



TEACHING WORK CONDITIONS AND SCHOOL OUTCOMES IN LARGE-SCALE EVALUATIONS IN HIGH SCHOOL: SOME PROBLEMS FROM THE CONTEXT OF THE STATE OF MATO GROSSO

AS CONDIÇÕES DO TRABALHO DOCENTE E OS RESULTADOS ESCOLARES EM AVALIAÇÕES DE LARGA ESCALA NO ENSINO MÉDIO: ALGUMAS PROBLEMATIZAÇÕES A PARTIR DO CONTEXTO DO ESTADO DO MATO GROSSO

CONDICIONES DE TRABAJO DOCENTE Y RESULTADOS ESCOLARES EN EVALUACIONES A GRAN ESCALA EN LA ESCUELA SECUNDARIA: ALGUNOS PROBLEMAS DEL CONTEXTO DEL ESTADO DE MATO GROSSO

(D)

Adriana Ester Reichert PALÚ¹ e-mail: adrianareichert@ufpr.br



Andrea Barbosa GOUVEIA² e-mail: andreabg@ufpr.br

How to reference this article:

PALÚ, A. E. R.; GOUVEIA, A. B. As condições do trabalho docente e os resultados escolares em avaliações de larga escola no ensino médio: algumas problematizações a partir do contexto do estado do Mato Grosso. **Revista Ibero-Americana de Estudos em Educação**, Araraquara, v. 19, n. 00, e024122, 2024. e-ISSN: 1982-5587. DOI:

https://doi.org/10.21723/riaee.v19i00.18824



Submitted: 19/12/2023

Revisions required: 08/03/2024

| **Approved**: 18/04/2024 | **Published**: 21/10/2024

Editor: Prof. Dr. José Luís Bizelli

Deputy Executive Editor: Prof. Dr. José Anderson Santos Cruz

¹ Federal University of Paraná (UFPR), Curitiba – PR – Brazil. PhD student in Education from the Postgraduate Program in Education (PPGE) - UFPR.

² Federal University of Paraná (UFPR), Curitiba – PR – Brazil. Professor of the Postgraduate Program in Education (PPGE), works at the Educational Policy Research Center (NUPE) - UFPR.

ABSTRACT: We seek to understand possible relationships between teaching work and the quality results obtained through the IDEB (Basic Education Development Index), in high school in the state network of MT (Mato Grosso). We used a mixed methodology collecting educational data from the INEP website (National Institute of Educational Studies and Research Anísio Teixeira), current legislation in parallel compared with research already carried out. The results showed that the number of teachers hired in the MT state network is higher than the permanent ones. The data indicated that conditions of lesser efforts, considering the number of students and stages completed, working hours and the number of schools can influence the results obtained by students. The results of this study can promote discussions in the context of education departments, evaluating possibilities for improving teachers' working conditions as well as expanding the effective staff.

KEYWORDS: Educational policies. Teacher's work. Teaching effort. Forms of contract. Regional educational policies.

RESUMO: Buscamos compreender possíveis relações entre o trabalho docente e os resultados de qualidade obtidos através do Índice de Desenvolvimento da Educação Básica (IDEB), no Ensino Médio da rede estadual do Mato Grosso (MT). Utilizamos metodologia mista coletando dados educacionais do sítio do Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP), legislações vigentes cotejadas com pesquisas já realizadas. Os resultados mostraram que o número de professores contratados na rede estadual do MT é superior aos efetivos. Os dados indicaram que condições de menor esforço docente, caracterizadas a partir de números de alunos e etapas atendidas, horas de trabalho e quantidade de escolas, podem influenciar nos resultados obtidos pelos estudantes. Os resultados deste estudo podem promover discussões no contexto das secretarias de educação, avaliando possibilidades para melhorar as condições de trabalho dos professores, assim como a necessidade de ampliação do quadro efetivo.

PALAVRAS-CHAVE: Políticas educacionais. Trabalho docente. Esforço docente. Formas de vínculo. Políticas educacionais regionais.

RESUMEN: Buscamos comprender las posibles relaciones entre el trabajo docente y los resultados de calidad obtenidos a través del IDEB (Índice de Desarrollo de la Educación Básica), en la enseñanza media de la red estatal del MT (Mato Grosso). Se utilizó una metodología mixta de recolección de datos educativos del sitio web del INEP (Instituto Nacional de Estudios e Investigaciones Educativas Anísio Teixeira), legislación vigente en paralelo a investigaciones ya realizadas. Los resultados mostraron que el número de docentes contratados en la red estatal del MT es mayor que los permanentes. Los datos indicaron que las condiciones de menor esfuerzo, considerando el número de estudiantes y etapas cumplidas, las horas de trabajo y el número de escuelas, pueden influir en los resultados obtenidos por los estudiantes. Los resultados de este estudio pueden promover debates en el contexto de los departamentos de educación, evaluando posibilidades para mejorar las condiciones laborales de los docentes, así como ampliar el personal efectivo.

