

Efficacy, Efficiency, and Effectiveness in Public Education: Critical Foundations for a New Administrative Rationality¹

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Abstract: This conceptual article offers a critical, theoretically grounded reconceptualization of efficacy, efficiency, and effectiveness in educational administration and assessment. In response to semantic ambiguity, technocratic appropriations, and the absence of consistent normative criteria, it develops an epistemological clarification grounded in an interdisciplinary review and an original interpretive framework, culminating in rigorous, context-sensitive definitions of the Three Es. It associates efficacy with instrumental rationality and efficiency with technical rationality, while distinguishing effectiveness, understood as effects produced in real-world contexts, from full effectiveness, conceived as an ethical-political criterion oriented toward social justice, the common good, and meaningful change in the lives of members of the educational community. It argues that the dominance of instrumental and technical rationalities compromises the formative value of assessment and proposes reversing the technocratic hierarchy of the Three Es by subordinating goal attainment and resource optimization to the educational value of the effects produced, thereby recentering school governance on full effectiveness. A critical and operational matrix, illustrated through a heuristic example, reveals evaluative imbalances and implications for public policy. Full effectiveness therefore requires educational rigor, ethical deliberation, and contextual sensitivity, while revaluing pedagogical judgment and public schooling as a site of educational justice.

Keywords: assessment; educational administration; efficacy; efficiency; full effectiveness

Eficacia, eficiencia y efectividad en la educación pública: Fundamentos críticos para una nueva racionalidad administrativa

Resumen: Este artículo conceptual propone una reconceptualización crítica de la eficacia, la eficiencia y la efectividad en la administración y evaluación educativas. Ante la ambigüedad semántica, las apropiaciones tecnocráticas y la falta de criterios normativos consistentes, desarrolla una clarificación epistemológica basada en una revisión interdisciplinaria y una matriz interpretativa original, de la que derivan definiciones rigurosas y sensibles al contexto de las tres E. Vincula la eficacia con la racionalidad instrumental y la eficiencia con la racionalidad técnica, distinguiendo la efectividad, entendida como efectos reales en contexto, de la efectividad plena, concebida como criterio ético-político de justicia social, bien común y transformación de la comunidad educativa. Argumenta que la hegemonía de las racionalidades instrumental y técnica compromete el valor formativo de la evaluación y propone invertir la jerarquía de las tres E, subordinando metas y recursos al valor educativo de los efectos y recentrando la gobernanza escolar en la efectividad plena. Presenta una matriz crítica y operativa, ilustrada con un ejemplo heurístico, que evidencia desequilibrios evaluativos e implicaciones para la política pública. Concluye que la efectividad plena exige rigor formativo, deliberación ética y sensibilidad contextual, revalorizando el juicio pedagógico y la escuela pública como espacio de justicia educativa.

Palabras-clave: administración educativa; evaluación; efectividad plena; eficacia; eficiencia

Eficácia, eficiência e efetividade na educação pública: Fundamentos críticos para uma nova racionalidade administrativa

Resumo: Este artigo conceptual propõe uma reconceção crítica e teoricamente fundamentada da eficácia, da eficiência e da efetividade na administração e avaliação educativas. Perante a ambiguidade semântica, as apropriações tecnocráticas e a ausência de critérios normativos consistentes, desenvolve uma clarificação epistemológica, sustentada numa revisão interdisciplinar e numa matriz interpretativa original, que culmina em definições rigorosas e contextualmente sensíveis dos 3Es. Associa a eficácia à racionalidade instrumental e a eficiência à racionalidade técnica, distinguindo a efetividade, entendida como efeitos reais produzidos em contexto, da efetividade plena, concebida como critério ético-político orientado pela justiça social, pelo bem comum e pela transformação da vida dos membros da comunidade educativa. Argumenta que a hegemonia das racionalidades

instrumental e técnica compromete o valor formativo da avaliação e propõe inverter a hierarquia tecnocrática dos 3Es, subordinando o cumprimento de metas e a otimização de recursos ao valor educativo dos efeitos e recentrando a governação escolar na efetividade plena. Apresenta uma matriz crítica e operativa, ilustrada por um exemplo heurístico, que evidencia desequilíbrios avaliativos e implicações para a política pública. Conclui-se que a efetividade plena exige articular rigor formativo, deliberação ética e sensibilidade contextual, revalorizando o juízo pedagógico e a escola pública como espaço de justiça educativa.

Palavras-chave: administração educativa; avaliação; efetividade plena; eficácia; eficiência

Efficacy, Efficiency, and Effectiveness in Public Education: Critical Foundations for a New Administrative Rationality

Contemporary educational management is permeated by discourses and practices that emphasize, almost hegemonically, measurable outcomes, the maximization of efficiency, and control through technical evaluation instruments.

Public policy has extensively incorporated the three concepts referred to here as the “3Es” (efficacy, efficiency, and effectiveness), rarely accompanied by epistemological or ethical discussion. For terminological clarity, throughout this English version, efficacy, efficiency, and effectiveness render the Portuguese *eficácia*, *eficiência*, and *efetividade*, respectively. This is an article-specific analytical convention and does not imply uniform terminological equivalence across the Anglophone literature. Their presence in reform discourses, evaluation agendas, and school governance tends to be naturalized, obscuring the semantic complexity and normative potential they contain.

Appearing neutral, the technical discourse surrounding the 3Es masks their appropriation by logics of regulation and measurement. This transposition impoverishes the evaluation debate and obscures its political, ethical, and pedagogical dimensions. Evaluation mechanisms have been converted into instruments of bureaucratic control, removed from the substantive purposes of public education (Afonso, 2009).

The dominance of performative logics and managerial frameworks has depoliticized school management and imposed a technocratic regulatory model centered on indicators, rankings, and the contractualization of targets (Apple, 2017). This model promotes a culture of accountability based on the production of rapid results, tending to reduce efficacy to compliance with external standards, efficiency to cost containment, and effectiveness to the attainment of quantifiable indicators, within a broader framework of instrumental, flexible, and formally decentralized rationalities (Boltanski & Chiapello, 2020).

Systematized comparative evidence shows that PISA influences educational reforms through international comparison, the production of evidence, and the diffusion of frameworks for quality and equity, without its effects translating linearly or uniformly into substantive improvements (Li et al., 2025). As Afonso (2012) emphasizes, the consolidation of neoliberal/managerialist accountability mechanisms has reconfigured educational governance, deepening the evaluative state and inducing quasi-market and surveillance logics that shift the focus of education toward measurement and control.

Maroy and Pons (2018) analyze how results-based regulation, inspired by New Public Management (NPM), reconfigures school action by introducing measurable objectives, monitoring through indicators, and accountability mechanisms, turning schools into performance-oriented organizations subject to pressure. The modalities vary: in Francophone contexts, neobureaucratic accountability based on contractualization and internal indicators predominates, whereas in Anglo-Saxon contexts “hard” forms prevail, involving public comparison among schools. In the French

case, the incorporation of NPM took a partial and hybrid form: administrative and financial mechanisms of accountability, evaluation, and audit coexisted with a persistent bureaucratic structure and had limited effects on teachers' work (Derouet, 2017). Mehta (2013a) argues that the logic of accountability weakens teachers' professional judgment by subordinating it to external mechanisms of measurement and control. Research on standardized testing, in turn, documents adverse effects on teaching and learning, with greater impact on the most vulnerable communities (McNeil, 2000; Nichols & Berliner, 2007).

