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SOCIOECONOMIC INEQUALITIES AND THE INFLUENCE ON LEARNING: AN ANALYSIS OF THE CONTEXT OF CEARÁ FROM BOURDIEU'S PERSPECTIVE

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ABSTRACT

The article aims to analyze the correlation between the socioeconomic level indicator of students in the 9th grade of elementary school in public schools in Ceará and their performance in the evaluations of the Basic Education Evaluation System (SAEB) in Portuguese Language and Mathematics, in the year 2021. The research, of a quantitative nature, uses Pearson's correlation test to investigate the relationship between the variables. The information was obtained through microdata made available by the National Institute of Educational Studies and Research Anísio Teixeira (Inep). The main results reveal significant and positive correlations between the variables, with greater intensity in the state capital, Fortaleza. The results corroborate the theories of Pierre Bourdieu, who highlight that the accumulation of cultural, social and economic capital by families influences the school performance of students.

Keywords: Educational Inequality. Socioeconomic Level Indicator. School Performance.

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INTRODUCTION

The objective of this article is to investigate the correlation between the indicator of the socioeconomic level of students in the 9th grade of elementary school in public schools in Ceará and their performance in the evaluations of Portuguese Language and Mathematics applied by the Basic Education Evaluation System (SAEB). To this end, it uses microdata made available by the National Institute of Educational Studies and Research Anísio Teixeira (Inep), referring to the year 2021. In order to deepen and analyze the observed data, we sought the theoretical foundations in Pierre Bourdieu, and his analyses about learning inequality present in the work "Reproduction" published in 1970, among other writings, which tend to express the perspective assumed by the French sociologist in the reading of social inequalities, their influences and origins.

Based on these discussions, the author's definitions of the social field, social capital and cultural capital are highlighted in order to better understand the inequalities present in the educational scenario. By understanding the social field as a microcosm that integrates the social space, it is possible to affirm that the educational system is a social field, therefore, a space of dispute and competition, an arena where several agents with different positions compete with each other. These struggles have as their objective the appropriation or monopoly of a capital specific to this field. In this sense, the intellectual capital present in educational systems is the object of appropriation by their agents. Therefore, within the scope of the educational system, forces of opposition and resistance between agents and institutions are presented, in confrontation, either by the permanence of the actions and actions of this field, as forms of complicity, or by the dispute for spaces of power within it (BOURDIEU; SAINT MARTIN, 1976).

By adopting Pierre Bourdieu's assumptions as a theoretical framework, this study seeks to understand how economic capital can influence the learning process of students, based on a statistical analysis of the microdata of the SAEB 2021. Bourdieu suggests that economic capital, along with cultural and social capitals, plays an important role in determining the educational opportunities and academic success of individuals. Thus, the correlation between the socioeconomic indicator of students in the 9th grade of elementary school in schools in Ceará and their performance in the subjects of Portuguese and Mathematics, as evaluated by the Basic Education Evaluation System (SAEB), can help to understand the dynamics that perpetuate educational inequalities.

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School and learning inequality, especially at its intersection with the socioeconomic dimension, is a central theme in discussions on educational equity. This research is part of this field of investigation, seeking to explore the relationships between socioeconomic factors and the academic results of students in the final years of elementary school in public schools in the state of Ceará. It is based on an integrative review of the Brazilian literature on these categories, covering the period from 2014 to 2024, based on publications indexed in the *Scientific Electronic Library Online* (Scielo).

The article is quantitative in nature, using Pearson's correlation test to unveil the nature and degree of relationship between the Socioeconomic Level Indicator (INSE) and the learning level of students in the 9th grade of elementary school, based on the results of the 2021 SAEB test. The focus established for this investigation is intended for public schools in the state of Ceará, covering school units located both in the capital and in the countryside. This geographical delimitation allows a comparison between different socioeconomic and educational contexts within the state.

The text is organized into four sections, in addition to this introduction. The first section describes the methodology used, including the justification for the established time frame; the second is dedicated to the theoretical foundation that supports the research, based on Bourdieu's concepts and related studies. The third section presents the results and the discussion produced from the analyses carried out. Finally, the final considerations expose the conclusions obtained throughout the investigation.

METHODOLOGY

The article is located in the categories of school and learning inequality, establishing analytical connections to the socioeconomic dimension. An integrative literature review was carried out, demarcating the Brazilian production in national journals, on these categories, in a combined way, covering the period from 2014 to 2024, available in the *Scientific Electronic Library Online* (Scielo) database, totaling a set of five national studies.

The research adopts a quantitative approach, characterized by the collection of empirical data with the objective of testing hypotheses and identifying patterns that corroborate previously formulated theories (SAMPIERE; PASTED; LÚCIO, 2013). To do so, it is based on numerical information and uses statistical tools, employing correlation studies to unveil the nature and degree of relationship between the variables analyzed. According to Garson (2009, p. 4), "correlation is a measure of bivariate association

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(strength) of the degree of relationship between two variables". For the analysis of the dimensions used in this study, the Socioeconomic Level Indicator (INSE) and the learning level of students in the 9th grade of elementary school, evaluated from the results of the SAEB test, Pearson's correlation test was applied. This tool, widely recognized in quantitative research, allows measuring the strength and direction of the linear relationship between two continuous variables.

Pearson's correlation coefficient (r) can extend from -1 to 1; Values close to 1 indicate a strong positive correlation, that is, as one variable increases, the other also tends to increase. Values approaching -1 indicate a strong negative correlation, which means that while one variable increases, the other tends to decrease. Values close to 0, in turn, suggest that there is no significant linear correlation between the variables (FIGUEIREDO; SILVA, 2009). The use of this test is essential to verify the existence of a statistically significant association between the socioeconomic level of schools and students' learning performances, providing a deeper understanding of the educational dynamics in question.

The database used to support the discussions presented consists of microdata from the Basic Education Evaluation System (Saeb) 2021, obtained from the website of the National Institute for Educational Studies and Research Anísio Teixeira (Inep). This information is widely recognized for its comprehensiveness, providing relevant elements about student performance and socioeconomic characteristics.