PALABRAS CLAVE: Políticas educativas. Trabajo docente. Esfuerzo docente. Formas de vinculación. Políticas educativas regionales.

(cc) BY-NC-SA

Introduction

The debate on quality in education is multifaceted, implying considering multiple dimensions such as: 1) supply conditions, infrastructure and school complexity, aspects that can be measured based on data from the School Census, with literature already indicating significant relationships with student results (Alves; Soares, 2013); 2) socioeconomic profile of students, which, for example, for Oliveira (2010) it can impact learning; 3) teaching working conditions that, for example, Nunes and Oliveira (2016) discuss based on the idea of qualifications consistent with the demands of work in education, a factor with a strong influence on student learning, requiring constant updating. And Bueno (2018), Pinto (2009), Alves and Soares (2013), in turn, who discuss in terms of the need for dignified and attractive remuneration.

These factors make the issue of defining quality complex, but they also allow for a broader understanding of the educational challenge. This article proposes a specific focus on the debate based on the focus on teaching working conditions as an element of quality. To this end, it considers the specificity of high school and analyzes how the relationships between teaching working conditions and school results are presented at this stage of teaching. It is understood that there is no linear relationship between these two elements, but it is not possible to think about the quality of teaching without considering its two main subjects, teachers and students. In this article the focus is on teaching subjects.

For this purpose, the methodology has a multifaceted nature (Günther, 2006, p. 207), qualitative, triangulating career documentary data with quantitative data on teachers. Data on teachers are those available on official and interinstitutional platforms, namely: School Census data made available by INEP, in particular teacher employment data and data summarized in the Teaching Effort Index calculated by INEP itself. In temporal terms, the analysis considered, with regard to IDEB, general and state, data from the period from 2005 to 2021. For data on the employment contract status of MT teachers, the period available for analysis was between the years 2011 and 2020. Regarding teaching effort, we consider data between 2013 and 2022. In relation to IDEB data, the source was INEP and the data is processed from each of the state's public schools, for this the year 2019 will be considered, the choice of year is due to the fact that it is the last year in which a significant number of high school units in MT are reported. For each public school in the state of MT that serves high school, the IDEB scores and the level of teaching effort were considered.

Once collected, the data were grouped and analyzed in a descriptive way to support the understanding and relationship of the conditions analyzed. The IDEB results were analyzed

globally, considering the state of MT and Brazil and by state school units. Data on the level of teaching effort were also considered in each school. From this analysis, we sought to understand the possible relationship between teaching working conditions and the results of the IDEB assessment.

The article is organized into four sections in addition to this introduction, the first dedicated to situating preliminary elements that structure the debate for the case of Mato Grosso; the second dedicated to understanding the concept of quality to situate the place of teaching working conditions in this debate; the third presents and discusses the data from the case of the state education network in Mato Grosso and, finally, the conclusions of the study.

Some preliminary elements for the debate on Mato Grosso

Teaching is a diverse and segmented field (Oliveira, 2021) and presents specific challenges at each stage and/or teaching modality. Thus, this study proposes a perspective based on the conditions in which high school teachers work in the MT state network. In this way, an immersion was made in the data relating to teachers who work in this stage of basic education in the state network of Mato Grosso (MT), with the purpose of understanding working and hiring conditions, seeking to verify their relationship with the educational results.

Secondary Education (EM), the final stage of Basic Education, during its historical construction process is a field of intense disputes over the conception of training and conditions of provision. We highlight that this stage gained space and investments, mainly after the promulgation of the Federal Constitution of 1988 (Brazil, 1988), when in article 205, education appears as "right of all and duty of the state", and emphasizing in article 208 the State's commitment to the "progressive universalization of free secondary education; [...]", a challenge that has not yet been overcome. In the organization of federative responsibilities, the Magna Carta, in its article 211, holds state entities responsible for offering this stage. In the Education Guidelines and Bases Law (LDB) n° 9,394/1996, article 35, the EM now has a minimum duration of three years and the purpose of this stage is defined as "the consolidation and deepening of the knowledge acquired in elementary school, enabling the continuation of studies [...]" (Brasil, 1996, our translation).

Regarding the legal path of secondary education, Cury and Ferreira (2010) summarize how this right was constituted with weaknesses, especially for young students who did not have a linear school path. The authors highlight CF/88 whose text explains the progressive

obligation, modified by the amendment 14, providing for progressive universalization, and, finally, amendment 59 making EM mandatory for young people up to 17 years old (Cury; Ferreira, 2010). It is worth remembering that the different paths make this rule a risk for young people's right to education, given that many students leave school before completing their studies, failing to receive an adequate education (Silva, 2015).

