

POORLY RATED HIGHER EDUCATION COURSES FOR EDUCATION PROFESSIONALS AND IMPACTS ON STUDENT PERFORMANCE IN LARGE-SCALE TESTS

CURSOS DE FORMAÇÃO DE PROFISSIONAIS DE EDUCAÇÃO MAL AVALIADOS E IMPACTOS NO DESEMPENHO ESTUDANTIL EM TESTES DE LARGA ESCALA

CURSOS DE FORMACIÓN DEL PROFESIONALES DE EDUCACIÓN DE BAJA CALIFICACIÓN PARA PROFESIONALES DE LA EDUCACIÓN E IMPACTOS EN EL RENDIMIENTO DE LOS ESTUDIANTES EN PRUEBAS A GRAN ESCALA

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ABSTRACT: Affirming to exist relationship between the quality of the formation of education professionals and the performance of 15-year-old students in large-scale international tests, the investigation took as search tool the classification of existing Mathematics, Biology and Pedagogy/Letters courses in Brazil carried out by RUF 2019 - Folha University Ranking and PISA - Programme for International Student Assessment - to prove this affirmation. It was also observed that the legal rules that should guide the profile of the education professional and the curricular structure of formation courses have been erratic, making it difficult their consolidation and evaluation. When comparing the existing courses with the sample built by PISA for the application of the tests, it was noticed the symmetry between education professionals egressed from poorly evaluated courses and low performance of the students, as well as the need for policies that guarantee the quality of the formation courses, a condition to reduce the regional inequalities characteristic of Brazilian society.

KEYWORDS: Higher education. Teacher education. Higher education courses. Evaluation.

RESUMO: Afirmando haver relação entre a qualidade da formação dos profissionais de educação e o desempenho de estudantes de 15 anos em testes internacionais de larga escala, a investigação tomou como ferramenta de busca os cursos de Matemática, Biologia e Pedagogia/Letras existentes no Brasil avaliados pelo RUF 2019 – Ranking Universitário Folha e os dados do relatório do PISA (Programa Internacional de Avaliação de Estudantes) a fim de comprová-la. Também se observou que as normas legais que deveriam orientar o perfil do profissional de educação e a estruturação curricular dos cursos de formação têm sido erráticas, dificultando que se consolidem e possam ser avaliados. Ao comparar os cursos existentes com a amostra construída pelo PISA para a aplicação dos testes, foi percebida a simetria entre profissionais de educação egressos de cursos mal avaliados e baixos desempenhos dos estudantes, assim como a necessidade de políticas garantidoras da

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qualidade dos cursos de formação, uma condição para diminuir as desigualdades regionais características da sociedade brasileira.

PALAVRAS-CHAVE: *Ensino superior. Formação de Professores. Cursos superiores de formação. Avaliação.*

RESUMEN: *Afirmando que existe una relación entre la calidad de la formación de los profesionales de la educación y el desempeño de los estudiantes de 15 años en los exámenes internacionales de gran escala, la investigación tomó como herramienta de investigación la clasificación de los cursos de Matemática, Biología y Pedagogía / Literatura existente en Brasil realizado por RUF 2019 - Ranking Folha Universitaria y PISA - Programa de Evaluación de Estudiantes Internacionales - para probar esta afirmación. También se observó que las normas legales que deben orientar el perfil de los profesionales de la educación y la estructura curricular de los cursos de formación han sido equivocadas, dificultando su consolidación y evaluación. Al comparar los cursos existentes con la muestra construida por PISA para la aplicación de las pruebas se notó la simetría entre los profesionales de la educación egresados de cursos mal evaluados y el bajo desempeño de los estudiantes, así como la necesidad de políticas que garanticen la Calidad de los estudiantes Cursos de formación, condición para reducir las desigualdades regionales propias de la sociedad brasileña.*

PALABRAS CLAVE: *Educación superior. Formación docente. Cursos de educación superior. Evaluación.*

