The investment side captures benefits in the form of higher earnings, better health, contributions to the arts, effective participation in the democratic process and other outcomes that education improves. Taken from the community perspective, the quality of an education system refers not only to the amount of investment and consumer benefits, but also to the way in which they are distributed among individuals. (Ladd, Loeb, 2013: 22-25)

Examples of process measures of education quality include evaluations of teacher quality based on observations of their practices in the classroom (Grossman *et al*, 2010; Kane *et al.* 2010) and inspectorate reports on individual schools. Such reports are typically based on visits by external review teams to individual schools on a periodic basis.

Even though there are many indicators for measuring the quality of education, understanding what quality means varies between countries. Also, different actors and organizations in education have their own definitions. However, most tend to agree on three general principles: the need for relevance, fairness of access and outcomes and proper respect for individual rights (UNESCO, 2004). The indicators promoted by UNESCO are presented below:

Figure 3 UNESCO's framework on the variables of education quality



Source: UNESCO, 2004, p.36

In an article on how to create the strategic profile of a community, Hințea (2015) points to the need of including a quality of life analysis in every strategic plan to better define the strategic profile. He defines quality of life as a concept that 'analyzes the lifestyle, level of well-being, level of development and of attractiveness of a community from the citizens' perspective' (Hințea, 2015: 109). He refers to the subjective and objective measures of quality of life. In order to obtain an integrated governance approach, all strategic efforts in Cluj-Napoca's Metropolitan Area should follow the same path. Having a common vision based on qualified human resources, engaged university, long-term sustainability and prosperity, and knowledge-based economy will help achieve a strong cohesion in regional policymaking, all through a citizen-centric orientation (Hintea et al, 2018).

3. METHODOLOGY

3.1 Data source and sampling

The practical part of this paper uses a quantitative research method, a survey (with 23 questions grouped into six dimensions), the phenomenon investigated, in which case the quality of education and life in the rural area of Cluj-Napoca Metropolitan Zone is measured in a single moment, the values describing the characteristics measured in a single temporal section. Each dimension has a specific number of items, and respondents used a scale from 1-10 to express their satisfaction with the various quality of life and education dimensions. In the case of this research we have a non-probabilistic convenience sample, we measure the variables once, and finally we analyze and extract the conclusions based on them. Citizens were selected through educational institutions at county level (designed by Faculty of Political, Administrative and Communication Sciences) based on a self-administered questionnaire. The advantage of this cross-sectional research is the possibility of generalizing the whole population. The objectives of research are both descriptive and test hypotheses that we will describe below. The research tool used was adapted to the Eurofound Barometer of Public Opinion on Quality of Life. The research is an exploratory one among the citizens from the 19 rural communities of the Cluj-Napoca Metropolitan Area. A total of 5,156 respondents chose to answer the survey questions. The univariate and multivariate analysis was pursued in SPSS Statistics 20.0.

3.2 Research questions

The study seeks to answer three main research questions:

a. What is the relationship between the socio-demographic aspects of the respondents and the perception on the quality of education in the commune schools?

b. Is the number of students who determine their commuting to the city of Cluj-Napoca determined by the quality of education in the commune?

c. What is the level of quality of education in the communes of the Cluj-Napoca Metropolitan Area compared to other dimensions of quality of life?

The purpose of these assumptions is to see, in comparison, how the quality of education is placed in a metropolitan context, with different existing discrepancies and to identify potential solutions regarding local reforms or to stimulate the increase of the quality of public services. For the first time we will present the descriptive statistics after which we will identify the factors, the correlations of the quality of education with other dimensions in the questionnaire.

3.3 Findings

The respondents are both men and women, 27.8% and 68.5% respectively. The ages are between 18 and 96 years, and the distribution of the respondents on the two rings is as follows: 2.254 respondents in the communes in Ring I and 2.902 in the communes of the Ring II. The ethnic structure of the Cluj-Napoca Metropolitan Zone respondents is consistent with the data generated by INSSE in the first part of the paper. Thus, we have a share of 73% Romanians, 10.8% Hungarians, 12% Roma, 1.4% who did not answer, 0.3% we have another nationality and 0.1% are German. For religion we obtained the following data: 71.5% are Orthodox, 8.3% Protestant, 7.2% Neo-Protestant, and 3% Roman Catholic.