Analyzing data from the last decade on young people's access to EM in Brazil and Mato Grosso, compared to the absolute number of young people, the emergence of quality improvement is evident and, also, the need to expand the quantity of supply to ensure the right to education. Regarding high school attendance rates, we noticed a modest growth, with, in 2012, the Brazilian net enrollment rate at this stage being 46.9% and the Mato Grosso rate being 59.5% higher than the national rate. For the year 2021 we have the net enrollment rate in Brazil equivalent to 56.9% while in MT it was 53.9% (INEP).

This process, already complex in defining the right to education for Brazilian youth, suffered a deeper setback in 2016 with the changes to the LDB, produced during Michel Temer's administration. After the removal of President Dilma Rousseff, through *impeachment* without proof of a crime of responsibility, among the changes in public policies was the Provisional Measure which, despite intense resistance, especially from students in the occupation movements (Silva; Araújo, 2021), became what is called New Secondary Education (NEM). Mônica Ribeiro da Silva and Ronaldo Araújo summarize the dilemmas of this process, highlighting that implementation, especially in pilot schools, has shown a set of setbacks and losses of rights.

Among the problems highlighted by the authors, we can highlight the reduction in the course load, the inclusion of topics such as financial education and life project and, also, the creation of partnerships with private institutions (Silva; Araújo, 2021). The teachers responsible for implementing the NEM in daily practice found themselves in the midst of a set of changes in their work disciplines, making their workload a complex scenario.

For Pinto (2006) it can be thought that a very important input for student learning and also of greater weight in calculating student costs refers to the working conditions, qualifications and remuneration of education workers. Without wanting to reduce teaching work to just any input, this article seeks to problematize the conditions that high school teachers in Mato Grosso have to work in the state education network.

It is worth mentioning that the state of MT has not been obtaining good results in largescale assessments, even when compared with other Brazilian states. Under this argument, the

state government created and implemented meritocratic policies with the purpose of raising IDEB indicators. Among the measures adopted we can mention: the "MT assessment" regulated by Decree no 1,497/2022 which provides for the "Education Plan - 10 years". This program aims to align strategic issues with projects and actions developed to improve the quality, equity and educational rates of Mato Grosso by 2032. The incorporation of meritocracy processes in the teaching career was legitimized through the institution of annual efficiency bonuses for teachers. This was created in Law of 2023 and regulated by Decree No. 256, of May 5th of the same year. Such legal mechanisms aim to reward teachers whose schools reach the proposed rates and those who meet a series of pre-established conditions, such as: participation in proposed training, development of projects prepared by the state secretariat team, voluntary participation in meetings and community mobilizations.

To discuss the place that teachers' working conditions occupy in the debate on teaching quality, this article proposes comparing variables on teaching work with school results measured through the Basic Education Development Index (IDEB). According to INEP:

IDEB is an indicator of educational quality that combines information on performance in standardized exams (Prova Brasil or Saeb) – obtained by students at the end of the educational stages (4th and 8th grades of elementary school and 3rd grade of high school) – with information on academic performance (approval) (Brasil, 2019, p. 1, our translation).

The IDEB is a tool for measuring the quality of education which, according to Pinto (2008), is explicitly insufficient to assess the quality of education offered by education systems, even considering the limits of the objectives set by legislation, but which is highly visible in Brazilian politics. It is calculated based on student performance data on large-scale assessment tests and school flow rates. Although quality is influenced by several factors, such as school infrastructure, available resources, educational management, among others, it is possible to establish a relationship between teaching work and IDEB results, taken not as quality in itself, but at the limit of what it is, an indicator.

The present work, therefore, aims to discuss the working conditions of teachers who work in high school in the MT state network, considering the form of hiring and teaching effort, compared with the proficiency and school flow indicators measured by IDEB.

Teaching working conditions in the debate on teaching quality

The quality of education has been widely discussed by society and, consequently, this debate impacts daily school life. One of the factors we use to identify it are the indicators resulting from large-scale assessments, including IDEB. This indicator basically considers two factors, the school flow and the grades obtained in the Portuguese and mathematics tests. The incorporation of such factors in educational policies sometimes comes to be considered as if the responsibility for the results were exclusive to teachers, but this is not an exclusive theme of Brazilian educational policy. For Maués (2016), large-scale tests are, in general, of a cognitive nature and the desired results are pre-fixed according to the country's politics and/or economy, representing, for example, a percentage of graduates and rate approval. The author also informs that this type of policy is complemented by the dissemination of results and the rewards or punishments that students, teachers and schools may deserve and presents criticism that this obligation of results, required by the evaluation policy, has been targeted.