In this context, this article proposes a critical reconceptualization of the 3Es through a matrix that associates them with three rationalities. Instrumental rationality, centered on the attainment of objective goals, corresponds to efficacy; technical rationality, oriented toward the optimization of processes and the means-ends relationship, structures efficiency; and ethical rationality, grounded in justice, equity, and educational transformation, underpins full effectiveness. These rationalities are not merely operational categories: they express distinct political and epistemological projects, with direct implications for public policies, evaluation mechanisms, and school governance.

We propose an ethical inversion of the hierarchy of the 3Es: rather than subordinating effectiveness to efficacy and efficiency, efficacy and efficiency should be reoriented in light of full effectiveness, understood as education's capacity to produce socially relevant, pedagogically meaningful, and ethically grounded effects. Efficacy and efficiency are necessary; the point is to recenter them under full effectiveness, which gives them meaning and limits.

This inversion entails a break with performative logic and technocratic models of evaluation consolidated since the 1980s. Such a break responds to the diffusion of regimes of performativity (Ball, 2003), the managerial naturalization of the "new spirit of capitalism" (Boltanski & Chiapello, 2020), and the expansion of high-stakes testing and accountability policies (Ravitch, 2010), calling for a critical reading of educational administration as a political, ethical, and pedagogical field.

In this article, "effectiveness" is used in the descriptive sense of real-world impact, whereas "full effectiveness" denotes the ethical criterion that guides ends and means and frames judgment regarding justice, pedagogical meaning, and the durability of effects, reordering the hierarchy of the 3Es by subordinating efficacy and efficiency. Full effectiveness is advanced as a relevant concept with humanistic scope in educational administration, without negating the relevance of efficacy and efficiency, but proposing their reconfiguration from an ethical-transformative horizon. The proposal arises from the need for solid, theoretically grounded definitions of efficacy, efficiency, and effectiveness within a critical reconfiguration motivated by a research project on school bureaucracy and its impacts on educational action and is connected to real problems of everyday school life that give it empirical relevance.

To fulfill this objective, a qualitative, conceptual, and critical theoretical approach was adopted, grounded in an interdisciplinary review of the literature. The analysis was organized around three axes: (i) a historical-conceptual reconstruction of the 3Es; (ii) a critique of technocratic appropriations; and (iii) the formulation of an interpretive matrix oriented toward educational justice, transformation, and the common good. Without direct empirical data collection, it draws on conceptual evidence and documented experiences.

Review of Existing Knowledge and Theoretical Foundations

The dimensions discussed here under the labels efficacy, efficiency, and effectiveness stand out as pillars of contemporary governance (OECD, 2023a; Pollitt & Bouckaert, 2017), but their appropriation in education has proved ambiguous, technocratic, and marked by semantic shifts.

Disciplinary Origins of the 3Es and Conceptual Transpositions

The three concepts entered the educational field through transposition rather than internal generation, originating in different disciplines with their own purposes, methods, and values. In the historical-conceptual reading proposed here, scientific management privileged the standardized execution of tasks, the rational division of labor, and the maximization of productivity, elements later associated with operational conceptions of efficacy and efficiency (Taylor, 1911). Their appropriation in education requires theoretical caution, historical awareness, and epistemological vigilance, because importing categories without critical adaptation can generate distortions, imprecise uses, and undesirable normative consequences.

Within the same process through which organizational rationalities were consolidated in the field of administration, management by objectives gave centrality to the explicit definition of ends as a guiding criterion for action, as systematized by Drucker (1954).

In education, school effectiveness research gained prominence through seminal studies such as the Coleman Report (Coleman et al., 1966), which highlighted the impact of socioeconomic context on outcomes, and the work of Edmonds (1979) and Rutter et al. (1979), which identified characteristics of “effective schools” capable of mitigating inequalities. In their wake, Jencks et al. (1972) emphasized the weight of social origins, while the effective schools literature showed real variation among schools and teachers; even so, methodological advances confirmed that context and social composition remain decisive (Reynolds et al., 1996). It is important to emphasize that, in its original formulation, the movement sought to enhance educational effectiveness in contexts of social vulnerability; however, the rendering of effectiveness in Portuguese as *eficácia*, together with its subsequent technocratic diffusion, obscured this transformative dimension, consolidating a decontextualized and prescriptive evaluation model. Hence the risk that policies centered only on efficacy (metrics) and efficiency (costs) may petrify educational action if they are not subordinated to the ethical criterion of full effectiveness. The distinction between metrics and public value is not specific to education: in health, the actual usefulness of a substantial amount of clinically “efficacious” research that is of little relevance to practice has been debated (Ioannidis, 2016).

Critical Transposition to the Educational Field

The uncritical transposition of the 3Es into education favors technocratic approaches that reduce them to operational metrics, obscuring the political and humanistic purposes of education (Lima, 2008). Bureaucracy organizes and standardizes school processes, but it also imposes slowness, formalism, and unjust practices, compromising teacher autonomy and effectiveness (Balıkçı, 2024). This matrix was consolidated with the global diffusion of New Public Management (NPM), based on accountability, results-oriented management, and market mechanisms (Hood, 1991; Verger & Normand, 2015).

The Organisation for Economic Co-operation and Development (OECD) has played a central role by promoting PISA and TALIS, whose global benchmarks have contributed to converting the 3Es into normative standards of educational governance (OECD, 2019a, 2023b). Beyond outcomes, structural equity depends on resources, access, and teacher distribution; comparative indicators reveal persistent asymmetries in these dimensions, with effects on educational opportunities (OECD, 2025). Evaluation, in turn, configures power relations in the definition of criteria, purposes, and uses (Hanberger, 2022).

In classical administration, efficacy is associated with the attainment of previously defined objectives, taking goal achievement as a criterion of success. In theorizing bounded rationality, Simon (1947) shows that administrative action involves selecting alternatives consistent with organizational purposes under conditions of imperfect information, contributing to the

understanding of efficacy adopted here. Parsons (1956), in turn, frames goal attainment as a central function of organizations, articulated with system stability and cohesion.

Efficiency, for its part, was shaped by the instrumental logic of scientific management and by economic rationality. Koontz et al. (2012) emphasize that efficiency concerns optimizing the relationship between resources used and results obtained, doing more with less. Drucker (1963) contrasts effectiveness and efficiency through the distinction between “doing the right things” and “doing things right,” warning that no degree of efficiency compensates for choosing the wrong objectives. Because effectiveness is Drucker’s original term, it is retained here; this use should not be conflated with the distinct descriptive sense of effectiveness adopted in the present article for effects produced under real-world conditions. He states that “There is surely nothing quite so useless as doing with great efficiency what should not be done at all” (Drucker, 1963, p. 54), anticipating an ethical critique of technocratic management.