Regarding the last form of education, the data shows a share of 24.61% of those who have as a last school graduated high school (9-12 classes), 17.03% vocational school, 16.99% gymnasium, 8, 79% have graduated from first grade of high school (9-10 classes) and only 8.55% are those who have completed long-term university studies. The share of the homeless throughout the Cluj-Napoca Metropolitan Zone is around 3.1%.

At the statistical level, we have a share of over 20% of respondents who are skilled workers, 16.9% are workers in trade services, 8.7% have liberal jobs (doctors, lawyers, teachers), 7.1% are workers Unqualified, the unemployed represent 5% of the total respondents. Also, 8.3% are employed in the public sector (civil servants). Regarding the satisfaction with the educational services, the following table presents the indicators of the central tendency (average) compared to the two rings that compose rural to the metropolitan area of Cluj-Napoca.

Table 2 Satisfaction with some dimensions of quality of education

	N (Ring I)	Minimum	Maximum	Mean	Std. Deviation
Satisfaction with Romania's overall education quality	1998	1,00	10,00	6,7427	2,21387
Satisfaction with Quality of Universities education	1618	1,00	10,00	7,1452	2,12661
Satisfaction with education in Cluj-Napoca's public kindergartens	1742	1,00	10,00	7,6619	1,98586
Satisfaction with education in Cluj-Napoca's private kindergartens	1324	1,00	10,00	8,7432	2,58852
Satisfaction with education in Cluj-Napoca's public schools	1771	1,00	10,00	7,4958	1,92144
Satisfaction with education in Cluj-Napoca's private schools	1302	1,00	10,00	7,9171	1,94487
Satisfaction with education	1653	1,00	10,00	7,4531	1,90983

in Cluj-Napoca's highschools					
Satisfaction with education in Cluj-Napoca's Universities	1489	1,00	10,00	7,7750	1,84690
The quality of education in the state kindergartens in the commune	1850	1,00	10,00	7,8551	1,93613
The quality of education in the private kindergartens in the commune	1191	1,00	10,00	7,8497	2,02839
The quality of education in the public schools in the commune	1880	1,00	10,00	7,7229	2,00619
The quality of education in the private schools in the commune	1051	2,00	10,00	8,5756	2,26533
The quality of education in the highschools in the commune	1217	1,00	10,00	7,4979	2,23648
Valid N (listwise)	847				

	N (Ring II)	Minimum	Maximum	Mean	Std. Deviation
Satisfaction with Romania's overall education quality	2572	1,00	10,00	6,3616	2,68911
Satisfaction with Quality of Universities education	2010	1,00	10,00	7,1219	2,18884
Satisfaction with education in Cluj-Napoca's public kindergardens	2045	1,00	10,00	7,4944	2,15623
Satisfaction with education in Cluj-Napoca's private kindergardens	1625	1,00	10,00	7,9618	2,12735
Satisfaction with education in Cluj-Napoca's public schools	2092	1,00	10,00	7,4101	2,11484
Satisfaction with education in Cluj-Napoca's private schools	1606	1,00	10,00	7,7410	2,20199
Satisfaction with education in Cluj-Napoca's highschools	2013	1,00	10,00	7,4620	2,08854
Satisfaction with education in Cluj-Napoca's Universities	1857	1,00	10,00	7,7345	2,06078
The quality of education in the state kindergartens in the commune	2378	1,00	10,00	7,6215	2,23309
The quality of education in the private kindergartens in the commune	1252	1,00	10,00	7,4321	2,58156
The quality of education in the public schools in the commune	2383	1,00	19,00	7,6425	2,22226
The quality of education in the private schools in the commune	1117	1,00	10,00	7,3447	2,63528
The quality of education in the highschools in the commune	1346	1,00	10,00	7,1345	2,53256
Valid N (listwise)	895				