Introduction

There are numerous investigations into the Brazilian educational failure and they do not shy away from presenting results that contribute to making public policies more efficient and improving the quality of education. There is a consensus that the social inequality that places Brazil among the countries with the worst income distribution is at the root of the problem, although it is not a sufficient reason. There is still a lot to investigate. In this text, the formation of education professionals will be taken as an object of analysis, with the objective of geographically locating the best public and private institutions. Two hypotheses guide its development. The first: the legal guidelines for the formation of education professionals have a current technical conception compatible with that of content providers without a vision of social totality, that is, professionals who transform the content of their discipline into something in itself, incapable of being understood beyond itself and practically unrelated to the other subjects of the school curriculum. The second: the socioeconomic inequality characteristic of Brazilian society is reproduced in the educational field from the unequal

distribution of good quality formation courses and, consequently, the confinement of education professionals trained by poorly rated courses in the peripheries of large cities.

To check both hypotheses, I will take as object the resolutions of the National Education Council, from 2006 to the present, and data from the University Ranking Folha (RUF)², INEP/MEC and PISA/OECD (2018)³.

The conception of education professionals and the official guidelines for their formation

It has been common, since the 1980s, to designate the teacher as a worker or education professional. As in a figure of speech, the professional designation of education was used without questioning the reasons that justified it, given the objective relationship that existed between the two terms, worker and teacher. The term professional education was used as a political-union strategy to increase the quantity and strength of the category, adding administrators, supervisors, inspectors, advisors and other technical-administrative employees to it. In the state of Rio de Janeiro, from 1987 onwards, the State Center for Education Professionals (currently SEPE-RJ) carried out this inclusion. It was a time when the union presence in Brazilian life was strong, as well as the new leaders (RODRIGUES, 1992). Professionalization was opposed to the large presence of lay people and proletarianization and, at the same time, it preserved teaching autonomy, privileges and vacancies in the labor market, as Enguita (1991) observed in his studies.

The 1996 LDB ratified the term and brought as a novelty in its articles 61 and 62 the definition of basic school education professional: one who has a secondary or higher level qualification, pedagogy diploma, master's or doctorate in the area of expertise; diplomas from technical courses in the pedagogical area; notorious knowledge; pedagogical complementation; and solid basic education, ability to combine theory and practice and experiences in the educational field. But, as can be seen, both articles are essentially formal, they define who can take over classes and what their essential training should be and leave the definition of formative contents for future resolutions by the National Education Council.

² The RUF annually ranks the in-person and distance higher education institutions existing in Brazil. It is produced by the Folha de São Paulo newspaper. The classification scale used ranges from 0 to 100 and, as can be seen, the best Brazilian HEIs do not even reach 70 points. The best are in the range 55 – 65 points. So, when considering the best ones, I am clear about the position they can occupy in international rankings. In none of them would they even be included in the Top 100. In the ranking organized by the QS World University Rankings, the best Brazilian universities – USP, UNICAMP and UFRJ – were respectively placed in 118th, 204th and 361st places.

³ OCDE. **Programme for international student assessment (PISA) – Results from PISA 2018**. Available: https://www.oecd.org/pisa/publications/PISA2018_CN_BRA.pdf. Access: 10 May 2020.

Law no. 13,054, of 22 December 2014, finally enshrined the term and instituted the 6th of August as the National Day of Education Professionals, extinguishing Decree no. 52,682, of 14 October 1963, which declared the 15th of October as Teacher's Day. Despite all this trajectory, from my point of view, it is imperative to discuss in depth the two terms: teachers and education professionals. The national situation has changed and a balance of advances and setbacks would be appropriate. But, if the term education professional prevails, what should, after all, be their formation?

So far, one thing seems certain, we are still waiting for a consensus on this, even within the scope of the National Education Council (CNE), which, since the early 2000s, has already edited several deliberations trying to define adequate formation in successive comings and goings. The existing erratic movement characterizes, however, what Cunha has long defined as zigzag policies incapable of resisting the personalism of the groups that are hegemony in the Higher Education Chamber at each period, which substantively change the content of the education professional's formation(CUNHA, 2006).