The use of effectiveness in the distinct descriptive sense of real-world impact adopted in this article emerged later, particularly in the fields of public policy evaluation and public health, although inconsistent use of the 3Es and the need for common foundations have been documented (Bouza, 2000).

Arretche (1999) distinguishes between efficacy, understood as goal attainment, and effectiveness, understood as real social impact. Donabedian (1990), a foundational reference in health, distinguishes among efficacy (results under ideal conditions), effectiveness (impact under real-world conditions), and efficiency (the cost-benefit relationship). His contribution emphasizes that efficacious interventions may not be effective if they do not generate relevant transformations in people’s lives.

In economics, “Pareto efficiency” considers a state efficient when no one can be made better off without making someone else worse off (Pareto, 1919). However, this criterion does not, by itself, consider the justice of the initial distribution and may therefore be compatible with profound inequalities (Samuelson & Nordhaus, 2011). Efficacy in this field tends to be absorbed into the logic of maximization; effectiveness, in turn, appears only in analyses of macroeconomic impact, generally dissociated from social justice.

In engineering and in areas of physics and biology, the 3Es appear mainly as operational and quantitative categories, although they do not constitute a uniform terminological triad. In systems engineering, measures of effectiveness make it possible to formulate criteria for success and distinguish overall effectiveness from measures of technical performance (Sproles, 2002). In physics, photometry distinguishes luminous efficacy, defined as the luminous flux produced per unit of power, from luminous efficiency, expressed as a dimensionless ratio of energy conversion (Agrawal et al., 1996); in plant biology, photosynthetic efficiency is analyzed in terms of losses in energy transduction, from light interception to carbohydrate synthesis and crop yield (Zhu et al., 2010). These uses reveal a rationality centered on the measurement of objectives, resources, performance, and effects, but also a semantic heterogeneity that cautions against the direct transposition of these concepts into education.

In the social sciences, by contrast, effectiveness acquires greater normative density. In light of Fraser’s (2003) framework of justice, this greater normative density can be articulated with redistribution, recognition, and parity of participation. Within this framework, effectiveness is not reduced to impact but incorporates substantive transformation and the redress of multidimensional injustices. By emphasizing the expansion of real freedoms, Sen (1999) reinforces this ethical dimension of public action. In Brazilian educational administration, Davok (2007), drawing on the multidimensional paradigm of educational administration and connecting it with Scriven’s (1991) distinction between merit and worth, associates efficiency and efficacy with the merit of educational objects and effectiveness and relevance with their worth. This tradition constitutes a relevant

antecedent, although it maintains effectiveness and relevance as distinct criteria. In this article, this normative densification of effectiveness is termed “full effectiveness”: a more demanding criterion that evaluates the value and real effects of policies from the perspective of the subjects involved.

The disciplinary diversity of the genealogies and uses of the 3Es reveals epistemic disputes. In their operational meanings, the three concepts can be mobilized to measure objectives, resources, performance, and effects; in the reconfiguration proposed in this article, full effectiveness also interrogates the legitimacy and relevance of those objectives and the impacts produced. In education, this gives rise to a divide between technical-instrumental and ethical rationalities, particularly decisive when the purpose is not merely to achieve outcomes, but to form subjects, construct meaning, and promote justice. This divide is also inscribed in the history of the modern school, whose bureaucratic structures, shaped by Weber’s (2022) model of legal-rational domination, express a functionalist rationality based on predictability, hierarchy, and procedural obedience. Yet this complexity is rarely recognized: the 3Es are treated as neutral and operational categories, while their normative and epistemological roots are ignored. This neglect has favored the colonization of the educational sphere by instrumental logics, replacing critical reflection with quantification and pedagogical judgment with technical compliance. Critically reconstructing the meanings and uses of the 3Es is a condition for repositioning evaluation within a horizon of justice and emancipation.

Semantic Ambiguities, Technocratic Appropriations, and Evaluation Fallacies

The diffusion of efficacy, efficiency, and effectiveness in education has been marked by uncritical and technocratic appropriation, without epistemological clarification or ethical framing; indiscriminate use of these terms fosters a false technical neutrality and obscures political and normative implications. Selectively appropriated from different disciplinary traditions, especially economics and public administration, the 3Es have often been converted into management and evaluation instruments detached from the substantive purposes of education. This appropriation tends to privilege optimization and resource management, shaping educational processes according to criteria external to their formative nature. In contrast, Brookhart (2024) emphasizes that teachers’ assessment knowledge and skills should be understood as contextual and situated.

This reductionist appropriation is manifested in the terminological confusion generated by the controversial translation of the English term effectiveness into Portuguese as *eficácia* in international documents and public policy reports. Such confusion erases the distinction between meeting formal goals (*eficácia*, rendered in this article as efficacy) and producing real, just, and lasting impacts (*efetividade*, rendered here as effectiveness). As Sano and Montenegro Filho (2013) emphasize, conceptual confusion among efficiency, efficacy, and effectiveness, resulting from the improper overlap of processes, results, and social impacts, tends to favor evaluation models excessively centered on quantifiable outcomes, with limited capacity to apprehend the social and contextual impact of public policies, including educational policies. In public policy evaluation, the 3Es are often articulated with different stages of the decision-making cycle, with efficiency and efficacy mobilized mainly during planning and monitoring, whereas effectiveness tends to be relegated to ex post impact evaluations. This contributes to reducing effectiveness to a criterion for final verification of the effects produced and reinforces an instrumental reading of evaluation, oriented more toward the efficient execution of previously defined decisions than toward critical and ethical deliberation on policy ends and their substantive social value.

An example of this distortion can be found in the way OECD and World Bank documents operationalize effectiveness primarily by reference to improvements in outcomes, learning, and the functioning of systems. In the critical reading proposed here, this operationalization tends to favor an instrumental meaning of the concept, linked to the attainment of measurable goals and insufficient to capture the ethical and transformative density that this article associates with full

effectiveness (OECD, 2013; World Bank, 2018). This functionalist reduction contributes to legitimizing a technocratic rationality of evaluation at the expense of ethical-political approaches oriented toward educational justice.

Ravitch's (2010) critique of the standardized testing system in the United States highlights the risks of this logic. By promoting a culture of statistical accountability, the accountability model implemented through No Child Left Behind encouraged curriculum narrowing, the exclusion of vulnerable students, and the devaluation of the school's formative dimension. Biesta (2010), in turn, distinguishes between technical responsibility, centered on goals and indicators, and educational responsibility, which recognizes the intrinsic value of the formative process and pedagogical relationships. This distinction is fundamental to understanding that efficacy, when decontextualized, can subvert the very purposes of education.