Source: Author estimations

The assessment of the quality of education (variable measured using a scale from 1-10 where 1- not at all satisfactory and 10-very satisfactory) is presented differently in the two rings in the rural of Cluj-Napoca Metropolitan Zone. The index of general appreciation for education in the first ring is higher than that of the second ring in the

case of most of the elements that compose it (education in Romania, education in schools and kindergartens in the commune, education in the Universities of Cluj-Napoca). The much higher appreciation for the 1st ring is also due to the existence of a more efficient educational system benefited by the large communes (Apahida, Baciu and Florești), the education being a problem at the zonal and even national level in the communes located in the remote rural area.

3.4 Testing hypothesis

For the first hypothesis (the existence of a relationship between the quality of education and the socio-demographic aspects of the respondents) we used a correlation between the socio-demographic aspects of the respondents and how they assess the quality of education, especially in the schools and kindergartens in the communes grouped on the rings. This hypothesis can also give us an answer on the similarities or differences regarding the subjective assessment of the quality of education, using certain statistical indicators. For the second ring (made up of the communes of Gilău, Gârbău, Vultureni, Borşa, Bonţida, Jucu, Căianu, Cojocna, Aiton, Tureni, Petreştii de Jos, Ciurila, Săvădisla, Sânpaul, located in the marginal area of the metropolitan area) we obtained the following model of correlation:

Table 3 The correlation of the variable of satisfaction and the socio-demographic variables

Correlations			
		Satisfaction with public schools education	Satisfaction with public kindergarten's education
Satisfaction with public schools education	Pearson Correlation		
	Sig. (2-tailed)		
	N	2383	2258
Satisfaction with public kindergarten's education	Pearson Correlation	,744**	1
	Sig. (2-tailed)	0,000	
	N	2258	2378
Respondent gender	Pearson Correlation	,057**	,020
	Sig. (2-tailed)	,006	,326
	N	2302	2300
Respondent ethnicity	Pearson Correlation	-,026	,016
	Sig. (2-tailed)	,211	,442
	N	2320	2316
Religion	Pearson Correlation	-,016	,021
	Sig. (2-tailed)	,436	,309
	N	2268	2264
Job (occupation)	Pearson Correlation	,046*	,029
	Sig. (2-tailed)	,041	,198
	N	1939	1954
The last graduate school	Pearson Correlation	-,028	-,010
	Sig. (2-tailed)	,181	,631
	N	2274	2273

Source: Author estimations

Thus, between the variables sex of the respondent, his occupation and how he subjectively assesses the quality of education in the communes of the second year, there is a significant correlation, because the significance of the Pearson correlation coefficient is below the statistical threshold of 0.05. The value of the coefficient for the last graduated school, religion and ethnicity does not indicate that there is a connection between them and the degree of satisfaction with the quality of common education, although the correlation would be positive in the case of the respondent's religion and job. We are interested in this question which of the variables gives the correlation power, so we will analyze the absolute value of the coefficient and its sign to see in what sense - positive or negative - we have the correlation model. We can see that, in the case of the variable, the level of education has a value of the negative coefficient and the weak intensity (0.028 and 0.010), the coefficient having values between -1 and 1 on the intensity scale (the strength of the relationship). Also, in the case of education and religion we have the only negative correlation model, the interpretation of this sign (-, 028) indicating that we have a negative relationship between the variable level of education and the degree of satisfaction. Less educated people tend to be more dissatisfied with the quality of education in the schools and kindergartens in the commune. We can also test this hypothesis for the communes in the first ring, where we have representative communes with a large population and a positive natural increase.