Resolution CNE/CP no. 1, of 15 May 2006, which established the National Curriculum Guidelines for undergraduate courses, guided HEIs to encourage solid general education, as well as professional and intellectual autonomy with recognized knowledge, skills and competences acquired within and outside the school environment, and with the ability to articulate individual and collective research theory and practices. Such knowledge should derive from the articulation between “scientific and cultural knowledge, ethical and aesthetic values inherent to processes of learning, socialization and knowledge construction, in the context of dialogue between different worldviews” (our translation). The HEIs would guarantee a formation in which the balance between theoretical and empirical studies and dealing with science, ethics and aesthetics would be central, without closing itself exclusively in a particular world. It would be a *lato sensu* formation, encompassing "philosophy, history, anthropology, environmental-ecological, psychological, linguistic, sociological, political, economic, cultural", as well as knowledge of the school as a complex organization, ability to apply research results, participate in the management of educational processes and in the organization and functioning of educational systems and institutions.

Despite the difficulties of HEIs, especially public HEIs, to correctly implement curriculum changes, largely due to the existence of numerous councils and collegiate bodies, and without recommendable assessments of the operation and profile of graduates, the CNE issued a new Resolution, the of no. 2, of 1 July 2015. It introduced the principle of continuing education aiming to make the education professional reflect on their practice and refine their

technical, pedagogical, ethical and political formation in extension activities, groups of studies, pedagogical meetings, courses, program and other actions beyond the minimum formation. This formation, much to the taste of education entrepreneurs, for obvious reasons, would not necessarily be offered and/or subsidized by the State within the scope of a well-structured policy; the State would only guarantee “respect for the teacher's protagonism and [the right] to a space-time that allows them to critically reflect and improve their practice” (Art. 16, III). The understanding of the teacher as the protagonist is a notable advance, even though it was no longer accompanied by the proposition of an efficient policy for its realization, which would avoid formative dispersions, burden for the education professional, and create objective conditions so that they could deepen their studies with, for example, facilitating leave, scholarships and maintenance of their salaries. The formativity principles contained in the previous Resolution continued to be present, as well as the balance between theoretical and empirical studies and dealing with science/research, ethics and aesthetics.

In Resolution no. 2, of 1 July 2015, it is necessary to pay attention to the multifunctional or multipurpose character attributed to the education professional as a teacher, researcher, manager etc., which is in line with the neoliberal doctrine. It assigns them several activities, not necessarily of a teaching nature, in order to save on school organization and functioning. This multifunctionality, visible at the intersection of any two or more jobs within the schools, if on the one hand it serves farm managers, on the other hand it compromises the existence of a quality teaching profession because it restricts the depth of formation, teaching activities and grades. indispensable autonomy. It is a contradiction to pretend that the education professional is, at the same time, a teacher and a manager. This multifunctionality imposed on the education professional is not only technical-economic, it is also involved in political, ideological and psychological elements typical of the neoliberal doctrine that engender the transition of schools as social institutions, guarantors of the rights to education inscribed in the Constitution Federal, for the status of school organization, which inserts them in the non-exclusive services sector of the State and reduces it to the same status as other social organizations⁴.

Resolution CNE/CP no. 2, of 20 December 2019, clearly reveals several aspects of the current neo-fascist and anti-democratic government of President Jair M. Bolsonaro, in particular, the restrictions on the act of educating in order to avoid that, as Frigotto said (2017,

⁴ For further details, see CHAÚÍ, M. **A universidade operacional**. Available: <https://www2.unifap.br/borges/files/2011/02/A-Universidade-Operacional-Marilena-Chau%C3%AD.pdf>. Access: 10 June 2020.