The Culture of Performativity and the Crisis of Evaluation

In highly centralized contexts, these dynamics intensify. In Portugal, the centrality accorded to national examinations, school rankings, and formal targets reinforces a performative logic that tends to obscure the school's educational mission. This tension between compliance and innovation is also evident in external school evaluation, where innovation appears as a marginal dimension with no significant relationship to the ratings assigned (Serra et al., 2023). In Chile, vouchers targeted at poorer students have been associated with improvements in performance and equity (Neilson, 2021), while the market-oriented education system has remained marked by very high levels of socioeconomic segregation (Valenzuela et al., 2014). Such cases show that specific improvements in outcomes can coexist with systemic problems of justice and equity, converging on more measurement with visible administrative effects but little translation into substantive educational value. In the terms proposed here, this pattern can be understood as model fixing, based on administrative adjustment through incentives and sanctions, rather than model changing, oriented toward substantive transformation of ends and means (Levatino et al., 2024; Yoon, 2024).

The technocratic rationality that underpins the appropriation of the 3Es is fueled by external regulation based on numerical targets and audits. Indicators do not merely measure: they produce realities and institutional "successes" without substantive improvements (Dahler-Larsen, 2014), that is, administrative gains without clarifying for whom and on what evidence they constitute educational value. In light of Mehta (2013b), this phenomenon can be interpreted as a form of superficial efficacy, in which schools develop adaptive capacities to respond to external demands without significantly changing pedagogical practice or student outcomes.

Performativity imposes surveillance and public demonstration anchored in metrics, within a project of control/normalization (Apple, 2004; Ball, 2016; Calderwood, 2026). In this way, efficacy slips into statistical compliance, efficiency into cost containment, and effectiveness loses normative content: the school becomes auditable and legitimation is conflated with metrics rather than with the right to education. Measurable outcomes do not, by themselves, amount to educational value: metrics describe, but educational value requires justification.

This model affects teacher subjectivity: fear of evaluation promotes defensive practices, strain, and self-censorship (Conley & Glasman, 2008), while governmentality produces "auditable" subjects who self-regulate according to external standards even when those standards conflict with professional purposes (Foucault, 2010).

The Emergence of an Ethical-Political Alternative

Against this logic, Fraser's (2003) framework of justice supports the argument that the full effectiveness of a policy requires redistribution, recognition, and parity of participation. Sen (1999) reinforces this perspective by emphasizing that the value of public policies lies in their capacity to

expand subjects' real freedoms, not merely to achieve aggregate targets. From this perspective, full effectiveness is established as a substantive normative criterion oriented toward justice, social transformation, and educational meaning.

As Biesta (2010) warns, to evaluate is ultimately to choose the kind of education one seeks to build, and that choice is always political, ethical, and formative. It is therefore urgent to free evaluation from its technocratic framing, placing effectiveness back at the center of the debate as a guiding criterion for policies intended to be just, transformative, and rooted in the concrete experience of educational actors.

Performative Governance and the Crisis of Professional Judgment

The advance of results-based evaluation policies has consolidated a governance regime inspired by NPM that redefines relations among the state, schools, and professionals, translating into the centrality of performance measurement and the diffusion of managerial models on a global scale (Ball, 2012). Evaluation ceases to be a situated pedagogical practice and becomes a technology of governance: externalized, systematic, and hierarchically controlled.

Ball (2016) describes this phenomenon as a culture of performativity: subjects are continually called upon to demonstrate, quantify, and justify their value through external metrics. This leads to the internalization of external criteria as a form of professional recognition, naturalizing efficacy and efficiency as synonyms for quality (Ball, 2003). Performativity is based on individual accountability and a morality of efficacy, disregards contexts, and empties pedagogical content; it transforms professional authority, which comes to depend less on pedagogical knowledge and more on compliance with established evaluation parameters.

Pedagogical judgment, the critical, situated, and ethical capacity to decide in context, is in crisis. In light of Mehta (2013a), this process can be interpreted as a form of teacher deprofessionalization: the language of technical excellence legitimizes the loss of autonomy and the homogenization of practices. This transformation institutionalizes algorithmic control, erodes professional autonomy, and redirects pedagogical action toward compliance with standardized targets (Ball, 2016). The critique concerns hegemonic and decontextualized uses of evaluation, not its existence as a structured and technically grounded practice.

Foucault (2010) provides a theoretical framework for reading this governmental rationality: it constitutes governable subjects who self-regulate according to external norms and incorporate control mechanisms as their own will. Performativity is not merely an evaluation system; it is a technology for producing subjectivities. The teacher deemed efficacious internalizes criteria of success defined by the administration and reproduces them in professional practice.

This model is widely disseminated through international organizations such as the OECD, whose PISA and TALIS reports function not only as instruments of comparative analysis but also as platforms for circulating frameworks concerning quality, performance, and the organization of education systems (OECD, 2013, 2019a). In the critical reading developed in this article, the centrality accorded to measurability, comparison, and benchmarking can favor a narrow view of quality and reduce evaluation to a predominantly technical operation. The continuity and updating of these instruments, exemplified by PISA 2022 (OECD, 2023b), demonstrate the growing centrality of comparative measurement in educational governance, whose impacts on national policies are widely documented (Gorur, 2016; Li et al., 2025).

This rationality is manifested in the proliferation of external evaluation systems and the instrumental use of data for institutional control. As Saura and Muñoz (2016) observe, pressure for results generates anxiety, competition, and defensive practices. The intensification of technocratic evaluation contributes to professional strain, weakens pedagogical relationships, and reduces teaching to repetitive and quantifiable tasks (Saura, 2015).

In digitized blended-learning contexts, teachers may feel under constant observation even without formal surveillance mechanisms, with effects on well-being, professional confidence, and relationships with students (Calderwood, 2026); a culture of fear and blame takes hold, undermining cooperation and pedagogical creativity.

Digital Bureaucratization and the Erosion of Pedagogical Judgment

There is a growing dependence on platforms and algorithms for collecting, analyzing, and visualizing performance data. As Lima (2024a) notes, the computerization of evaluation has been treated as debureaucratization but it deepens bureaucracy in digital forms, reinforcing surveillance and control. This “digital bureaucracy” widens the distance between the act of educating and evaluation instruments, turning teachers into system operators rather than pedagogical interpreters of reality.

Full effectiveness requires a critical reinterpretation of bureaucracy in school administration. Although conceived as a mechanism of procedural equity, bureaucracy has become an instrument of technocratic control serving external rationalities. Protocols, reports, and platforms serve pedagogical improvement less than the production of favorable statistics that support performative narratives and legitimize cost containment. In Portugal, teachers identify bureaucracy as a central obstacle to the quality of teaching because it redirects attention toward redundant tasks with no educational value (Alonso et al., 2022). TALIS 2018 confirms this diagnosis: administrative overload and pressure from nonteaching tasks affect teachers and school leaders across several education systems (OECD, 2019a).

In many contexts, teachers are pressured to treat educational objectives as having been achieved, even if only in statistical terms; this constitutes symbolic violence that subjects teachers to the logic of results (Saura, 2015) and accentuates the dissociation between educational ends and administrative means, hollowing out pedagogical substance (Derouet, 2005). The digitization of monitoring mechanisms tends to reconfigure pedagogical judgment, orienting it toward forms of algorithmic compliance (Calderwood, 2026); bureaucracy, in turn, far from neutral, conceals inequalities and contributes to processes of deprofessionalization. Overcoming this framework requires restoring pedagogical judgment and recentering the school on knowledge, emancipation, and transformation. The logic of evaluation is inverted: evaluation is conducted not to improve, but to legitimize decisions, justify policies, and distribute rewards or sanctions; the focus shifts from understanding processes to quantification, from mediation to verification, and from dialogue to judgment, compromising the critical and emancipatory function of evaluation and incorporating the grammar of flexibility, performance, and strategic legitimation characteristic of the “new spirit of capitalism” (Boltanski & Chiapello, 2020).