It is important to highlight that teaching work is not the only factor that influences IDEB results. Students' socioeconomic background, educational policies, school infrastructure, and community support also play significant roles. However, a motivated, qualified and committed teaching staff certainly contributes to better student performance throughout the process, which ends up reflecting on the results achieved at IDEB. However, the way in which this relationship between teaching work and results is connected in the planning of educational policies is controversial.

Considering this responsibility, there are many governmental, municipal or state initiatives with the aim of creating reward policies for teachers whose students obtain the best results. In the case of Mato Grosso, in the years 2022 and 2023, rules were created to grant bonuses to teachers who work in schools whose student performance in large-scale assessments improved. In Decree No. 256, of May 5, 2023, we read:

Art. 3 The objectives of the Bonus Policy for Efficiency and Result are: I - recognize the performance of teachers in the state network in fulfilling the main objectives of education;

II - recognize the work and contribution of managers and other employees within the scope of the State Department of Education who perform well in their duties;

III - encourage the continued training of education professionals, reduce the percentage of absenteeism, reduce school dropout rates and improve learning rates in school units (Mato Grosso, 2023, p. 2, our translation).

(cc) BY-NC-SA

Teacher accountability is related to their ability to offer effective teaching and engage students in the learning process. It should be noted that this should not imply blame, making more sense for policies to encourage the continuous improvement of teaching practice, valuing and recognizing the role of the teacher in the training of students. In summary, teacher accountability for the quality of education is an important, but not exclusive, component in the search for quality education. It is necessary to consider the broader context, involving socioeconomic aspects, educational policies, school infrastructure and the participation of different actors to promote effective and equitable education.

The expansion of investments is linked, in the field of educational policies, to the universalization of care and improvements in the quality of education (Pinto; Alves, 2011). When we refer to quality, we understand that it must be understood as something that goes beyond the grades obtained in large-scale assessments. The educational objective is to ensure that each student receives a quality education "that guarantees full human development, for everyone in public establishments, free of charge and that allows each person to travel their entire journey" (Gouveia; Souza, 2011, our translation), which meets their needs and promote their full development. In his research, Oliveira expands the concepts of quality:

The broader discussion of quality certainly implies considering other dimensions that affect educational processes and school results in terms of more meaningful learning, such as, for example, the socioeconomic-cultural context of students, meeting students' social expectations and parents, compliance with the rights of children, adolescents and young people, school organization and management processes, effective community participation, pedagogical planning, curricular practices and educational processes, teaching training and practice, the dynamics of student assessment and teaching commitment to student academic success (Oliveira, 2006, p. 144, our translation).

However, it is important to consider that financing education is a complex challenge, as it involves the amount of resources available in a context of complex fiscal inequalities in the Brazilian case. For Dourado (2006), the defense of constitutional binding, linking resources to education, has been the target of constant struggles and political actions of great repercussion, especially from the mobilization of organized civil society. It is not always possible, however, to allocate the necessary resources to achieve the ideal, due to budgetary limitations and other priority demands. Therefore, it is essential to strike a balance between educational needs and financial resources, always with the aim of promoting quality education for all students.

In this work, we consider the IDEB result (grades in assessments and school flow) obtained by high school students in the state of Mato Grosso as a quality indicator. The

discussion is linked to indicators of teacher appreciation such as: condition of entry into the career by type of permanent or temporary employment and level of effort of teachers measured by INEP assessments. These are indicators that, in a synthetic way, allow us to highlight the working conditions in which teachers can carry out their work.

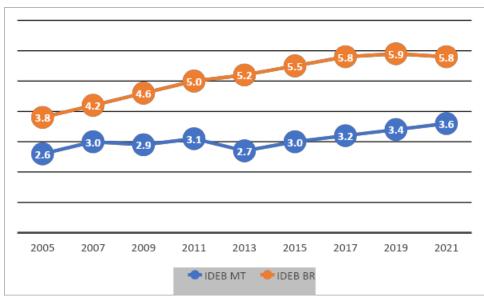
Reflections on the relationship between quality and working conditions based on the case of the state of Mato Grosso

When we begin the discussion about teaching working conditions, it is useful to consider that teacher jobs are linked to the processes of democratization of education. We must understand that, in addition to making places available to everyone, we need to take into account the quality of education and the factors that are implicit in it,

The democratization of access could be innocuous if the political and economic agenda does not prioritize high investments in school infrastructure and **teachers** (**initial and continuing training, salary and career**) – schools with an impeccable infrastructure, with prepared and motivated teachers – these are the quality indicators that our governments should seek. Otherwise, we will have a picture that is actually beginning to emerge: all children and young people will be at school, but they will not be learning and teachers will be the only ones responsible for this, finding in training for tests the only way to "raise" the quality of teaching in their schools (Limonta; Silva, 2013, p. 184, emphasis added, our translation).