p. 31), “be it a confrontation of worldviews, scientific conceptions and pedagogical methods, develop the ability to critically read reality and constitute autonomous subjects”. The great expectation is that the formation of education professionals will be subordinated to the contents of their teaching action, nothing more. This Resolution also establishes that the curricula of training courses are referenced by the Common National Curriculum Base (BNCC-Basic Education) and that HEIs have two years to implement them. It resolves that education professionals must have the following skills: knowledge, practice and professional engagement. More specifically, this professional must know how to plan teaching actions; assess the student's development; learning and teaching; and conduct the pedagogical practices of knowledge objects, skills and abilities. They must also be a professional engaged with their development, student learning, the school's pedagogical project, democratic values, families and the school community. Their direct involvement in the administrative management of the school is no longer intended; at most, that they have notions about the governance of educational systems. However, it is silent on the specific formation of school administrators and does not change anything regarding continuing education; it persists and remains the responsibility and burden of the education professional and in accordance with their subjective demands; the emptiness of policies that can guide it continues, as well as adding nothing in terms of subsidies and ease of paid release of workload.

The chronic zigzag makes it difficult to achieve the necessary consensus to define the education professional in Brazil; several studies in the educational sciences demonstrate the harm caused by erratic movements promoted by educational authorities. In three government administrations, in the short space of five years, three resolutions of the National Education Council organized and disorganized the formation courses. If we bear in mind the number of institutions offering formation courses spread across the national territory and the impacts that such legal precepts impose on them, it is easy to imagine the mismatches and collateral effects of this zigzag.

Education professionals, according to this last Resolution, are reduced to content ministers without a vision of social totality and who transform the content of their subjects into things in themselves, incapable of being understood beyond themselves and practically without relationships with other subjects of the school curriculum. The current government is interested in the existence of professionals who act more as instructors and not as educators in a broad sense. The current legal document restricts the limits of teaching activities in line with the proposal *Escola Sem Partido* (School Without Political Party), which, if approved, would dissociate “the act of educating and the act of instructing. The act of educating would be the

responsibility of the family and religion; the teacher would limit himself to instructing, which would be equivalent to transmitting neutral knowledge, without mobilizing values and without discussing” (PENNA, 2017, p. 36, our translation).

The formation courses for education professionals

In the formation courses for education professionals offered by public and private HEIs across the Brazilian territory, 8.5 million students are enrolled in 7,415 on-site and distance courses, from all areas and careers, of which 3,785 are public and 3,630 private (INEP, 2018). Most graduates in 2018 (250.453) were enrolled in private institutions, 173,274. This is the concrete reality of Brazil and the starting point of the analysis I propose, understanding, however, that this empirical reality tells us little or nothing about the quality of the courses or about the professionals they train.

Given the extent and heterogeneity of this reality, it is imperative that I stick to face-to-face and distance courses whose contents are assessed by PISA, that is, courses in Biology (Science), Mathematics and Pedagogy/Literature (Reading Literacy). What justifies this cut is the poor performance of Brazilian students compared to the average of other students in the 70 participating countries. The data from the RUF 2019 - Folha University Ranking will make this analysis possible.

The RUF assesses and classifies on a scale from 0.0 to 100 all on-site undergraduate courses at universities, university centers and colleges, public and private, using the following criteria: Teaching/Research and Insertion of graduates into the labor market.

Biology Courses (Sciences)

379 on-site Biology courses (Sciences) are offered: 143 in public HEIs (universities, university centers, colleges, higher institutes and CEFET) and 234 in private HEIs. The first five HEIs placed in the ranking of the best Biology courses are all public: USP, UNICAMP, UFRJ, UFMG, UNESP; their scores, in order, range from 62.92 to 55.73 in teaching. Private HEIs, with the best places in the same ranking, are: PUC-RS, PUC-PR, MACKENZIE, UNESP, PUC-MG, with teaching scores well below those of public HEIs; in order the scores decrease from 43.83 to 14.18.

It is immediately observed the lowest score of private HEIs in the teaching evaluation. The difference in points between the first ranked public HEIs highlights the fragility of

private HEIs in the provision of Biology teaching; the distance between them becomes more scandalous when comparing the difference of 21.09 points between USP and PUC-RS, the latter being the best private HEI.