As Biesta (2010) concludes, what is at stake in evaluation is not merely measuring what is learned, but deciding what kind of education we want to build.

Conceptual Foundations and Interpretive Proposal

This section presents the article’s theoretical proposal, critically reconfiguring the concepts of efficacy, efficiency, and effectiveness through their articulation with three rationalities: instrumental, technical, and ethical.

Critical Reconfiguration of the Concepts and Their Underlying Rationalities

The apparent familiarity of the terms efficacy, efficiency, and effectiveness in education does not guarantee a rigorous understanding of their meanings. Consolidating a critical theory of these

concepts in educational administration requires deconstructing hegemonic technocratic readings and constructing an alternative framework oriented toward educational justice and the common good. This proposal is based on an interpretive matrix that distinguishes three rationalities: instrumental, technical, and ethical, corresponding respectively to efficacy, efficiency, and full effectiveness.

As an ethical-political rationality, full effectiveness constitutes a guiding principle for educational decisions, expressing institutional commitment to meaningful impacts on subjects' lives and to practices guided by justice and meaning.

The proposed correspondence constitutes a critical reconfiguration of the classical tradition, in which "technical" and "instrumental" are often merged under the primacy of efficiency, understood as the optimized choice of means to achieve defined ends, with technical rationality operating as the procedural and standardizing extension of that logic within a functionalist organizational framework (Parsons, 1956; Simon, 1947; Weber, 2022). We argue that, in education, this arrangement has fueled performative mechanisms centered on control and results (Ball, 2003). By contrast, critical-professional perspectives distinguish technical rationality (procedural, centered on control and optimization) from instrumental rationality (teleological, with means-ends relations oriented toward objectives) and reintroduce the ethical axis as a condition for judging the educational value of what is done (Habermas, 2022; Leitch & Day, 2000; Munby, 1989).

At the level of criteria, the OECD's English-language terminology uses effectiveness for the achievement of objectives and results and efficiency for delivering results in an economic and timely manner (OECD, 2019b). This illustrates the terminological overlap addressed here: in the analytical vocabulary adopted in this article, goal attainment is designated as efficacy, whereas effectiveness is reserved for real effects produced in context. In educational practice, these dimensions have been operationalized through audit procedures, the production of evidence, and document-based surveillance, formalizing teacher performance (Power, 1997) within an environment of performativity (Ball, 2003), often oriented by external targets. In this proposal, we rearticulate these dimensions with the rationalities: efficacy-instrumental; efficiency-technical; full effectiveness-ethical. Thus, efficacy is governed by an instrumental rationality centered on goal attainment; efficiency by a technical rationality of procedural optimization and control; and full effectiveness by an ethical rationality oriented toward social justice, transformation, and pedagogical meaning (Ball, 2003; Habermas, 2022; OECD, 2019b; Power, 1997).

By instrumental rationality, we mean a means-ends teleology centered on goal attainment (efficacy) (Habermas, 2022); by technical rationality, procedural optimization (standardization, reduction of time/cost, control of variability) (efficiency) (OECD, 2019b; Leitch & Day, 2000); and by ethical rationality, the orientation of ends and means by educational values of justice, well-being, and public meaning, which makes it possible to judge full effectiveness and critique performative reductionisms (Ball, 2003; Biesta, 2007).

Within this framework, ethical rationality is ethical-political: it does not hover above politics; it is co-produced with politics in struggles over the legitimation of ends, the distribution of power, and the voices that count in evaluation. Full effectiveness therefore subordinates efficacy (instrumental) and efficiency (technical), orienting them toward justice, meaning, and transformation.

For a concise reading of the matrix, we adopt three questions: Efficacy: Were the goals achieved? Efficiency: To obtain the same results, could we have used less time, lower costs, and fewer resources without degrading the learning experience? Full effectiveness: Did what we did have just, meaningful, and lasting educational value? For whom and on what evidence? Political question (cross-cutting): Who defined the goals and with what mandate? Who gains/loses from the criteria? Is there real participation and contestation?

We analytically separate efficacy/efficiency (ends achieved vs. economy of means) and recenter full effectiveness as the normative criterion that subordinates the others: efficacy-instrumental rationality, efficiency-technical rationality, full effectiveness-ethical rationality. This reconfiguration responds to the risk of a results-driven logic and indicator-based management and affirms that, in education, the value of what results cannot be decided solely by goals and costs (Biesta, 2007; Ball, 2003; OECD, 2019b).

This proposal does not deny the analytical value of classical approaches but configures an interpretive and propositional matrix oriented toward the normative demands of the educational field.

The inversion of the hierarchy is conceptually and politically necessary. When evaluation is reduced to goal attainment or the optimization of means, it can produce positive indicators even in contexts of exclusion; efficacy and efficiency can thus become technically acceptable but ethically unacceptable. Recentering evaluation on full effectiveness entails breaking with performative logic and adopting justice and transformation as guiding criteria.

Critique of Performativity and Technocratic Formalism

Technical rationality is manifested in meticulous planning and the pursuit of compliance, revealing an obsession with targets. In school management, it is expressed through plans and reports that privilege measurable performance, consolidating a culture of quantification in which measurement becomes an end in itself and pedagogical judgment is replaced by algorithms and protocols, a phenomenon analyzed by Espeland and Stevens (2008). Yet what is easy to measure does not always correspond to what is most educationally meaningful.

The replacement of pedagogical judgment by algorithms and protocols reinforces the bureaucratic logic that Mehta (2013b) contrasts with the professionalization of the education sector. The rhetoric of technical excellence thus legitimizes the loss of teacher autonomy and the standardization of practices, turning evaluation into an instrument of regulation. Consistent with this, Saura and Muñoz (2016) describe a culture of blame and self-control that produces “auditable subjectivities.” This tendency permeates evaluation protocols, which rarely include criteria of full effectiveness. To evaluate is not merely to verify what was planned; it is to inquire whether what was done had just, meaningful, and lasting educational value.

This process can be described as a form of performativity emptied of educational value, in which only what can be counted comes to count, even when it adds nothing to education (Ball, 2003; Biesta, 2010). Ball (2016) revisits this critique by showing how performativity mechanisms operate as forms of compulsory visibility, internal surveillance, and institutionalized self-control, undermining pedagogical judgment and professional autonomy.

Technical rationality is grounded in the logic of efficiency. Although organizationally useful, when mechanically applied to education it tends to obscure education’s formative and emancipatory values. In light of Fraser (2003) and Sen (1999), efficiency detached from justice, recognition, and the expansion of real freedoms can deepen inequalities and favor those already privileged. Cost-benefit logic then becomes an implicit normative criterion, disregarding effects that are not directly measurable and eclipsing the formative dimension of educational action.