The focus established for this investigation covers the public schools in the state of Ceará, located both in the capital and in the countryside, allowing a comparison between different socioeconomic and educational contexts within the state. To perform the data analysis, initially, the import and structuring of microdata was carried out, followed by the cleaning process and the exclusion of incomplete or irrelevant records. After this stage, a number of 1,999 public institutions that offer the 9th grade of elementary education were obtained.

The data related to the INSE were collected at the student level, and later the average per school was calculated, since the object of this study is the students of the 9th grade of elementary school. Therefore, the averages provided by school in the SAEB data may include other segments, such as students in the early years of elementary school or high school students, depending on the educational offer of each school unit evaluated.

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To ensure that the surveys use the SAEB microdata in an ethical manner and ensure the anonymity of the students and schools evaluated, masking techniques were applied to all databases, with the attribution of fictitious codes. These codes prevent the identification of schools, students, teachers, school and municipal managers, even through cross-referencing of available information, in accordance with the personal data protection rules established by the General Data Protection Law (Law No. 13,709, of August 14, 2018) (INEP, 2021).

THEORETICAL FRAMEWORK

In schools – and, consequently, in the territory they occupy – forces of opposition and/or complicity in the management of educational processes rule. The dispute in this scenario occurs for a set of capitals – economic, social and cultural – where the positions of the agents of the educational system define the greater or lesser appropriation of individuals to these capitals (BOURDIEU, 1980).

Social capital differs from economic capital, which is closely linked to financial resources, as it is based on the foundations of human relations. Social capital, on the other hand, is acquired in the coexistence with other social groups, of different or equal classes, and occurs from the exchange of experiences and knowledge, passed from one individual to another as singular riches. For Bourdieu (1980, p. 2), it is a "set of current or potential resources that are linked to the possession of a lasting network of more or less institutionalized relations of inter-knowledge and inter-recognition (...)".

Thus, it is understood that social capital can generate differences between individuals of the same social class, due to the potential "multiplier effect", which permeates the relationships and ties of subjects to social groups in a permanent or useful way, associated with other types of capital. For Bourdieu, the family is the main space for the accumulation and transmission of social capital, as well as cultural capital. Thus, children and young people from more privileged social classes would inherit from their families a greater social and cultural heritage, with a greater diversity of knowledge about other cultures and languages, in addition to other relationships that could be experienced from the connections coming from other groups of higher *social and cultural* status.

Bourdieu presents the concept of cultural capital as a possibility of greater understanding and comprehension of the inequality of educational opportunities observed in students from different social backgrounds. He clarifies that these differences are even

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more evident when one understands that the school adopts a set of contents and curricular and evaluation assumptions aligned with the dominant culture, which, in itself, causes exclusion of groups considered dominated and exerts a type of symbolic violence on students from less favored classes. Such aspects are highlighted in his work "The Distinction: social critique of judgment" (2011), in which he states that for the poor access to cultural goods is limited and that "cultural practices (...) and preferences in terms of literature, painting or music are closely associated with the level of education (...) and, secondarily, with social origin" (BOURDIEU, 2011, p. 9). The sociologist also emphasizes that the effectiveness of "properly school education" is closely linked to social origin.

Bourdieu (2015, p. 45) criticizes the apparent "cultural inertia" in which the defense of the school system as a factor of social mobility is assumed, when, in fact, the school "tends to show that it is one of the most effective factors in social conservation, as it provides the appearance of legitimacy to social inequalities, and sanctions cultural heritage and the social gift treated as a natural gift".

In 1964, a study by Pierre Bourdieu and Jean-Claude Passeron entitled "Les héritiers" elucidated questions about the maintenance of social inequalities in education systems. The study arises in the context of educational reforms in France and questions the thesis of a democratic school that enables better conditions of social mobility for students. Analyzing data from the university system, the researchers point out that factors related to the social origin and cultural heritage of students' families influence the success or failure of the educational trajectories of their heirs and their entry into university.

Based on statistical data collected between 1962 and 1963 on social origin, sex and artistic tastes, the research shows that students from families of liberal professionals or high positions were 58.5% more likely to access university, while those from poor families, with salaried parents and farmers, had only 0.7% chances. It was evidenced that a portion of the students, called by the authors "the elect", had greater educational opportunities than those considered as "disinherited", coming from the popular classes. As the researchers point out, the study's findings point to the need to understand the relationship between social inequalities and school.

According to Bourdieu and Passeron (2014, p. 19-20):

> The school continuously eliminates students from less favored backgrounds, culminating in cultural obstacles perceptible in the differences in attitudes and aptitudes significantly linked to social origin, interfering in the student's education,

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> even if he has remained for fifteen to twenty years under the homogenizing action of the school.

Endorsing these ideas, Bourdieu published in 1966 the text entitled "L'école conservatrice: les inégalités devant l'école et la culture", which highlights that everything tends to show that the school system is "one of the most effective factors of social conservation, as it provides the appearance of legitimacy to social inequalities and sanctions cultural heritage and the social gift treated as a natural gift" (BOURDIEU, 2015, p. 45). In this essay, the author discusses the transmission of the cultural capital of families to their heirs and points out that, in addition to the level of education of the families, "it is the overall cultural level of the family group that maintains the closest relationship with the child's academic success" (BOURDIEU, 2015, p. 46).

Thus, the author demonstrates his thesis that the attitudes and impressions of families about the school trajectory of their children directly imply the educational destiny of these students, which, to a greater or lesser degree of transmission of cultural capital between generations, will imply the continuity and elevation of the educational level of their children. This means that working-class children will face even more obstacles in convincing their families about continuing their studies in the education system. In this sense, the author states that "(...) children from these social classes who, due to lack of cultural capital, have fewer opportunities than others to demonstrate exceptional success must, however, demonstrate exceptional success to reach secondary education" (BOURDIEU, 2015, p. 56).