Public and private HEIs that are worse placed in the same ranking have marked differences in terms of teaching. Exactly 121 public HEIs, 34.47%, more than a third of the total, do not even manage to obtain half of the USP points, and 77 of them, that is, 21.9%, are not even referenced. Among the 234 private HEIs, only the two highest ranked in the RUF 2019 score above half the points obtained by the best public HEIs. The other private HEIs – 99.14% of them – do not even manage to obtain 20.00 points.

The dispersion of public and private HEIs across the Brazilian territory reflects the inequalities between rich and poor federative units in the offer of formation courses for Biology professionals. The best and most highly rated courses are located in the richest federative units: Bahia, Distrito Federal, Goiás, Minas Gerais, Pernambuco, Rio de Janeiro, Rio Grande do Sul, Santa Catarina and São Paulo. Outside the capitals, they can be found in Feira de Santana (BA), Viçosa and Uberlândia (MG), Seropédica and Campos dos Goytacazes (RJ), Santa Maria and Pelotas (RS), Campinas and São Carlos (SP). The other states: Acre, Alagoas, Amapá, Amazonas, Ceará, Espírito Santo, Maranhão, Mato Grosso, Mato Grosso do Sul, Pará, Paraíba, Piauí, Rio Grande do Norte, Roraima, Rondônia, Sergipe and Tocantins offer courses rated below of the average of the five best-placed public HEIs in the RUF 2019. This means that 67.7% of the federative units offer courses that are poorly evaluated and strongly contribute to confine Biology professionals inside, they serve 49% of the interior population, both in urban areas, 74%, and in rural areas, 26% (DATASEBRAE, [s/d])⁵.

Mathematics Courses

The HEIs that offer the best teaching in Mathematics in Brazil, a total of 143, are all public, as shown in the table below: USP, UNICAMP, UFRJ, UFMG and UFRGS, with scores, in order, between 62.4 and 57.12. The private HEIs that are at the top of the ranking are: PUC-RIO, MACKENZIE, PUC-PR, UNIP, PUC-RS, with a score between 34.38 and 27.57. Public HEIs located at the base of the same ranking are far from achieving 5.00 points in teaching assessment. In the 140 courses of Private HEIs, the situation in terms of education

⁵ DATASEBRAE. **População do interior**. Available: <https://datasebrae.com.br/populacao-do-interior/#moradores>. Access: 10 June 2020.

is exactly the same. Among 143 private Mathematics courses, 97.14% are unable to reach 20,000 points in teaching quality.

The dispersion of public and private HEIs that offer Mathematics courses in the territory reveals even more eloquently the regional inequalities. The best and most highly rated courses, above 50.00 points, are all located in the richest states: Rio Grande do Sul and Santa Catarina, in the South Region; São Paulo, Minas Gerais and Rio de Janeiro in the Southeast Region; and in the Federal District. The only courses with points equal to or above this average in the interior are found in the cities of Campinas, ABC and São Carlos in São Paulo, Londrina and Maringá in Paraná, Santa Maria in Rio Grande do Sul, and Niterói in Rio de Janeiro. In most federative units – 77.8% – it is possible to find Mathematics courses with very low quality.

Pedagogy Courses

The education professional with a teaching degree in Pedagogy is of great importance in the cognitive development of children, as they attend to the initial years of elementary school, that is, children aged between six and ten years. It is in these early years that children are “literate”, that is, they are introduced to the mastery of spoken and written language, in mathematical principles, and acquire notions of space, time, science, arts and aesthetics. For the OECD, which administers the PISA exams, they are in the literacy phase in reading, mathematics and science. The definition of reading literacy that this organization uses is as follows: “Reading literacy refers to understanding, using, reflecting on written texts in order to achieve a goal, development of knowledge and potential, and participation in society” (INEP/MEC, 2019, our translation).