Instrumental rationality is oriented toward the fulfillment of ends (efficacy) and, without ethical scrutiny, can recenter action on external and short-term goals, producing statistical gains without educational value.

By contrast, the ethical rationality underpinning full effectiveness proposes recentering evaluation on substantive purposes. Evaluation entails asking why and for whom we educate. Donabedian (1990), Biesta (2010), and Fraser (2003) emphasize the importance of evaluating real impacts, not merely formal results, taking into account justice, meaning, and the transformation of

subjects' living conditions. This distinction requires recognizing that goal attainment does not, by itself, guarantee real effects on students' learning or development.

Full Effectiveness as a Normative Criterion

Full effectiveness requires considering redistribution, recognition, and participation as essential criteria of educational action. Within this framework, an interpretive and context-sensitive approach is required, in which evaluation is built on recognition of subjects and active listening to educational communities (Gergen & Gill, 2021).

As Donabedian (1990) argues, an intervention can be technically efficacious without being effective if it does not produce relevant effects in the real lives of its recipients, a distinction that applies fully to educational evaluation. Full effectiveness requires going beyond the measurement of outcomes by incorporating ethical judgment concerning the social, cultural, and relational effects of educational action (Biesta, 2010; Scriven, 1991). Ultimately, it is not technique that determines the value of education, but ethics that guides its ends; full effectiveness should therefore be the principal normative criterion (Fraser, 2003; Sen, 1999).

Proposed Definitions and Interpretive Matrix

The 3Es are understood here as distinct expressions of rationality, rooted in specific assumptions, rather than as merely neutral management instruments. Within effectiveness, a distinction is made between its descriptive meaning, concerning the real effects produced in context, and full effectiveness, which adds an ethical-political judgment concerning the value of those effects. Table 1 presents the definitions proposed for the educational field.

Table 1

Proposed Definitions of Efficacy, Efficiency, Effectiveness, and Full Effectiveness

Concept	Integrated definition
Efficacy	Capacity to achieve objectives. Degree to which established goals are achieved, generally through formal indicators. In education, this may translate into planned outcomes, even when they do not correspond to real or meaningful improvements.
Efficiency	Capacity to optimize human and material resources. Relationship between the means used and the results obtained, seeking to maximize results with minimum expenditure. In education, it is associated with the management of professionals, resources, time, and processes.
Effectiveness	Capacity to produce real effects in context. Considers the effects actually generated, regardless of whether they correspond to the goals originally set.
Full effectiveness	Capacity to create just, positive, and lasting impacts. Normative criterion that assesses whether those effects are relevant, just, pedagogically meaningful, and lasting for subjects and the educational community.

Source: Authors' own elaboration

This reconfiguration is not merely descriptive: it constitutes a theoretical proposal with normative scope, centered on full effectiveness as a guiding principle for school, pedagogical, and policy decisions. As Stake (2004) and Biesta (2010) cautioned, value-oriented evaluation requires resisting the logic of abstract performance and recentring educational judgment on justice, pedagogical meaning, and real impact on subjects' lives.

This matrix does more than classify; it constitutes an interpretive, diagnostic, and normative device that makes it possible to understand meanings hidden within evaluation decisions and to guide reconfigurations based on criteria of educational justice. Table 2 synthesizes this proposal, integrating the conceptual structure of the matrix with the purposes, limits, and possibilities for reconfiguration associated with each rationality.

Table 2

Critical and Operational Matrix of the 3Es

Dimension	Efficacy	Efficiency	Full effectiveness
Rationality	Instrumental	Technical	Ethical
Guiding criterion	Fulfillment of formal goals	Optimization of means and processes	Just, meaningful, and lasting impact
Dominant purpose	Planned outcomes	Resource optimization	Justice, transformation, meaning
Key question	Were the goals achieved?	Could we achieve the same results with less (time/cost/resources), without loss of quality?	Did it generate just, meaningful, and lasting value? For whom? With what triangulated evidence?
Typical indicators	Success rates / formal objectives	Cost-benefit ratio, hours/resource, productivity reports	Testimonies, perceived real-life change, appropriation of knowledge, engagement, and relationships
Institutional examples	Meet examination targets; improve class averages	Use the same test for everyone; reduce the number of lessons per topic; audits	Develop projects with local impact; adapt learning trajectories to students' pace
Operational examples	Analyze results by percentage; compare with previous years	Standardize instruments and schedules; share uniform plans	Listen to students; develop critical mediation and pedagogical diversification; structured tutoring
Critical limitation	Formalism, pressure to meet targets, bureaucratization	Economistic reduction of pedagogy, technicization of processes	Difficulty of measurement, risk of appearing "subjective" if not accompanied by criteria; risk of tokenism (superficial inclusion)
Proposed reconfiguration	Subordinate to pedagogical meaning and educational justice, and review goals in light of public purposes	Integrate efficiency in ways that serve equity, personalization, and the preservation of pedagogical time	Become the central normative criterion of evaluation and governance

Notes: the political axis cuts across the three rationalities (legitimation of ends, distribution of power, participation/voice); Authors' own elaboration.

The triadic structure proposed in this table asserts full effectiveness as the guiding normative criterion for evaluation and educational action.

Recentring evaluation on full effectiveness rejects the technocratic abstraction of results-based management and reintegrates ethical and pedagogical deliberation into the core of evaluative judgment. This substitution of indicators for values constitutes what is termed here the “evaluation fallacy,” in tension with the conception of evaluation as judgment concerning merit, worth, and significance (Biesta, 2010; Scriven, 1991). Overcoming this fallacy is a condition for recentring evaluation on educational justice, understood as a situated, dialogical, and politically oriented practice.

It should be emphasized that this critique does not reject standardized tests. Used with ethical purposes, contextual sensitivity, and clear pedagogical orientation, they can contribute to the full effectiveness of educational action by strengthening real opportunities to learn (Bennett, 2025). Personalization can expand justice for specific profiles, but it is defensible only with evidence of validity and clear rules of comparability, lest it generate new inequalities (Bennett, 2024). Integrated into plural evaluation systems, tests can help identify hidden inequalities, guide evidence-based decisions, and strengthen commitments to educational justice (Levy-Feldman, 2025). More broadly, evaluation mechanisms can contribute to professional development when articulated with feedback, reflection, and appropriate organizational conditions, rather than being treated as ends in themselves (Delvaux et al., 2013). The risk is the technocratic autonomization of evaluation. Rigorous evaluation is not mechanical evaluation: effective evaluation requires listening, justice, and meaning, not merely measurements. Full effectiveness is realized when evaluation combines rigor and ethics, data and context, indicators and transformation.

This perspective rejects both pedagogical leniency, which masks inequalities through superficial evaluations, and technocratic formalism, which absolutizes indicators and ignores the educational value of processes. Promoting full effectiveness requires teaching that is intellectually demanding, epistemologically rigorous, and oriented toward the emancipation of subjects, not a complacent pedagogy devoid of criteria and genuine rigor.