The study points out that the children of workers face greater challenges in accessing quality education and continuing their studies. Therefore, this public has its destiny driven by *habitus, a* concept that is presented as the reflection of objective structures and the relationship of individuals with durable dispositions, sometimes assimilated by social structures, sometimes arising from individual responses and life experiences. Thus, the social destinies of individuals are not determined solely and exclusively by objective issues, but mainly by the relationships and acquisitions assimilated throughout life, which modify their tastes, choices, knowledge, beliefs and values. Therefore, the family has an important role in conducting these destinies, as well as school institutions and other public facilities that have the function of transmitting diverse knowledge and cultures.

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Two studies also produced in the mid-1960s became milestones in the production and research on the theme of educational inequalities: the Coleman Report, entitled "Equality of Educational Opportunity" (1966), which presents data from the United States; and the Plowden Report, entitled "Children and Their Primary School" (1967), which brings data from England. The first offers a survey of information commissioned as a requirement to respond to Section 402 of the Civil Rights Act of 1964, which provided for the production of a survey and report on the lack of availability of equal educational opportunities for individuals by reason of race, color, religion or place of birth, in public educational institutions, at all levels, in the United States (...) (BROOKE; SOARES, 2008). Based on this search, the survey was carried out with five hundred thousand American students, regularly enrolled in primary and secondary schools in the country, including the collection of data from teachers, school administrators and parents of students.

The report confirms that "socioeconomic differences among students are responsible for differences in their performance and that, therefore, the hope of combating racial inequality through a better distribution of investments in education would be a chimera" (BROOKE; SOARES, 2008, p. 15). In particular, the production records that US schools serve as reproducers of social inequalities. Alone, they are unable to respond to the demands for more equitable learning opportunities for all, since these issues are markedly affected by the economic and social factors of students. In addition, the report points out that differences in school locations do not explain the learning inequality measured by standardized tests (BROOKE; SOARES, 2008). Fifty-five years have passed since the publication of the Coleman Report, and questions raised by this production still reverberate in the educational research scenario, mainly associated with the field of Sociology of Education. According to Higgins (2005, p. 117), the report observes that "public-educational investment was under suspicion of inefficiency. Thus, the perspective of social capital from the perspective of primordial ties, private life in the family and community life, would provide the best evidence of school success".

The Plowden Report presented a state of the art on the quality of primary schooling. It was prepared by order of the Ministry of Education of the British Government, "with the purpose of identifying trends and suggesting changes" to this stage of education (BROOKE; SOARES, 2008, p. 18). The production of the research takes place at a historical moment of intense debate on more humanistic visions for education, such as the implementation of a "new pedagogical culture" whose center of the pedagogical process

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was the student. Issues underlying the context of the time permeated the discussions and results presented in the report, which reinforces the argument that "schools were the right solution to the problems of hypercenters in large cities. However, in these cases, with underprivileged students, the schools needed to be different, in the sense of being better and more expensive than regular schools" (BROOKE; SOARES, 2008, p. 19).

These studies corroborate the understanding of the field of educational inequality and its specificities of investigation. As it is a polysemic field, educational inequality reserves different paths of observation. This is what the study by Marinho (2022) highlights when he points out that the national and international productions analyzed in the period from 2000 to 2020, on educational inequalities, can be organized into three major categories: learning inequality, school inequality, and socio-spatial inequality.

Regarding learning inequality, there are productions that focus on the analysis of educational indicators and their products, to a large extent, coming from national or international standardized evaluation systems or tests. Regarding school inequality, the productions around the "school-effect" are observed, demarcating the relevance of the school as a means by which it is possible to expand the educational opportunities of the poorest and most vulnerable. And finally, the studies that emphasize the impact of socio-spatial inequality as a defining motto of educational inequality, observing the "territory-effect" and its influences. It is relevant to note that, although it is possible to observe the three major categories as investigative possibilities related to inequalities, they are not always approached in a compartmentalized way, but rather combined, given the complexity and dimension of the field that, when delving into one category, ends up entering another and vice versa.

Marinho (2022) also highlights how much the productions on educational inequality have been possible given the importance of transparency and dissemination of educational data, whether they come from censuses, evaluations, or other sources. These indicators reposition the debate on educational inequality, in the sense of enhancing scientific research and providing opportunities for the debate on the production of public policies for a more equitable education.

The article "Characterization of educational inequalities with public data: challenges for conceptualization and empirical operationalization" by Alves (2020), highlights the importance of public data for the Sociology of education, highlighting how they are fundamental to measure and understand educational inequalities in Brazil, which vary

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according to social origin, racial groups, gender, and school conditions. Based on data from the Brazilian Institute of Geography and Statistics (IBGE) and Inep, the author characterizes school results and educational opportunities, showing that, despite advances in average school performance, inequalities between different social groups persist and, in some cases, even become more pronounced.

For Alves (2020), the Sociology of education has established itself as a field of research based on data produced by large-scale demographic and educational studies. In the United States, the Coleman Report demonstrated the relationship between social origin and school performance, impacting research on educational inequalities globally. In Brazil, data from IBGE and Inep are crucial for the analysis of educational inequalities and their consequences in public policies. The study also showed that, although school performance improved between 2007 and 2017, inequalities between social groups increased, confirming a growing gap between them. The analysis of Prova Brasil reveals learning inequalities by gender, race, and socioeconomic level, with significant differences in student performance.

Factors such as leadership and participatory management in schools are positively correlated with educational success and the reduction of school exclusion. Pedagogical interventions are needed in schools to expand educational opportunities and reduce inequalities, indicating the need for targeted public policies. The article highlights the importance of ensuring equal access and fair outcomes between socially distinct groups, highlighting that, although learning levels are increasing, inequalities tend to worsen, creating a worrying relationship between educational progress and equity. The analyses indicate a historical perspective in which, over time, a pattern of inequality is observed that intensifies with educational advancement. The proportions of students at basic and adequate levels of proficiency reflect the educational reality and the need for policies directly aimed at reducing inequalities.