The quality of education can be taken in several ways, sometimes prioritizing comprehensive and civic education (Cury; Ferreira, 2010), sometimes serving the interests of national or international organizations and meeting quantitative goals (Bauer and Sousa, 2015). One of the ways to establish indicators is the results of large-scale assessments. These select, classify and quantify the quality in the teaching process based on certain options that aggregate the results. In Mato Grosso, when we analyze the results of High School, specifically from IDEB, and compare them with the rest of Brazil, we identify a less than favorable scenario.

(cc) BY-NC-SA

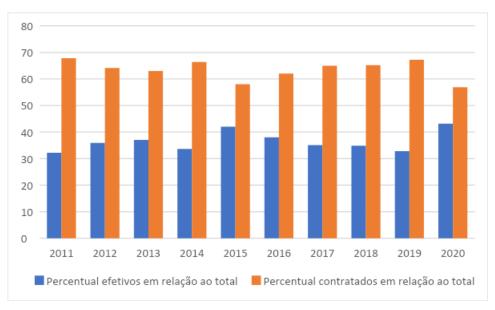


Graph 1 – MT state versus national high school results

Source: Basic Education Development Index (Inep – MEC, 2021)

When we observe the results obtained by state high schools in Mato Grosso, we realize that in the last 16 years total growth has been modest. While the national average grew by two points, in the state, it changed by just one point. We identified that in 2009 and 2013 there was a drop in the quality indicators analyzed, showing a discontinuous trajectory. This situation can be attributed to many factors, such as investment in infrastructure, the socioeconomic conditions of the majority of the population, the school curriculum inadequate to the reality of students and the working conditions of teachers. In this article, as already mentioned, we chose to discuss under what conditions teachers in the MT state network work, taking the hypothesis that these conditions can help explain part of how the results were produced in the State.

The first element that can be used to characterize working conditions is the employment of high school teachers in the context of the state education network. The data in graph 2 presents the type of employment conditions of teachers in the state.



Graph 2 – Employment conditions for MT High School teachers

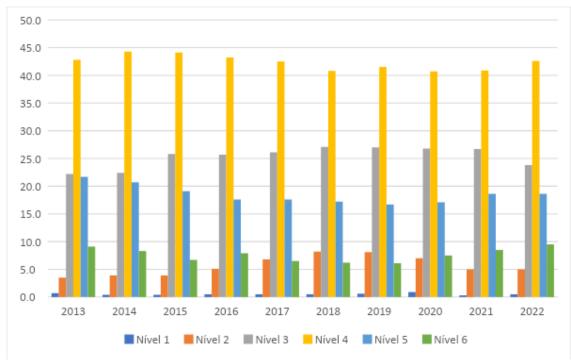
Source: Educational Data Lab, 2020

Regarding the conditions of employment with the MT state network, we noticed that the number of teachers with temporary contracts is higher, in every year, when compared to permanent teachers. It is worth noting that teachers on a temporary contract do not receive any type of bonus for training, length of service or other similar benefits. Furthermore, they still work with unstable working hours and, consequently, salaries, and are therefore subjected to stress.

Historically, we have noticed an effort by legislators regarding working conditions and teacher appreciation. In CF/88, in its article 206, we have guaranteed the need for career plans, salary floor and entry exclusively through public examinations and qualifications, demonstrating the importance of career conditions. Despite this guarantee, in Mato Grosso, the number of teachers hired is higher than the effective ones, demonstrating that the valorization policies such as length of service; academic training; continuing training and other indicators of appreciation are effectively guaranteed in the form of remuneration components for less than 50% of the total number of teachers.

In addition to the fragility of contracts, the analysis of the teaching effort indicator allows us to identify other challenges. To determine teaching effort, INEP used item response theory (INEP, 2014) to compose an indicator based on different questions to teachers. The data was classified into 6 levels that consider 4 components of working conditions: number of schools in which the teacher works, number of classes, students served and stages. The levels

are hierarchical, with the lowest effort being level 1 and the greatest effort being summarized at level 6 (INEP, 2014). Graph 3 shows the distribution of teaching effort in MT schools.



Graph 3 – Percentage of teachers, at levels, of the MT teaching effort indicator

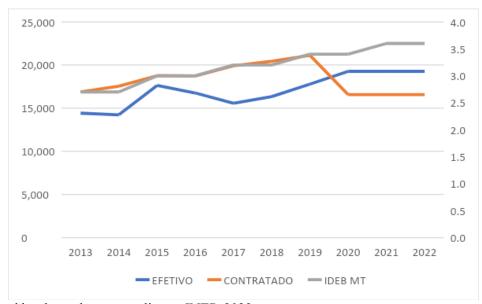
Source: Basic Education Development Index (Inep – MEC, 2022)

For the aforementioned indicators, we consider level 1 as the most appropriate to the conditions and level 6 as the most precarious working conditions. During all the years analyzed, we noticed a higher incidence at level 4. For this level, the established criteria show an intermediate level of effort, with the following priority characteristics: working in two schools; serve between 150 and 300 students; work two shifts; covering two stages of basic education. We can define these as the main characteristics of teachers who work in high school in state schools in Mato Grosso.