In the reading literacy exams, the average performance of Brazilian students is 413 points, 74 points below the average of other students participating in PISA 2018. In the ranking, Brazil's score placed it in the following range: 55-59 points, behind from Chile, Uruguay, Costa Rica and Mexico.

In Brazil there are 144 public HEIs that offer the Pedagogy Course. The best placed in the RUF 2019 are: UFMG, UFRJ, UNESP, USP, UNICAMP, whose scores range between 61.74 and 54.88. The best rated ones are offered by the following Private HEIs: PUC-SP, PUC-RIO, MACKENZIE, UNISINOS, PUC-RS, with scores ranging between 57.17 and 46.71. These five best private HEIs are still below the average of the five best public and secular HEIs. The other private HEIs, 913 in total, disappoint in terms of the formation of

education professionals with a teaching degree in Pedagogy. About 87.52% of them do not even reach half the average of the five best public HEIs.

When analyzing the universe of private HEIs, with the offer of the Pedagogy Course, the concentration of them in some states stands out: São Paulo is the champion, with 268, followed by Minas Gerais, 102; Paraná, 80; and Bahia, 56. Bourdieu, regarding such a profusion of courses and the hyperinflation of diplomas, would say that it responds to the demand of many individuals and groups, as they dream of occupying positions in the functional hierarchy, even if the level of the diploma is devalued and compatible remuneration cheaper (BOURDIEU *apud* HEY; CATANI; MEDEIROS, 2018). For education entrepreneurs, it is good business to offer cheap courses to people who are not interested in high investments in studies, concentration and time.

Only three states among the richest, two in the Southeast Region – Minas Gerais and São Paulo – and one in the South Region – Rio Grande do Sul, offer highly rated Pedagogy Courses. All the others do not even reach the average of 58.17 points obtained by the five best Public HEIs.

Letters courses

Literacy in reading, typical of the early years of elementary school, broadens the horizons of students when they come into contact with the Portuguese Language discipline, whose teaching is exclusive to students with a teaching degree in Letters. This is what justifies identifying the quality of teaching in Letters offered by many public and private HEIs. According to RUF 2019, there are 413 public and private HEIs that offer it, more precisely 129 public HEIs and 283 private HEIs. The public and private HEIs that offer the most highly rated courses are: USP, UNICAMP, UFMG, UFRJ and UFF, with scores ranging between 62.25 and 53.67. Private HEIs are: PUC-SP, PUC-RS, PUC-MG, MACKENZIE and UNISINOS. All of them with scores below the public HEIs; scores range from 50.54 to 16.23 in teaching quality.

Similar to what was seen in the offer of Pedagogy courses, the Letters courses of private and religious HEIs stand out among the best. Even so, the evaluation of all of them in teaching quality is well below the average of Public HEIs. In fact, 279 private HEIs do not even get 17.00 assessment points, and this corresponds to 98.58% of the total.

In the universe of Letters courses, the inequalities between the units of the Federation are even greater. Only four units of the Federation have highly rated courses: São Paulo, Rio

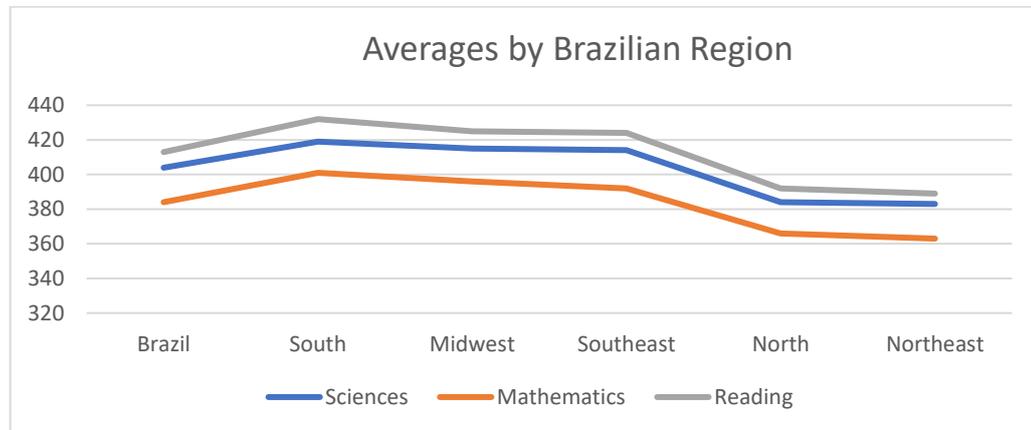
de Janeiro, Minas Gerais and Distrito Federal. The number of poorly rated courses at private HEIs follows the logic of inequality, also concentrating on the richest states, where the purchasing power of the population is greater.