Similar issues were observed in the study by Soares and Delgado (2016), which observed the measures of inequality of elementary school students. The article argues that educational equality can be measured when the same groups of students have the same distribution of learning, enabling a productive and qualitative social insertion. In this sense, the authors showed, based on the proficiency data of students from state and municipal schools who participated in the Prova Brasil, in the years 2005 to 2013, that the changes, although important in terms of the dimension of educational equity, are not sufficient and

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do not happen at the appropriate pace for the needs of reducing social inequalities. Grouping students to think about equality may not be easy to implement, given the differences observed in each network and context.

More recent movements in the production on educational inequality in Brazil tend to analyze the indicators already produced, correlating the educational and social fields, and pointing out limitations, converging efforts to produce new indicators that broaden the view on the political actions that can be carried out by the federated entities to reduce learning inequalities, taking into account socioeconomic inequality.

A study by Ribeiro, Kasmirski, and Bem Ayed (2023) investigated the correlation between educational equity in municipal public elementary schools in Fortaleza, Ceará, and the social vulnerability of the territories where these schools are located, from 2011 to 2017. Using the Social Vulnerability Index (SVI) and intersections with social markers such as race, gender, and economic class, the study concluded that educational equity has expanded in Ceará, benefiting traditionally disadvantaged groups, especially in communities with high vulnerability. Compared to other capitals in the Northeast, Fortaleza shows significant improvements in educational equity in areas of high and medium social vulnerability.

In the same direction, a study by Ernica, Rodrigues and Soares (2024), entitled "Educational Inequalities in contemporary Brazil: definition, measurement and results", presents a new indicator called the Inequalities and Learning Indicator (IDeA) to measure inequalities in learning in Brazilian municipalities. This indicator considers disparities between students from different socioeconomic backgrounds, races, and genders. For the authors, educational inequalities are growing and are not adequately reflected in the Basic Education Development Index (Ideb), the main educational indicator in Brazil. The research addresses the need for transparency and measures that integrate distributive justice into education.

By analyzing the data, the researchers found that rising learning levels often coincide with rising inequalities, creating a troubling relationship between educational progress and equity. The article emphasizes the importance of ensuring equal access and fair outcomes between socially distinct groups. The analyses indicate a historical perspective in which, over time, a pattern of inequality is observed that intensifies with educational advancement. The proportions of students at basic and adequate levels of

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proficiency reflect the educational reality and the need for policies directly aimed at reducing inequalities.

Similar findings were observed in a study by Alves, Soares and Xavier (2016) based on data from the Prova Brasil from 2005 to 2013, which identified that the state capitals that show a lower than expected quality of education, considering their socioeconomic conditions, present different behaviors in the measures of inequality. In places where the quality of education has improved, there has been no reduction in inequalities. The improvement in the proficiency averages has benefited only the most favored social groups, creating a virtuous circle for these groups. In summary, the improvements in learning, commonly associated with educational quality, observed in Brazilian case studies, cannot mean a reduction in inequalities in a linear way, given that the most benefited are still the same social groups whose socioeconomic conditions are better. Such evidence stands out when observing the cutouts of color, class and gender, a portrait of social inequalities that are reaffirmed when observing the complex educational process. The case of Fortaleza found by Ribeiro et al. (2023) can help to think about alternatives for political propositions that aim to improve educational equity.

Considering the context of the state of Ceará with its 184 municipalities and social and economic indicators that point to accentuated degrees of social vulnerabilities, at the same time that it has been showing evolution in the performance of students in large-scale assessments such as the SAEB, it is interesting to analyze to what extent the educational policy has been implemented in order to promote conditions to overcome part of the inequalities pointed out by Bourdieu.

RESULTS AND DISCUSSIONS

The investigations conducted in this study, using Pearson's correlation test, aim to examine the interrelations between educational and socioeconomic variables of schools that offer the final years of elementary school in the state of Ceará. The correlations analyzed include the following variables:

- MÉDIA_9EF_MT: corresponds to the school's average proficiency in Mathematics in the 9th grade of Elementary School.
- MÉDIA_9EF_LP: refers to the school's average proficiency in Portuguese Language in the 9th grade of Elementary School.
- MÉDIA_GERAL: represents the school's average proficiency in the subjects of

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Mathematics and Portuguese Language combined.

- INSE_MEDIO_ESCOLA**:** indicator of the school's average socioeconomic level, calculated from the average of the School Socioeconomic Index (INSE) of the students.

The analyses begin with the performance data of 9th grade students in mathematics and Portuguese language, from the 1,999 public institutions included in this study. As shown in Table 1, the average proficiency achieved in mathematics is approximately 259.9 points, while in Portuguese the average recorded is 259.7. These results are above the national averages, which correspond, respectively, to 256 and 258 points (BRASIL, 2021a).

Table 1: Performance data in mathematics and Portuguese language of the SAEB 2021 in Ceará

	MEDIA_9EF_MT	MEDIA_9EF_LP	MEDIA_GERAL
Valid	1999	1999	1999
Missing	0	0	0
Mode	252.100[a]	257.730[a]	256.865[a]
Median	255.120	258.050	256.865
Mean	259.983	259.709	259.846
Std. Deviation	28.127	21.156	23.783
Minimum	188.230	195.130	196.895
Maximum	387.040	360.230	373.315

Source: prepared by the authors based on microdata from the Basic Education Evaluation System (SAEB) 2021.

The SAEB proficiency scale is organized into eight progressive and cumulative levels, which means that they are arranged in ascending order and that each level of performance incorporates, in addition to the skills inherent to that level, the knowledge acquired at previous levels. Thus, when a percentage of students is classified in a certain segment, it is assumed that, in addition to having achieved the skills pertinent to this level, they have also assimilated the contents of the previous levels. Thus, progress along the scale reflects a continuous evolution based on the consolidation of knowledge (BRASIL, 2021a) as shown by the proficiency scale presented in Chart 1.