Teaching work conditions have a significant influence on the results of large-scale assessments in high school. These conditions refer to several factors, including the physical environment and available resources, workload, administrative support and colleagues, opportunities for professional development and autonomy in planning. In addition to other important actions involving contact with students' families, course load plays a crucial role, as overworked teachers may have less time to plan their classes appropriately, provide individualized *feedback* to students, and engage in enriching extracurricular activities.

Forms of remuneration that ensure dignity and are attractive in relation to other professions are essential to attract and retain professionals. These, in turn, can encourage teachers to dedicate themselves to teaching and invest in their professional development. The low remuneration received by teachers is, without a doubt, one of the biggest sources of discontent in the category (Pinto, 2008). In most cases, when teaching working conditions are satisfactory, teachers feel valued, motivated and qualified, which can positively impact student performance.

In general, data on ties and effort required from teachers suggest that the element "working conditions" may be a dimension that has been secondary in MT educational policies, which can help to understand the context of production of results.



Graph 4 - Relationship between contract condition and MT IDEB

Source: Prepared by the authors according to INEP, 2023

We noticed that between 2014 and 2015 there was the biggest increase in the number of effective teachers and that in this same period there was also the biggest growth in IDEB. On the other hand, between 2015 and 2017 we saw a drop in the number of permanent teachers and, during this period, IDEB remained practically stagnant, increasing only 0.2 points in a four-year cycle. We also found that between 2019 and 2020 there was a drop in the number of teachers hired and, in this same period, permanent teachers continued to increase, although more modestly than in the previous one. At this stage, we noticed a growth of 0.4 points in IDEB when considering a cycle of 3 assessments.

There are many factors that can compromise teaching work, among which we can highlight the tripod of training, remuneration and career (Gurgel, 2012). Although we have seen some initiatives regarding the aforementioned indicators, we still have a long way to go.

In many cases, the quality of education is related to the performance of teachers, since they are the main agents in the classroom. There are numerous control policies for teaching work that increase the situations in which the teacher does not have full control of his activity, in most of his work he is the executor (Gurgel, 2012) initiatives such as AvaliaMT, BNCC, Novo Ensino Médio, have a direct impact on the teacher's work and consequently on the knowledge construction process.

In most of these initiatives, the teacher is responsible for engaging students, creating stimulating learning environments and using effective pedagogical strategies. They have solid knowledge of the content they teach, master appropriate teaching techniques and are up to date with best educational practices, however current policies do not always recognize this teaching expertise.

These policies in the case of MT are certainly not exclusive, on the contrary, they are linked to a set of neoliberal policies that provoked a new conception of the role of the State in the organization of education "corroborated by the inclusion of a business management logic as a measure of school efficiency and effectiveness" (Oliveira; Pires, 2014, p. 75, our translation). In the specific case of the state network of Mato Grosso, the initiatives of this management logic will materialize in the year 2023, in which criteria were created to reward teachers who have achieved goals. State legislation defined:

- **Art. 5** The Annual Bonus for efficiency and results will be based on the following criteria:
- I individual criteria and goals described in annexes I and II correspond to:
- a) in-service training, specific to teachers;
- b) specific training for managers, technicians, educational administrative support and other employees;
- c) contribution to reducing absenteeism CRA.
- II collective criteria and goals described in annexes I and II refer to:
- a) achievement of the school target (IPEA);
- b) the goal of reducing school dropout rates (Mato Grosso, 2023, our translation).

Educational indicators, with some frequency, have been used to monitor, make decisions and evaluate the viability of initiatives and programs. These have also been used as factors to monitor the goals to be achieved, whether linked to education plans or government proposals. It would be too simplistic to try to describe the quality of education based only on IDEB, so we

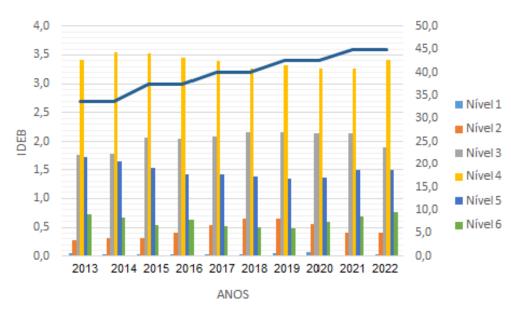
chose to analyze the possible relationship between teaching effort data and the evaluation results. The criteria used by MT to define gratification suggest the complexity of the quality problem. The criteria recognize that, for example, absenteeism in the state network and dropout rates are part of the challenges. Despite this, the answer of creating a bonus seems simplistic. To partially address this issue, we understand that we need to consider as many variables as possible for better analysis.