The observations I make, which elevate me from the abstract world of public and private HEIs, presented in quantities at the beginning of this section, allowed me to concretely arrive at a worrying reality. The concentration of the most highly rated courses in the richest and most developed states of the Federation makes visible how far from being democratized the formation of education professionals is. Most offer courses with low educational quality. The profusion of Pedagogy courses that can be considered bad is scandalous, and the creation of efficient means of inspection and punishment becomes imperative, as they are sold misleadingly. Such profusion, however, which is not exclusive to the provision of formation in Pedagogy and ends up creating a circle far from being virtuous and that needs to be broken: poorly formed education professionals offer low-quality education to basic education students who, in the future, become teachers in courses with poor quality of education.

PISA x Education Professionals Formation Courses

PISA, an exam applied by the OECD, assesses student performance in Mathematics, Reading Literacy and Science every three years since 2000, seeking to know: “what is important for citizens to know and be able to do?”. More specifically, what essential knowledge and skills 15-year-old students already master. And it does this based on the Human Capital Theory, believing that modern economies develop and “reward individuals not only for what they know, but increasingly for what they can do with what they know” (INEP/MEC, 2019, our translation).

The sample of exam participants comprises 10,691 students from urban areas (10,271) and rural (420), capitals (2,462) and inland cities (8,229). Since 2006, Brazil has submitted to exams students from 661 schools distributed throughout geographic regions with acceptable sampling levels of precision, with the exception of indigenous schools, rural schools in the North region, settlements, quilombola communities and sustainable conservation units. The results by region are shown in the graph below, with the direct relationship between courses for formation of education professionals with low evaluation and lower student performance being observed.

Figure 1 – Brazil Report on PISA 2018 - Preliminary version

Source: INEP/MEC (2019)

As can be seen in the graph, the averages obtained by students are higher in the richest regions of the country, where the most highly rated formation courses are concentrated. Performance analysis is recurrent with the object of knowledge and skills expressed by students, considering their motivations and the context in which they live: region, administrative dependence, school environment (teaching practices, learning opportunities, school policies), location of schools and socioeconomic level. The student is the central element. Studies that establish relationships between the quality of teacher formation courses and student performance are extremely rare.

The final report produced by the OECD is thorough and careful in characterizing the school environment, establishing relationships between socioeconomic level and student performance, availability or adequacy of infrastructure and school resources. Its starting point is a previous construct to guide those who embark on the complex and unequal Brazilian educational field. In a Weberian language, such a construct could be called an ideal type, which assumes a midpoint and the adjustments above and below. What was assessed by PISA was predefined a priori and corresponds to aspects deemed important, based on the values they hold dear. Perhaps for this reason, textbooks are supposed to pose challenges to students and education professionals to have adequate formation, despite the fact that directors of rural schools with “a high percentage of students [always consider], however, that the unavailability or inadequacy of infrastructure and school resources greatly or to some extent affect the learning process” (INEP/MEC, 2019, p. 145, our translation). This construct is an intelligibility factor; in research it is an important guide for the elaboration of hypotheses and in the exhibition, as Moraes, Del Maestro Filho and Dias (2003, p. 64, our translation) observed, it serves “for the description of univocal and precise means of expression”. The use

of abstractly constructed indicators, however, leads the construct to disregard essential qualitative aspects; it is not by chance that the voices of the directors of rural schools are considered only for registration purposes, as a deference.