Chart 1: Scale based on the score obtained in the mathematics and Portuguese language assessment

Level	Range range
1	Performance greater than or equal to 200 and less than 225
2	Performance greater than or equal to 225 and less than 250
3	Performance greater than or equal to 250 and less than 275

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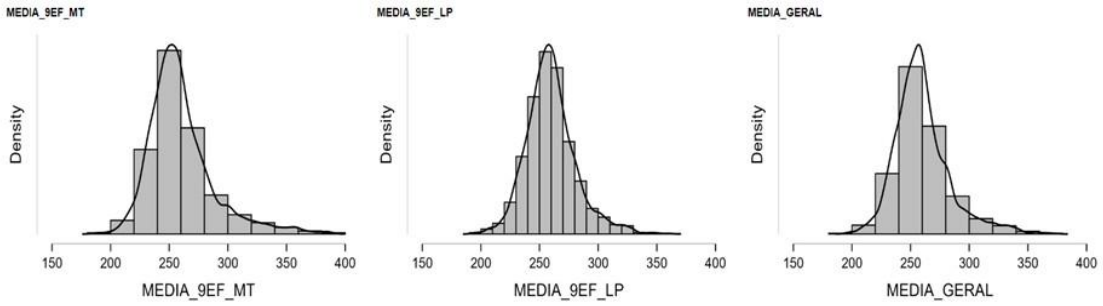
4	Performance greater than or equal to 275 and less than 300
5	Performance greater than or equal to 300 and less than 325
6	Performance greater than or equal to 325 and less than 350
7	Performance greater than or equal to 350 and less than 375
8	Performance greater than or equal to 375

Source: prepared by the authors based on the 2021 SAEB report

By analyzing the information contained in Table 1 and Chart 1, it is found that the average performance of students in the surveyed schools, although presenting values higher than the national average, is in the lower ranges of the proficiency scale. These results indicate that most students do not master skills necessary to reach the most advanced level of proficiency, characterized by scores above 325 in Portuguese and more than 350 in mathematics (QEDU, 2021). Several factors may be associated with this low performance (VIEIRA, 2019), such as the contexts of socio-educational inequalities, which are the object of this investigation and will be evaluated based on the correlation between INSE and learning in mathematics and Portuguese.

Graph 1 shows the average proficiencies of students in the 9th grade of elementary school in the 1,999 participating institutions.

Graph 1: Distribution of average proficiency in mathematics and Portuguese language



Source: prepared by the authors based on microdata from the Basic Education Evaluation System (SAEB) 2021.

It is possible to verify that a small number of students have a performance equal to or greater than 300 points, both in mathematics and in Portuguese, resulting in a small number of students inserted in levels 5 to 8 on the proficiency scale. It is also observed that most students maintain their averages between 250 and 260 points, in both disciplines, positioning themselves in the basic learning level, whose values are between 225 and 299 points in mathematics and 200 to 274 points in Portuguese. The mathematics and Portuguese language curves are shifted to the left, showing the highest concentration of

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students in the lowest proficiency levels, therefore far from a normal distribution. As expected, the same happens when working with the average of the two subjects.

This situation indicates that a large portion of students have not yet acquired the skills and abilities necessary to understand mathematical and Portuguese language concepts compatible with the school year they are attending. At most, they are able to locate and interpret implicit and explicit information in various textual genres, identify cause-and-effect relationships, understand the meaning of connectives between verbal and non-verbal elements, and demonstrate skills to perform operations with integers and fractions, interpret graphs, and recognize the flattening of simple solids (BRASIL, 2021a) at the end of the nine-year cycle of elementary schooling.

Several studies, such as the report produced by Coleman in the North American context (1966) and the work of Abrantes, Palhares, and Torres in the Portuguese scenario (2024), indicate that academic results can be directly impacted by the social context in which students live, such as socioeconomic inequalities, limited access to educational resources, and food and housing conditions. These aspects are in line with the findings of Bourdieu (1998) when he states that school performance cannot be understood in isolation, since it is closely related to the social space where individuals are inserted. In his understanding, the disparities in academic results are, to a large extent, a reflection of the unequal distribution of economic, cultural and social capital among families.

In the wake of this thought, the *habitus*, that is, the set of social dispositions internalized by individuals, shapes the way students perceive and respond to school demands. Thus, those who have greater cultural capital tend to find it easier to adapt to the school's norms and expectations, while those who have less capital face additional barriers to achieving academic success (BOURDIEU, 1998). This perspective highlights the structural influence of social inequalities on educational processes, reinforcing the need for public policies that seek to reduce such disparities.

Organizing the data into two *clusters* – capital and interior – it is verified that the average performance in mathematics and general of the schools in the capital are moderately lower than those in the interior of the state, corresponding to a percentage of approximately 3% and 1.1%, respectively. In Portuguese, the schools show a percentage about 1% higher than those in the interior, as can be seen in Table 2.

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Table 2: Performance data in mathematics and Portuguese language of the SAEB 2021 in Ceará by Area (1- Capital and 2 - Interior)

	MEDIA_9EF_MT		MEDIA_9EF_LP		MEDIA_GERAL	
	1	2	1	2	1	2
Valid	162	1837	162	1837	162	1837
Missing	0	0	0	0	0	0
Mode	249.553	253.859	258.201	257.386	254.396	257.218
Median	250.655	255.810	260.065	257.810	255.608	257.005
Mean	252.852	260.612	261.725	259.531	257.288	260.072
Std. Deviation	14.676	28.934	13.770	21.681	13.919	24.452
Minimum	214.160	188.230	222.540	195.130	218.350	196.895
Maximum	340.320	387.040	320.830	360.230	330.575	373.315

Source: Prepared by the authors based on microdata from the Basic Education Evaluation System (Saeb) 2021.