Beyond its conceptual structure and proposals for critical reconfiguration, the 3Es matrix has a strong operational dimension: (i) it denaturalizes the technical language that conceals political rationalities in evaluation discourses; (ii) it diagnoses technocratic distortions and normative asymmetries; (iii) it enables critical readings of public policies, school practices, and management mechanisms; (iv) it guides processes of evaluative reconfiguration based on educational justice; (v) it grounds political-pedagogical proposals aligned with the common good; and (vi) it articulates, within the same movement, theoretical analysis and transformative action.

For application in concrete contexts, operationalization is organized into four stages (Table 3), making the matrix usable in policies, school practices, and evaluation mechanisms and enabling understanding, diagnosis, and reconfiguration of the rationalities underlying educational actions.

Table 3

Stages for Operationalizing the Matrix

Stage	Stage description	Guiding question
1. Identification of the object	Select the educational policy, practice, or mechanism to be analyzed, clearly delimiting its context.	What is being analyzed? What specific phenomenon or intervention is at issue?

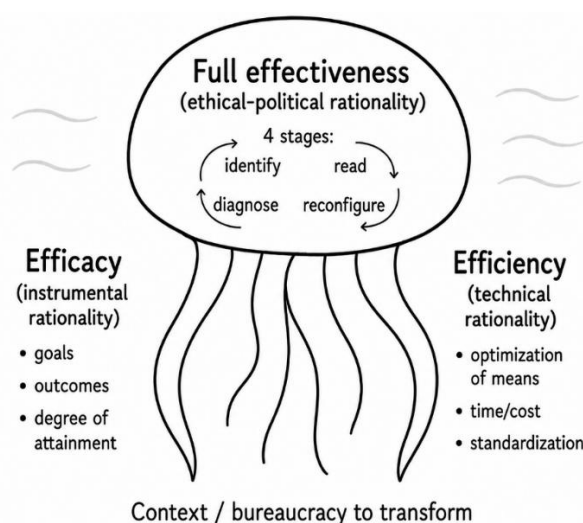
Stage	Stage description	Guiding question
2. Reading through the rationalities	Apply the 3Es framework to identify how efficacy, efficiency, and the real effects produced are manifested, as well as how those effects are valued in light of full effectiveness.	Which rationalities are present or absent? How are they expressed in practice?
3. Critical diagnosis	Evaluate imbalances among the rationalities, the risks involved, and the effects on subjects.	Which rationality dominates? What is being devalued or rendered invisible?
4. Normative reconfiguration	Propose changes consistent with full effectiveness as an ethical criterion, centering action on educational justice.	What would change if full effectiveness were the guiding criterion of practice?

Source: Authors' own elaboration

The 3Es matrix is neither a closed technical instrument nor a mechanical and universal model: it organizes critical analysis, makes rationalities explicit, identifies asymmetries, and guides reconfigurations based on educational justice. It neither replaces reflection nor prescribes solutions; it is a device for critical reading and collective construction whose strength lies in the articulation between diagnosis and proposal, between conceptual analysis and meaningful educational action.

Figure 1 synthesizes the proposed architecture, drawing on the metaphor of the Medusa as a representation of the adopted matrix rather than as a taxonomy. The “cap” symbolizes full effectiveness as the ethical-political rationality that subordinates and guides the others; the tentacles represent the instrumental/efficacy and technical/efficiency domains; the pulsation of the body indicates the four-stage operational cycle (identify → read → diagnose → reconfigure), which is iterative and subordinated to the ethical-political cap; the peripheral network alludes to participation with decision-making power and public, auditable criteria; the surrounding environment refers to the context and to the bureaucracy to be transformed, not eliminated or justified.

Figure 1
“Medusa” of the 3Es



Source: Authors' own elaboration

As with looking directly at the Medusa of Greek mythology (Ovídio, 2014), educational action becomes “petrified” when the 3Es are treated technocratically and in isolation; the antidote is to integrate them under the ethical-political cap, with participation, public criteria, and reflective judgment, so as to confront the 3Es without becoming “petrified.”

The Medusa metaphor is used as a heuristic communication device: it does not replace conceptual analysis or empirical validation and serves exclusively to make visible the ethical-political hierarchy and the iterative cycle identify → read → diagnose → reconfigure, subordinated to full effectiveness.

Illustrative Example of the Matrix: Learning Acceleration Program

For illustration, a heuristic example is presented, applied to an internal learning acceleration program in a school context.

Stage 1. Identification of the Object

A program aimed at students receiving insufficient grades, oriented toward “rapidly catching up” on learning through intensive strategies and preparation for formal tests, in a context of institutional pressure to improve results and meet targets.

Stage 2. Reading Through the Three Rationalities

The rationalities are summarized (see Table 4), together with the cross-cutting political dimension (ends, participation, distribution of costs/benefits).

Table 4

Illustrative (Nonempirical) Application of the Matrix

Rationality	Criterion	Illustrative signs
Instrumental (efficacy)	Fulfillment of formal goals	Emphasis on statistical improvement in grades; imposed numerical targets; accelerated selection of target students.
Technical (efficiency)	Optimization of means and processes	Concentrated schedules; reduction of “regular” instructional time; large groups; weak interdepartmental coordination.
Ethical (full effectiveness)	Just and meaningful impact	Repetitive tasks without pedagogical mediation; absence of emotional support; limited space for the relational meaning of learning.

Source: Authors’ own elaboration

Stage 3. Critical Diagnosis

The reading suggests a predominance of instrumental and technical rationalities (short-term objectives and the administrative management of learning), while ethical grounding tends to remain residual. In each educational practice, it is important to ask: Was it efficacious? Was it efficient? What real effects did it produce? Were those effects just, meaningful, and lasting? This asymmetry is amplified, for example, by pressure to meet quantitative targets, teacher shortages (with assignments poorly aligned with the required profile), excessively large groups, and limited socioemotional support; factors that typically weaken the educational purpose and the right to learn.

Operational checklist: Cap: Are public purposes explicit and legitimate? Tentacles: Have we met goals and optimized means without impoverishing the experience? Pulse: Have we iterated the cycle (identify → read → diagnose → reconfigure) with participation and public criteria?

Stage 4. Normative Reconfiguration Based on Full Effectiveness

A reconfiguration aligned with full effectiveness would require recentring the program on pedagogical mediation, active listening, and personalization, with smaller groups, specific teacher training, interdepartmental coordination, and consistent integration of the relational-emotional dimension. The urgency to “catch up quickly” should give way to a logic of care and meaning, recognizing that learning requires time, connection, and significance.

In sum, the exercise shows how the matrix reveals imbalances characterized by the predominance of efficacy/efficiency and aggravating variables that are often invisible in reports. The challenge is not merely to intervene, but to determine with what rationality and toward what ends. Full effectiveness is not a technical choice; it is an ethical imperative. Empirical validation of this reading requires a dedicated methodological design (sample, sources, techniques, quality criteria).