At no time is the quality of training for education professionals the object of evaluation by the OECD and is not even properly analyzed. In a way, it starts with the acceptance that education professionals are more or less adequate, as well as teaching resources. However, when we place vis-à-vis the sample of students built for the application of the tests with the distribution of formation courses for education professionals across the Brazilian territory, the direct and perverse relationship that exists between the offer of courses emerges in our eyes. poor quality of Mathematics, Pedagogy/Literature and Science and low student performance. So, how can students achieve better performance if their teachers have inadequate formation, if the content they teach is weak, if their explanations are precarious or insufficient? How to raise student mediation levels with insufficient guidance and teaching materials? The socially referenced quality education that we urgently want and need requires well-structured school environments to be implemented; teaching resources that can contribute to raising the real and potential levels of knowledge of students; and well-qualified education professionals. On PISA tests, a large number of students omit answers. The final report reveals that students omit them because they do not know how to “integrate information and make inferences”, but do their teachers know? Are students and faculty able to make literal interpretations of results? Can both “interpret data and evidence scientifically: analyze and evaluate data, claims and arguments in a variety of representations, and draw appropriate scientific conclusions”? If the faculty do not know, how can students be required to know?

The results of this investigation, as can be seen, are really worrying. The legal uncertainty in the profile of education professionals and the poor quality of existing formation courses have negative impacts on the performance of Brazilian students. These results show, in turn, in which directions public policies need to act effectively, as well as the need for commitments from the State and Society with the quality formation of our teachers.

In the process of conclusions

My analysis from the concrete reality, with the use of official texts and the use of data obtained from INEP/MEC, RUF 2019, OECD and others, in summary, brought to light the multiple determinations to which the formation of education professionals is subject. Erratic

official determinations that make it difficult to define which teacher and the development of all courses offered in the national territory, of all levels and modalities. Determinations arising from the ways such courses are organized: as public and non-profit social institutions with the clear objective of guaranteeing constitutionally enshrined rights, and as private social organizations, in which individual profit is the first and only reason to exist. In some social institutions maintained by the federal, state, district and municipal governments, the education offered has a socially recognized quality, although they still need to improve a lot to reach the level of the best international HEIs. In most school social organizations, private HEIs, with the significant exception of those maintained by religious institutions, predominate courses of very low quality in Biology, Mathematics and Pedagogy/Literature.

My two initial hypotheses provided reasons for the investigation carried out and proved to be true. The legal guidelines for the formation of education professionals have been irregular in defining their profile and the necessary skills, currently transforming them into a content provider without a vision of social totality, who treats the contents of their discipline as a thing in itself, and unrelated to the other curricular components. The courses offered are dispersed throughout the Brazilian territory and reflect the prevailing social inequality. Most, of disreputable quality, practically confine education professionals to their places of belonging and to the peripheries of large cities. In large cities, mainly in the South and Southeast regions and in the Federal District, as well as in some cities in the interior of São Paulo, Rio de Janeiro, Minas Gerais and Rio Grande do Sul, the best places to work are occupied by professionals formed in well evaluated courses that exist in these spaces.

The identification of the precariousness of most public and private courses for formation of education professionals suggests the urgent need for public policies that take care of their improvement, as a way to democratize the quality of teacher formation. As can be seen, there are direct relationships between poor teacher formation and the poor performance of 15-year-old students from all regions of Brazil in the PISA exams. The real level of students, developed in most urban and rural basic education schools, has not been enough to raise their potential to know more in the areas of knowledge that make up the school curricula.

Raising the quality of formation for education professionals is, therefore, a categorical imperative that is urgent. It is impossible to have good students with professionals of dubious quality. Ensuring that all locations in all Brazilian regions offer quality-assessed and socially referenced teacher formation courses, without propaganda artifices, is a requirement of the democratization process in Brazil.

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