Teaching working conditions are directly related to salaries. Low salaries lead teachers to work more hours per week, serving more students and, often, in several school units. This increase in workload compromises continued training, time dedicated to research and planning, and quality of life (Garcia; Malacarne; Brizzo, 2009).

INEP (Brazil, 2019) provides some data on teachers, including: training, suitability and teaching effort. We chose to work with data on the teaching effort index (IED) compared to the IDEB result for high school in state schools in Mato Grosso. The IED deals with the effort used by teachers in the exercise of their profession, considering the teachers' workload, analyzing the number of schools in which they work, number of students and stages attended.

The relationship between the quality of education and the teacher's work is fundamental and can be quite significant. Teachers play a crucial role in the educational process in the construction of the right to education, considering the challenge of human formation which implies, in addition to working with knowledge from different areas, a set of interactions that are constitutive of the socialization function that the school carries out in everyday life. The intensification and regulation of teaching work results in an overload of tasks and accountability notes for teaching and learning; by increasing teacher duties; due to the constant lack of time for other activities in their lives (Gurgel, 2012, p. 26). These demands and work overload can lead to unhealthy conditions for teachers and illness or a decrease in intellectual productivity, which is so necessary to perform their duties. Graph five seeks to summarize this set of concerns by comparing the level of teaching effort in schools in Mato Grosso with the IDEB results.

We will notice that most teachers are between levels 3 and 4 and that the best grades in comparisons are at level 2. In this way, we can identify a relationship between the teaching effort and the grades obtained by the students in the index that relates the school flow and the performance in knowledge tests. We also observed that, in levels 5 and 6, there are the worst grades, indicating that the excess of work linked to the large number of students and levels served, in addition to the work in two or three schools can influence the learning conditions and the flow of high school students from the state network of Mato Grosso.



Graph 5 – Level of teaching effort compared to IDEB

Source: Prepared by the authors in accordance with INEP, 2022.

Regarding the condition of teachers' work Garcia, Malacarne, Bizzo (2009) among other authors, reveal the precariousness of teaching work as a growing phenomenon in our society and which is linked to remuneration and the precarious conditions in which they work. Teachers, pressured by the need to increase their income, increase their working hours, damaging the quality and quantity of time dedicated to studying and preparing classes. This situation thus triggers feelings of dissatisfaction and anxiety.

Final remarks

(CC) BY-NC-SA

The largely exploratory journey presented in this article aims to highlight the working conditions of high school teachers in the face of the challenge of quality educational provision. Although recognizing the limits of IDEB as a synthetic indicator of teaching quality, this indicator was taken here as a signpost to enable debate.

The analysis of contract and teaching effort data allows us to reiterate the debate present in the field of studies regarding the work in question. The complexity of the profession was clearly identified, resulting from the diversity of challenges that arise in serving students in a continental country and the inequality of working conditions to which the category is subjected.

Regarding specific data from the Mato Grosso state network, inequalities in contract conditions are evident, with a significant presence of temporary teachers, which reveals the

diversity of working conditions between schools. The policies in place in the state seem to respond very little to the challenge by only considering the incorporation of temporary advantages in the form of bonuses for teachers, maintaining a work situation with a high degree of turnover, resulting from the number of temporary teachers and a high percentage of teachers working in schools with high teaching effort.

Considering the challenges of improving quality, even if measured only by IDEB, requires overcoming the scenario of invisibility of real problems for the effective appreciation of teachers in the state. Given the scenario of devaluation of teaching work, we realize that even with advances in legislation, there are countless factors that we need to change, such as career plans implemented as a guarantee for all professionals, decent working conditions and salaries equivalent to other professionals with equivalent training.

REFERENCES

ALVES, M. T. G.; SOARES, J. F. Contexto escolar e indicadores educacionais: condições desiguais para a efetivação de uma política de avaliação educacional. **Educação e Pesquisa**, São Paulo, v. 39, n. 1, p. 177-194, jan. /mar. 2013.

BAUER, A.; SOUSA, S. Z. Indicadores para avaliação de programas educacionais: desafios metodológicos. **Ensaio: avaliação e políticas públicas em educação** [online]. 2015, vol. 23, n. 86, pp. 259-284. ISSN 0104-4036. DOI: 10.1590/S0104-40362015000100010.

BRASIL. Constituição da República Federativa do Brasil de 1988. Brasília, DF: Senado Federal, 1988.

BRASIL. Lei n. 9.394/96. Lei de Diretrizes e Bases da Educação Nacional. Brasília, DF: MEC, 20 dez. 1996. Available at: http://www.planalto.gov.br/ccivil_03/leis/l9394.htm. Access: 10 Jan. 2024.