The data in Table 2 also show that the number of schools in the interior is 11.3 times greater than the number of schools in the capital and when the mode is observed, it is found that the values related to the performance of students in the two clusters present practically the same frequency in both subjects. The same happens with the median, which represents the central value of a data set and in the case of schools in the capital and the interior, the variations are -2% in mathematics and 1% in Portuguese. The standard deviation in the two subjects is more pronounced in schools in the interior, indicating that the performance of students in these school units is more heterogeneous, with greater dispersion of results around the average. In the case of minimum values, schools in the capital have values 14% higher than schools in the interior in both subjects, while the maximum values in mathematics and Portuguese language in the capital are respectively 12% and 11% lower than those in schools in the interior.

These results suggest an educational dynamic in which institutions in the interior stand out in relation to those in the capital, a finding that meets the expectations of common sense that urban areas, generally more developed in terms of infrastructure and educational resources, should present better academic results. The findings can be explained by the "metropolis effect", a process by which the socioeconomic and cultural contexts of large urban centers influence education and school performance. This phenomenon is especially relevant in scenarios of intense social inequality and territorial segregation, where educational opportunities and conditions vary substantially, resulting in an unequal supply (ÉRNICA; BATISTA, 2012). The "metropolis effect" occurs due to the complex interaction of several factors, such as the concentration of poverty and violence

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measured from the homicide rate, widening the disparities between metropolitan and non-metropolitan areas, mainly affecting schools in more vulnerable regions (QUEIROZ; KOSLINSKI, 2009).

The INSE calculated in 2021 is constituted by the association between parents' schooling and the possession of goods and services by families, and is distributed on a scale of eight levels. In level 1, there are students with less availability of goods and services, whose parents' schooling generally varies between the 5th year of incomplete elementary school and complete elementary school; while at level 8, students have greater access to goods and services and most parents have attended higher education (BRASIL, 2021b)

When analyzing the correlation between the socioeconomic status indicator and the performance of students in the 1,999 schools, a positive and significant correlation was found, although of weak magnitude, between the INSE of the school units and their respective performances in mathematics ($r = 0.078$; $p < 0.01$), in Portuguese ($r = 0.236$; $p < 0.01$) and in the average of the two subjects ($r = 0.151$; $p < 0.01$), as can be seen in Table 3.

Table 3: Pearson's correlation analysis between INSE and the average performance of schools

Variable		INSE_MEDIO_ESCOLA	MEDIA_GERAL	MEDIA_9EF_MT	MEDIA_9EF_LP
1. INSE_MEDIO_ESCOLA	Pearson's r	—			
	p-value	—			
2. MEDIA_GERAL	Pearson's r	0.151***	—		
	p-value	< .001	—		
3. MEDIA_9EF_MT	Pearson's r	0.078***	0.974***	—	
	p-value	< .001	< .001	—	
4. MEDIA_9EF_LP	Pearson's r	0.236***	0.953***	0.860***	—
	p-value	< .001	< .001	< .001	—

Source: prepared by the authors based on microdata from the Basic Education Evaluation System (SAEB) 2021.

In this sense, the existence of positive correlations between INSE and the results of the evaluations indicates that the cultural, social and economic capital of families are factors that influence the academic success of students. According to Bourdieu (1992), family inheritance should be understood as a set of material and cultural assets that parents possess and transmit to their children through coexistence. The social, school, and professional positions of the "heirs" are conditioned by the relationships and positions occupied by the family. Thus, school performance can be influenced by aspects arising

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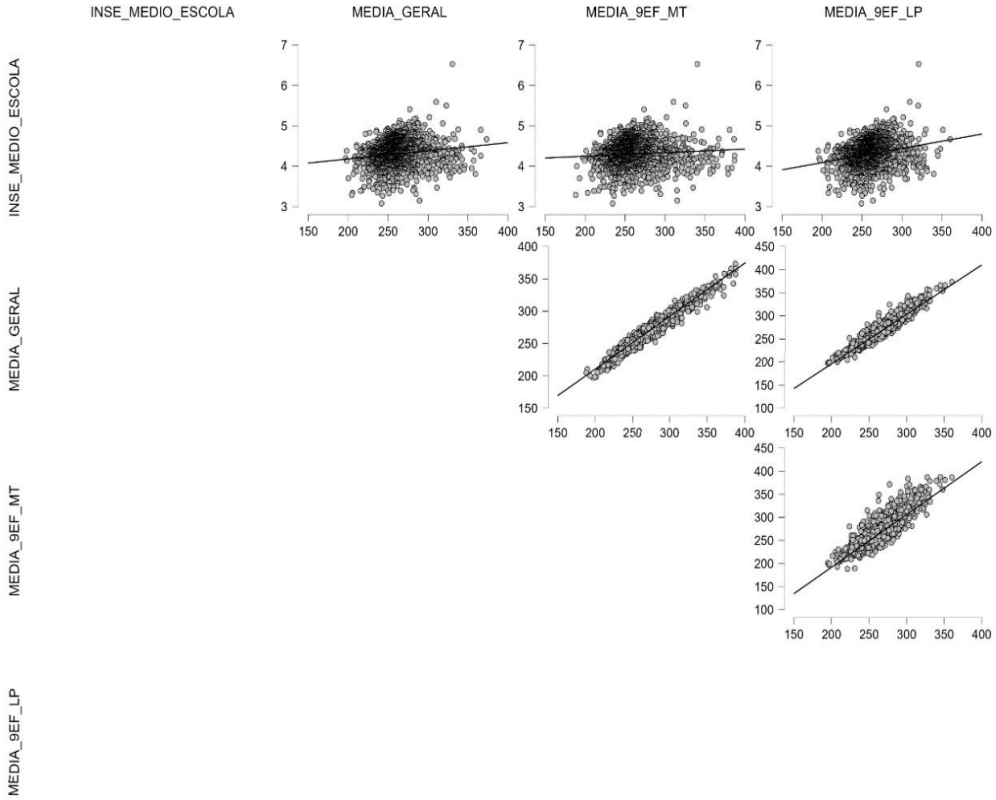
from family members, and success is associated with the cultural heritage that has been transferred to him. Therefore, the results achieved throughout the school trajectory, including in the highest segments of schooling, are intrinsically related to the cultural properties that are shared in the family environment (BOURDIEU, 2002).