Table 4 The correlation of the variable of satisfaction and the socio-demographic variables

Correlations			
		Satisfaction with public schools education	Satisfaction with public kindergarden education
Satisfaction with public schools education	Pearson Correlation	1	,778**
	Sig. (2-tailed)		0,000
	N	1880	1748
Satisfaction with public kindergarden's education	Pearson Correlation	,778**	1
	Sig. (2-tailed)	0,000	
	N	1748	1850
Respondent gender	Pearson Correlation	,079**	,072**
	Sig. (2-tailed)	,001	,002
	N	1833	1805
Respondent ethnicity	Pearson Correlation	-,029	-,003
	Sig. (2-tailed)	,214	,907
	N	1826	1801
Religion	Pearson Correlation	-,076**	-,045
	Sig. (2-tailed)	,001	,057
	N	1823	1798
Job (occupation)	Pearson Correlation	-,009	-,001
	Sig. (2-tailed)	,721	,959
	N	1509	1487
The last graduate school	Pearson Correlation	,015	,042
	Sig. (2-tailed)	,539	,075
	N	1783	1758

Source: Author estimations

We can see in the case of the correlation for the communes in the first ring that we have significant relations between the sex of the respondent and religion, the other control variables (ethnicity, occupation and last school graduated) are not statistically significant. Going by the previous model of analysis, we can see that most variables are in a positive relationship, the only negative relationships shown by Pearson's sign are between ethnicity, religion, occupation and subjective appreciation of the quality of education. All the negative relations are of low intensity, therefore, in the second ring there is a stronger model of correlation, due to the socio-demographic characteristics with a greater influence on the quality of education.

For the second hypothesis (the number of pupils in the household moving to the city of Cluj-Napoca for school is determined by the quality of education in the commune) we used a linear regression, having the dependent variable the number of pupils and the independent variable the quality of education in the commune schools. The results that interest us will be shown by the explanatory power of the regression model and how the variables are influenced. For ring 1 (where we obtained the situation of a larger number of students studying and moving to Cluj-Napoca) we have the following regression model.

Table 5 The regression model between the level of satisfied about quality of education and the number of children in the household moving to the city for education

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,068[a]	,005	,003	,85485

Source: Author estimations

Table 6 Statistics for the same regression model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,236	,111		11,158	,000
	Quality of education in public schools	-,027	,014	-,068	-1,950	,051

Source: Author estimations

As we can see, there is no explanation between the variables, the value, 005 is explained by the fact that the model is significant (the Sig value in the Anova table) and the negative value of Beta tells us that we have a negative relation (so the variable does not influence the reciprocals quality of education and number of those studying in Cluj-Napoca). The model can lead to the conclusion that there are other control variables that determine the number of those studying in Cluj-Napoca, due to the proximity or quality of the educational services in the city.

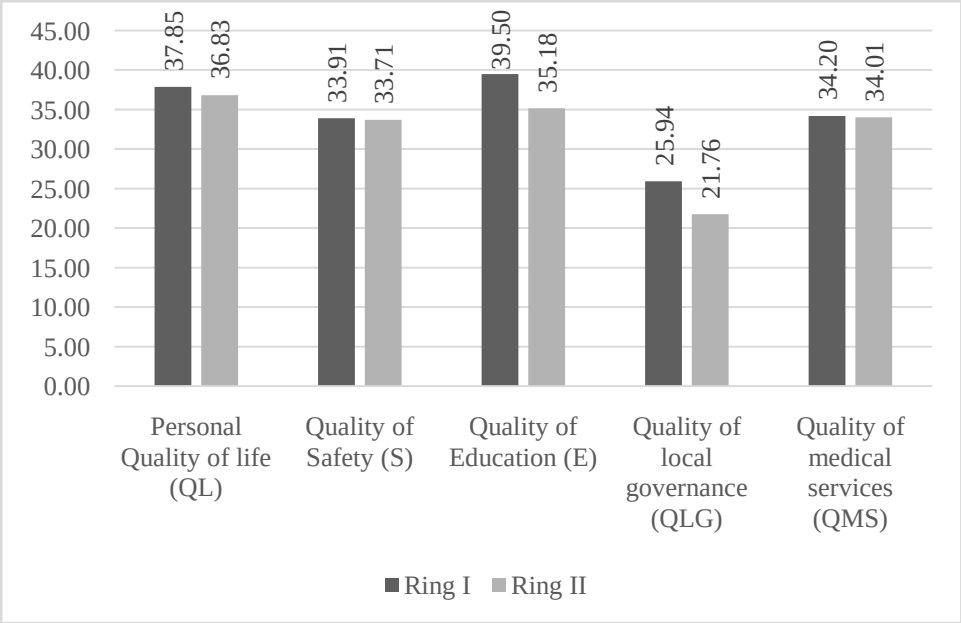
For the last hypothesis I made an index, having in questionnaire variables of quality of life, precisely to see comparatively how the quality of education is positioned.