BRASIL. **Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira**. Nota Técnica – Índice de Desenvolvimento da Educação Básica – Ideb. Brasília, DF: INEP, 2019.

CURY, C. R. J.; FERREIRA, L. A. M. Obrigatoriedade da educação das crianças e adolescentes: uma questão de oferta ou de efetivo atendimento? **Nuances: estudos sobre Educação**, Presidente Prudente, Ano XVII, v. 17, n. 18, p. 124-145, jan./dez. 2010.

GARCIA, P. S.; MALACARNE, V.; BIZZO, N. O Percurso Formativo, a Atuação e Condições de Trabalho de Professores de Ciências de Duas Regiões Brasileiras. **ACTA SCIENTIAE (ULBRA)**, [S. l.], v. 11, p. 119-140, 2009.

GURGEL, F. R. **Trabalho docente**: políticas de financiamento da carreira e da remuneração dos professores da educação básica de sistemas públicos de ensino. 2012. Tese (Doutorado em Educação) — Universidade Federal da Paraíba, João Pessoa, 2012.

LIMONTA, S. V.; SILVA, K. A. C. P. C. da. Formação de professores, trabalho docente e qualidade do ensino. *In*: LIBÂNEO, J. C.; SUANNO, M. V. R.; LIMONTA, S. V. **Qualidade da escola pública**: políticas educacionais, didática e formação de professores. Goiânia: CEPED; América: Kelps, 2013.

MAUES, O. C. As Políticas de Avaliação da Educação Básica e o Trabalho Docente. **Linhas Críticas**, [*S. l.*], v. 22, n. 48, p. 442-461, 2016. ISSN 1981-431. DOI: 10.2015/lcv22n48.442.

NUNES, C. P.; OLIVEIRA, D. A. Trabalho, carreira, desenvolvimento docente e mudança na prática educativa. **Educação & Pesquisa**, São Paulo, v. 43, n. 1, p. 65-80, jan./mar. 2016.

OLIVEIRA, A. G. de. **Políticas públicas educacionais dos municípios do estado do RJ:** relações com os indicadores de qualidade 2005 e 2007. 2010. 147 f. Dissertação (Mestrado) – Pontifícia Universidade Católica do Rio de Janeiro, Rio de Janeiro, 2010.

OLIVEIRA, D. A. Segmentações históricas e contemporâneas da profissão docente no Brasil. **Revista Brasileira de Educação**, [S. l.], n. 26, 2021.

PINTO, J. M. R. O custo de uma educação de qualidade. *In*: CORREA, B. C.; GARCIA, T. O. (org.). **Política educacionais e organização do trabalho na escola**. São Paulo: Xamã, 2008.

PINTO, J. M. de R. Remuneração adequada do professor: desafio à educação brasileira. **Revista Retratos da Escola**, Brasília, v. 3, n. 4, p. 51-67, jan./jun. 2009.

PINTO, J. M. R.; ALVES, T. O impacto financeiro da ampliação da obrigatoriedade escolar no contexto do FUNDEB. **Educação e Realidade**, [S. l.], v. 36, p. 605-624, 2011.

SILVA, M. R. da. Direito à educação, universalização e qualidade: cenários da Educação Básica e da particularidade do Ensino Médio. **Jornal de Políticas Educacionais**, [S. l.], v. 9, p. 61-74, 2015.

SILVA, M. R.; ARAÚJO, M. L. de A. Educação Na Contramão Da Democracia - A Reforma Do Ensino Médio No Brasil. **Revista Trabalho Necessário**, [S. l.], 19, n. 39, p. 6-14, 2021.

SOUZA, Â. R. de; GOUVEIA, A. B. Os desafios atuais referentes ao financiamento de uma educação de qualidade. **FINEDUCA - Revista De Financiamento Da Educação**, [S. l.], v. 2, 2012. Available at: https://seer.ufrgs.br/index.php/fineduca/article/view/40786. Access: 10 Jan. 2024.

Recognitions: Federal University of Panará (UFPR), Postgraduate Program in Education

(PPGE)

Financing: Not applicable.

Conflicts of interest: Not applicable

Ethical approval: The work uses secondary sources, therefore according to the CEP CONEP System standards it does not need to be evaluated by CEP. The ethical commitment of the researchers takes as a reference the basic guidelines for integrity in scientific activity by the CNPQ and the discussions on research ethics by the ANPED.

Availability of data and material: The sources used are available at the Educational Data Laboratory / UFPR and on the INEP website

Author contributions: Adriana Palu – organization of data, analysis and construction of the text. Andréa Barbosa Gouveia – discussion of data and review of the text.

Processing and editing: Editora Ibero-Americana de Educação.

Review, formatting, standardization and translation.