Graph 2 shows the correlation between the INSE and the school performance of the schools that offer the 9th grade in Ceará.

Graph 2: Correlation between INSE and school performance in the 2021 SAEB



Source: prepared by the authors based on microdata from the Basic Education Evaluation System (SAEB) 2021.

A positive linear trend can be observed in the graph between the INSE and the school performance averages, showing that, as the socioeconomic level of the students increases, the performance averages also tend to be higher. When analyzing the set of 1,999 schools, it is verified that the intensity of these correlations is low, however, subsequent analyses carried out in a segmented manner by area, reveal stronger correlations in the capital, as will be detailed below.

Table 4 shows the Pearson correlations between the average socioeconomic status indicator of the schools, calculated from the INSE average of the students, and the average

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performance in the SAEB, considering only the institutions located in the capital. There was a correlation between the two

positive, significant and strong between socioeconomic level and performance in mathematics (r = 0.700; p < 0.01), in Portuguese (r = 0.609; p < 0.01) and in the average of the two subjects (r = 0.670; p <0.01).

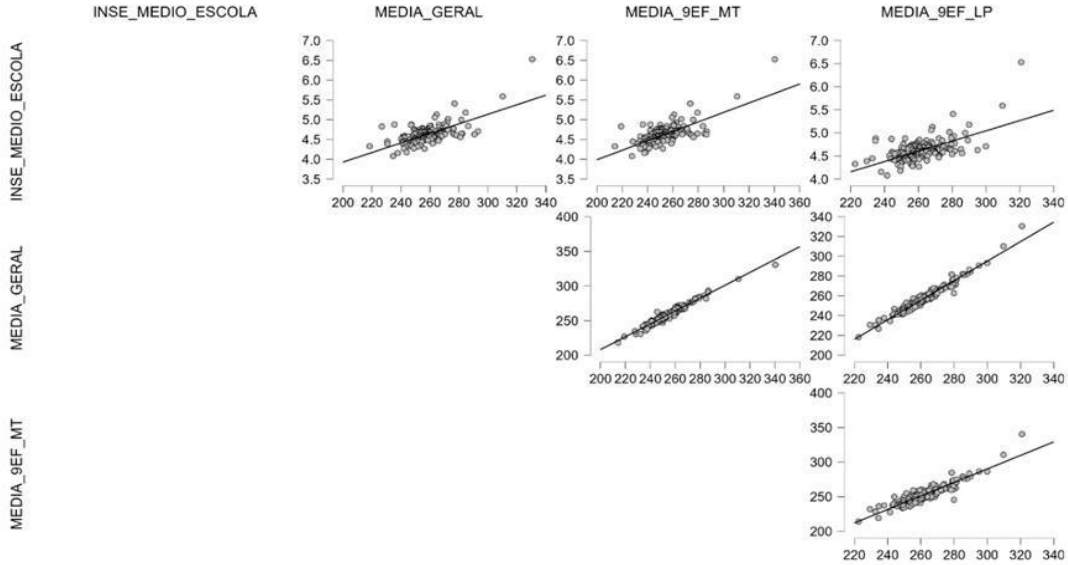
Table 4: Pearson's correlation analysis between INSE and the average performance of schools in the capital

Variable		INSE_MEDIO_ESCOLA	MEDIA_GERAL	MEDIA_9EF_MT	MEDIA_9EF_LP
1. INSE_MEDIO_ESCOLA	Pearson's r	—			
	p-value	—			
2. MEDIA_GERAL	Pearson's r	0.670***	—		
	p-value	< .001	—		
3. MEDIA_9EF_MT	Pearson's r	0.700***	0.980***	—	
	p-value	< .001	< .001	—	
4. MEDIA_9EF_LP	Pearson's r	0.609***	0.977***	0.915***	—
	p-value	< .001	< .001	< .001	—

Source: prepared by the authors based on microdata from the Basic Education Evaluation System (SAEB) 2021.

Graph 3 confirms the strong positive correlation between INSE and student performance expressed in Table 4, evidenced by the points that are distributed in an upward line whose slope indicates that as INSE rises, the results in mathematics, Portuguese language and the general average of the two disciplines also increase.

Graph 3: Pearson's correlation between INSE and the average performance of schools in the capital



Source: prepared by the authors based on microdata from the Basic Education Evaluation System (SAEB) 2021.

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On the other hand, when analyzing the data from the 1,999 schools separately, including only the institutions located in the interior, a significant, positive, but weak correlation was found between the schools' INSE and their respective performances in mathematics ($r = 0.085$; $p < 0.01$), Portuguese language ($r = 0.222$; $p < 0.01$), and the average of the two subjects ($r = 0.149$; $p < 0.01$). These results are shown in Table 5.

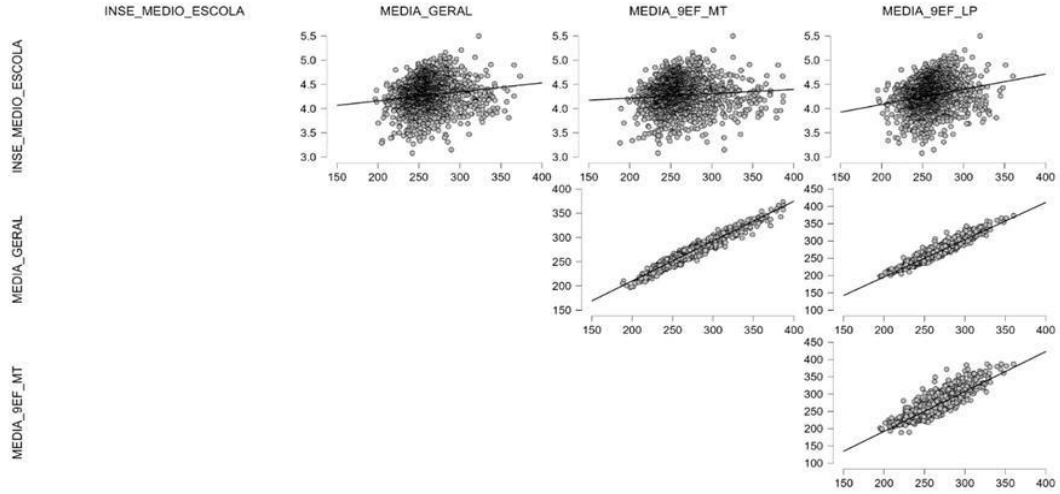
Table 5: Pearson's correlation analysis between INSE and the average performance of schools in the interior