The last hypothesis was tested using a life quality measurement model, customized on dimensions composed of variables measured at the same level and using the same scale (1-10), the results confirming. Level of quality of life is slightly higher in the communes of Ring I than in the communes of Ring II on most of the aspects that make up the general indicator.

In this sense, we have selected 21 variables (the rest of the variables being identifying questions and aspects related to the frequency of certain activities, etc.) that we grouped in five dimensions and each was awarded a score of 1 to 10. The score the maximum is 50 points, ranging between 1-16 points (low quality of life), between 17 and 32 (moderate quality of life) and between 33-50 (high quality of life).

This index of measuring the quality of life for the rural metropolitan area of Cluj-Napoca was composed of the score obtained by each dimension of the five (the mean of the variables that make up that dimension processed in the SPSS statistical program) multiplied by the number of dimensions, in our case five, resulting in the average of each dimension. Each dimension can be related to a life quality interval described above.

Figure 4 Measurement of the quality of life indicator (MQLM) by dimensions and groups of communes



Source: Own data processing from Excel and SPSS

The first dimension - the general aspects related to the quality of life personally appreciated (QL)- obtained the score of 37.85 for the communes of the first ring, at a distance being the score of the communes of the Ring II. Thus, it is in the range of 32 and 50 points, the level of quality of life from the perspective of this dimension being high.

Dimension of Quality of life from the perspective of safety (QS) achieved a score of 34 for both common groups of maximum 50 points, which means that the quality of life in terms of safety is high but quite close to the limit to be considered moderate.

The dimension - the quality of education (QE) implies the analysis of a score of 39.50 points for the communes in ring I, the highest score recorded, both from the perspective of comparison with other dimensions and from the comparison with the other ring. Thus, placed within the range of a high quality of life, education is probably highlighted by the wider development of educational institutions in these communes close to Cluj-Napoca.

For the dimension - the quality of local governance (QLG) the score is placed within a quality of moderate life, the size of the lowest score of all analyzed. Thus, local governments recorded appreciations in level for providing a quality level of the various aspects related to the interaction of citizens and the private sector (taxes, infrastructure, water and sanitation services, etc.) The lowest score we meet in this dimensions for the communes of Ring II, those far removed from the city of Cluj-Napoca. The quality of the health system is also at the limit of classification, with a score of 34, the quality of life from the perspective of this dimension being moderate to high.

Appreciating the results of this indicator, we can see that the general level of quality of life is slightly higher in the communes of Ring I than in the communes of ring II, different factors being analyzed in the conclusions of this study.

4. CONCLUSIONS AND RECOMMENDATIONS

The particularities of the rural of the Cluj-Napoca Metropolitan Area as well as the transversal approach of the quality of education allowed a strategic perspective to be outlined at a rational level. Efforts have been quantified by measuring the level of citizens' satisfaction in rural Cluj Metropolitan Area over many aspects of quality of life overall, but in a non-exhaustive manner. In the first part we analyzed the concept of quality of education from a strategic perspective, founded that its implications are fundamental in development strategies. Characteristics from the perspective of the respondents were presented in the form of a cross-sectional analysis on the dimensions that have compounded the quality of life and education, observing that the quality of life is generally average, as well as for education.