Variable		INSE_MEDIO_ESCOLA	MEDIA_GERAL	MEDIA_9EF_MT	MEDIA_9EF_LP
1. INSE_MEDIO_ESCOLA	Pearson's r	—			
	p-value	—			
2. MEDIA_GERAL	Pearson's r	0.149***	—		
	p-value	< .001	—		
3. MEDIA_9EF_MT	Pearson's r	0.085***	0.975***	—	
	p-value	< .001	< .001	—	
4. MEDIA_9EF_LP	Pearson's r	0.222***	0.955***	0.864***	—
	p-value	< .001	< .001	< .001	—

Source: prepared by the authors based on microdata from the Basic Education Evaluation System (Saeb) 2021

The dispersion matrix shown in Graph 4 shows the correlations between the average INSE of schools in the interior of Ceará and their averages in the Portuguese language and mathematics assessments, revealing that, although there is a positive association between the socioeconomic level of the institutions and academic performance, this relationship is not strong enough to explain, in isolation, school performance.

Graph 4: Pearson's correlation between INSE and the average performance of schools in the interior



Source: prepared by the authors based on microdata from the Basic Education Evaluation System (Saeb) 2021

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These results indicate the presence of the "metropolis effect", since the impact of socioeconomic status is more pronounced in urban areas, where there is a greater concentration of educational resources and access to learning support services. In these areas, the distinction between socioeconomic factors and school performance is more evident and strong, in contrast to inland regions, where educational resources and learning support are more limited, and socioeconomic status exerts less influence on academic performance, resulting in a weaker manifestation.

According to Queiroz and Koslinski (2009), the high rates of violence have a negative impact on the teaching-learning process, as they promote a climate of fear and anxiety, compromising the concentration of students and making it difficult for qualified faculty to remain in institutions located in more vulnerable regions. In this sense, the data made available by the Ceará Public Security Secretariat reinforce what the authors and the analyses undertaken in this article state, since, of the 53,048 lethal and intentional violent crimes (CVLI) recorded in the state between 2009 and 2023, 19,679 occurred in Fortaleza, while the other 183 municipalities in Ceará recorded an average of 182.3 crimes per municipality.

The "territory effect", the influence of local socioeconomic conditions on educational opportunities, is also a relevant factor in understanding this more intense correlation between the INSE and performance in the capital. In metropolitan areas, where social inequalities are more pronounced, schools face additional challenges that are not as present in municipalities in the interior. Lack of support for public services, violence, and socioeconomic hardship create an environment in which student performance is constantly undermined. Thus, in the capitals, the socioeconomic level of families can be a determinant in school success, as the unfavorable conditions of the environment intensify the dependence of students on family support and an economic safety net (ÉRNICA; BATISTA, 2012).

From another perspective, institutions located in the interior, despite also facing challenges, are often in communities where violence rates are lower and social relations are less marked by extreme inequalities. In this perspective, a relatively more stable and safe atmosphere is created, where the direct impact of socioeconomic level on school performance is less pronounced and more homogeneous. In these areas, social conditions allow students to perform academically less dependent on their socioeconomic

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background, which reduces the perception of the correlation between INSE and academic achievement.

This may also be an explanatory factor for the progress observed in the performance levels of public schools in Ceará, measured by the Basic Education Development Index in recent years, when educational policies focused on schools made it possible to supply, in part, social and cultural capital, although the advances with regard to the improvement of economic capital have been incipient, maintaining previous patterns of inequality.

CONCLUSION

The analyses carried out in this study reveal the presence of a positive and significant correlation between the socioeconomic level of students in the 9th grade of elementary school in public schools in Ceará and their performance in the Portuguese language and mathematics assessments, applied by the Basic Education Evaluation System (Saeb) of 2021. These results demonstrate that students from more favored socioeconomic contexts had better performance, reinforcing Pierre Bourdieu's arguments about the role of the school in the reproduction of social inequalities, whose theories underpinned the present investigation. Social and cultural capital, often associated with families of higher socioeconomic status, emerges as a relevant factor for school success, evidencing the intersection between circumstances outside the school and learning processes.

When observing the intensity of these correlations, it is verified that the school institutions located in the capital have greater intensity compared to those located in the interior. This aspect can be justified by the "metropolis effect" and the "territory effect", since, in large urban centers, social disparities are more prominent, with higher rates of violence and heterogeneity in the supply of public services. In this scenario, the family's socioeconomic level can significantly influence the academic trajectory of students.

The findings are in line with the existing literature, which describes the school as a social field permeated by unequal structural dynamics that reverberate in academic results. However, it is understood that, despite the robust quantitative analyses presented, there is a need for complementary studies that incorporate qualitative variables, since this study was limited to statistical data, not delving into the individual experiences of students. However, it is believed that this research, by analyzing the relationships between the

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socioeconomic levels of families and student learning, can contribute to the debate on educational inequalities, offering subsidies both for academic reflection and for the formulation of public policies that could mitigate the impacts of the socioeconomic context on learning.

As Bourdieu already pointed out in his study on the "heirs", except for a few *outliers* who manage to escape the class situation and break their own bubble, the effort of schools to improve student performance comes up against the maintenance of the established order.

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