For administrations, this tool for cross-cutting quality analysis as well as an analysis of external factors specific to each community should be a milestone in the development of local and regional strategies, in the implementation of specific projects and programs, in improving the local government act. Although the analysis does not follow the evolution of this measurement model with results on each dimension, it allowed, in a single section, the presentation and the exemplification of the results, the limit of the research and of the methodology being used, being explained by the fact that the evolutions of the dimensions that make up the quality of education. Overall, the quality of life in rural of Cluj Metropolitan Area in terms of citizens' appreciation is high, with moderately customized aspects but can be improved. The strategic advantage of using such a transversal study could guide administrations towards improving and capitalizing on development strategies.

The practical side was determined by testing some positive correlations between the dimensions that make up the quality of education in rural of Cluj-Napoca

Metropolitan Area, where we observed that there is a positive correlation between the socio-demographic characteristics of the respondents and the degree of satisfaction with the way the respondents perceived quality of education. The only negative correlation was related to the level of education and the level of satisfaction with the education, tested also through the data gathered.

At the end of the research we presented in the form of the comparative approach the dimensions of rural particularities of Ring I and Ring II, where the average quality of life in ring I was superior to the average quality of life in Ring II, exemplified in the form of factors and indicators which determines this difference in all dimensions that make up the quality of life. However, averages have generated similar situations in terms of quality of medical services, lifestyle or quality of local government services, but for education, the quality is higher than previous dimensions.

In formulating the recommendations, it is worthwhile discussing the exhaustiveness of measuring a broad concept by such an approach. However, the quality of education viewed as a whole contains a lot of variables, it is measured longitudinally because longer time intervals can be analyzed, and the limit of this research is - the phenomenon was investigated in one moment and not on all the variables that could fall into this category. Also, comparative perspectives, studied from both the subjective and the objective perspectives, can be used in the sphere of the quality of life, so that later action and development directions can be drawn.

The need for multiple interventions promoted by non-governmental organizations working on rural issues is very obvious. World Vision Romania is one of the few organizations in the country that regularly carries out extensive and detailed assessments of the situation of children living in rural areas, in addition to the most ambiguous assessments, in the form of unrelated data of institutions. Thus, the research presented by World Vision was preceded by studies conducted in 2005 and 2009. The research so far has led to an improvement in the level of understanding of the problems faced by children living in rural areas and allowed the organization to develop new programs and to adjust the existing ones. The problems of the Romanian rural environment regarding the demographic structure and the degree of preparation are serious and may seriously limit the development in the future.

Thus, the number of children is small - only 2.1 children per family (only those with children were selected in the study). Even without taking into account the effect of migration, many of the villages Romanians are in an aging and depopulation process. The level of adult school education is modest, the middle level being that of unfinished high school.

References

1. Bourdieu. P. (1999). Site effects. In P. Bourdieu et al., *The weight of the world: Social suffering in contemporary society*, Cambridge: Polity Press, 123-129.
2. Clark, J., Harrison, J. & Miguelez, E. (2018). Connecting cities, revitalizing regions: the centrality of cities to regional development. *Regional Studies*, 52 (8), 1025-1028

3. Czyżewski, B., Polcyn., J., (2016). Education Quality and its Drivers in Rural Areas of Poland. *Eastern European Countryside*, 22. 2016.
4. *Fundația Europeană pentru Îmbunătățirea Condițiilor de viață.* Retrieved from https://europa.eu/european-union/about-eu/agencies/eurofound_en.
5. Gamoran, A., Long, D., (2006). *School Effects in Comparative Perspective: New Evidence from a Threshold Model.* Paper presented at the Annual Meeting of the American Sociological Association. In: E. Gatnar, M. Walesiak, (eds.), 2004. [Statistical Methods of Multidimensional Analysis in Marketing Research]. Wrocław, Wydawnictwo Akademii Ekonomicznej im. O. Langego.
6. Green, B., & Letts, W. (2007). *Space, equity and rural education: A 'trialectical' account*. In K. N. Gulson & C. Symes (Eds.), Spatial theories of education: Policy and geography matters. New York & London: Routledge, 57–76.
7. Hammerschmid, G., (2013). *Trends and Impact of Public Administration Reforms in Europe: Views and Experiences from Senior Public Sector Executives*, COCOPS European Policy Brief.
8. Hinţea, C.E., (2015). Cum se construieşte profilul strategic al unei comunităţi (How to Build a Strategic Profile for a Local Community), *Revista Transilvană de Ştiinţe Administrative*, 3(27), 101-119.
9. Huggins, R & C., Nick., (2011). Competitiveness, creativity, and place-based development. *Environment and Planning*: 1341-1362.
10. *Institutul Național de Statistică*. Retrieved from http://www.insse.ro/cms/
11. *Intercommunitary Development Association 'Cluj-Napoca Metropolitan Area' (ADI),* About Us Section, (2018) [Online] Retrived from: http://www.adizmc.ro/, accessed on May 16, 2019.
12. Isserman, Andrew M., Feser E., D. E. Warren. (2009). Why some rural places prosper and others do not. *International regional science review* 32.3: 300-342.
13. Ladd, H., Loeb. S., (2013). The challenges of measuring school quality. *Education, justice, and democracy* 19: 22-55.
14. Mănescu, C., et al. (2015). Education and health: important factors in the development of rural communities. Scientific Papers: Management, *Economic Engineering in Agriculture & Rural Development* 15.1.
15. Mărginean, I., Bălaşa, (2002) A., *Calitatea vieţii în România*, Bucureşti: Editura Expert.
16. OECD. (2013). *Synergies for better learning: An international perspective on evaluation and assessment.* Paris.
17. Parlamentul României (2001). *Legea 350/2001 privind amenajarea teritoriului și urbanismul*.
18. Parlamentul României (2001). *Legea 351/2001 privind aprobarea Secțiunii a IV-a din PATN, "Rețeaua de localități".*
19. Porter M.E, Ketels C.H.M, Miller K, Bryden R. T, (2004). *Competitiveness in rural U.S. regions:learning and research agenda*, Institute for Strategy and Competitiveness
20. Harvard Business School, Cambridge, MA, *Competitiveness, creativity, and place-based development*.
21. Reid, J., White, S., Green, B., Cooper, M., Lock, G., & Hastings, W. (Chief Investigators) (2008–2010). *Teacher education for rural regional sustainability*. ARC Discovery Project DP087998.
22. Scheerens, J.; Luyten, H.; van Ravens, J. (2011). *Measuring educational quality by means of indicators*. In: J. Scheerens; H. Luyten; J. van Ravens (Eds) Perspectives on educational quality: Illustrative outcomes on primary and secondary schooling in the Netherlands. Dordrecht: Springer Netherlands: 35-50.
23. Smętkowski, M., (2013). *Regional development and Regional Policy in The Countries of Central-Eastern Europe in the Period of Transition and Globalization*, Warsaw, Wydawnictwo Naukowe Scholar.
24. Stanef, M. R., (2013). *Sistemul educaţional din România, disparităţi dintre mediul urban şi cel rural*. Economie teoretică și aplicată 20.1: 83-93.
25. Stănică, V., (2010). *Politici administrativ-teritoriale" în România modernă și contemporană*, Cluj-Napoca: Ed. Accent.
26. Stănică, V., (2016). Probleme strategice de dezvoltare în mediul rural din Transilvania (Strategic Development Problems in the Rural Environment in Transylvania). *Revista Transilvană de Ştiinţe Administrative*, no.2(39): 206-218.
27. *The World Bank, data based*, retrieved from: http://www.worldbank.org/
28. *Thematic sheets of the European Semester*, Retrieved from https://ec.europa.eu/info/strategy/european-semester/thematic-factsheets_ro, accesed in May 20, 2019.

29. UNESCO (2004) 'Understanding education quality'. In: UNESCO, *Education for all: The quality imperative*: 27-27. Paris: UNESCO.UNESCO-UIS. 2018. Handbook on measuring equity in education. Montreal: UIS.