Critical Discussion: Implications for Education Policy and School Management

By treating the 3Es as expressions of competing rationalities rather than neutral categories, we propose a normative reconfiguration that articulates social justice, educational rigor, and democratic engagement. Both uncritical pedagogical leniency and bureaucratic formalization devoid of pedagogical meaning are rejected, in favor of school governance oriented by ethical and transformative criteria.

School Governance Based on Full Effectiveness

The proposed inversion of the hierarchy of the 3Es, with full effectiveness as the principal normative criterion, constitutes the starting point for rethinking school governance through the matrix of the three rationalities, requiring a profound reconfiguration of educational action.

In recent decades, educational management has been dominated by technical and instrumental rationalities, which have privileged goal attainment, designated here as efficacy, and efficiency as cost containment (OECD, 2019b; Verger & Curran, 2014). This orientation has been strongly driven by transnational comparative evaluation agendas such as PISA, promoted by the OECD, which have diffused a performative and technocratic rationality globally. As Gorur (2016) analyzes, PISA not only measures the performance of education systems but also configures them symbolically, promoting a technocratic view of education based on measurability, international comparison, and the legitimation of ranking-oriented policies. This logic has reinforced a culture of performativity in which the value of educational action is measured through quantifiable, decontextualized, short-term outcomes (Ball, 2003; Ravitch, 2010).

Governance by results promotes centralized control mechanisms, performance contracts, and individualized accountability, distorting the public purpose of education. Evaluation becomes a matter of quantifying, managing, and comparing numbers. The school is converted into an accountability center and administration into a ranking system. Applied to French public schools, this logic has increased pressure on teachers, subordinated pedagogical practices to external objectives and indicators, and reinforced inequalities. Decisions thus come to depend on externally defined metrics that are often detached from the reality and social complexity of contexts (Meuret et al., 2014; Pons, 2017).

By recentring governance on full effectiveness, the focus shifts from measurement to ethical judgment and from compliance to transformation. Full effectiveness requires evaluating not only what was done, but why and for whom, taking contexts and the real effects of educational action into account. This entails valuing educational justice, democratic participation, and the production of meaning. Reorienting school governance around full effectiveness means recovering the school as a public space of emancipation, not merely a functional unit of performance.

Reconfiguring evaluation also entails promoting collegial spaces for critical deliberation, involving teachers, students, and communities in decision-making processes in articulation with the principles of full effectiveness.

Education Policies Under Analysis: Between Formal Efficacy and Substantive Justice

Contemporary education policies based exclusively on efficacy and efficiency, especially those inspired by NPM and centered on targets, external evaluation, performance rewards, and competition, have generated isolated operational gains but aggravated structural inequalities and weakened educational effectiveness. This homogenization is particularly problematic because teachers' assessment knowledge and skills are contextual and situated and cannot be reduced to the uniform application of criteria detached from context (Brookhart, 2024). Such application favors standardized assessments with limited ethical sensitivity.

In the United Kingdom, “academies” managed by private nonprofit trusts were presented as instruments for improving performance, but they did not demonstrate clear and consistent gains and were associated with higher patterns of socioeconomic segregation, without it being possible to attribute that segregation to them causally (Gorard, 2014). This model of individualized accountability and competition for performance can reinforce the prestige of schools with better results while marginalizing those serving more vulnerable populations, a tendency already identified by Ball (2003) in characterizing performativity as a regime of public demonstration oriented toward numerical legitimation rather than justice.

In Spain, “concertadas” schools have adopted a business-oriented management logic that favors mechanisms of student selection and socioeconomic segmentation, compromising equity in access and the quality of education (Parente, 2020). In the same context, the application of the neoliberal concept of “quality” in reforms produced a performative bias (Viñao, 2001).

In France, within the framework of the Contrats d'Objectifs and priority education mechanisms (REP/REP+), policies have been applied with limited territorial differentiation, restricting attention to the specific characteristics of the most vulnerable areas (Cour des comptes, 2018, 2025; Maroy & Pons, 2018) and contributing to the persistence of inequalities and unequal educational outcomes (Meuret & Lambert, 2011).

In Chile, empirical studies show that the school choice system, combined with incentives and mechanisms of competition among schools, generated pronounced social and territorial segmentation, compromising public equity objectives and hindering the effectiveness of education policies (Schneider et al., 2006). In Brazil, Ceará's performance-bonus policy linked SPAECE results to rankings, awards, teacher bonuses, and administrative measures; the study simultaneously records an increase in the percentage of students at the desired level of literacy and a tendency to redirect school work, interfering with the curriculum, ways of teaching and evaluating, and the purposes of schooling (Araújo et al., 2019). These cases show that improvements in indicators or mechanisms of administrative efficacy do not, by themselves, guarantee full effectiveness, particularly when they coexist with segmentation, high-stakes control, or instrumental reconfiguration of practices.

In Portugal, the school inspection model has privileged technical-procedural compliance and the measurement of results at the expense of evaluation with emancipatory potential (Lima, 2011),

while the consolidation of accountability, articulated with discourses of management and autonomy, has revealed tensions and ambivalences in organizational life (Afonso, 2010).

These examples illustrate the limits of a technocratic approach to education policy. When efficacy and efficiency disregard justice, they produce exclusion, depoliticization, and the reproduction of inequality. International reports such as Barber and Mourshed (2007) contributed to the global diffusion of results-oriented models of systemic improvement, although the report itself gives centrality to teacher selection, training, and the quality of teachers' work. In their policy appropriation in education, these models have often favored an association between educational quality and statistical performance. This association between "quality" and performativity has been criticized as part of a pedagogy of exclusion (Gentili, 1996).

These cases demonstrate that policies can be efficacious and efficient without producing full effectiveness.

Reorienting Education Policies Based on Full Effectiveness

These distortions can be overcome only through policies guided by criteria of educational justice, educational rigor, and systematic attention to effects on those in the most vulnerable circumstances. Along these lines, students' participation and dignity should guide evaluation criteria (Freire, 1970).

It is nevertheless important to recognize that evaluation instruments, even the most standardized, can be integrated into just and formative approaches when conceived with ethical purposes and sensitivity to context. Policy analysis thus reveals the need for operational criteria that express the principles of full effectiveness in practice.

In sum, full effectiveness entails rules for participation with decision-making power and public, transparent criteria, beyond targets and costs. Avoiding technocratic "petrification" requires subordinating goals and costs to the ethical-political cap of full effectiveness, with participatory deliberation and public accountability.

Operational Applications of the Critical Matrix of the 3Es

The proposed theoretical matrix is an instrument for critical analysis and practical application in the design, implementation, and evaluation of education policies, supporting a plural form of evaluation that combines structured mechanisms with contextualized and participatory practices; in each context, it makes it possible to identify the dominant rationality and the risks of governance centered only on goals and results.

The 3Es should guide all dimensions of school life, from pedagogical planning to relationships with families, promoting decisions consistent with ethical criteria, educational impact, and sustainability; the matrix supports processes of reconfiguration anchored in educational justice and pedagogical meaning. As Afonso (2009) emphasizes, evaluation is always a political choice about what is valued and how school reality is represented and must therefore be questioned in terms of its normative orientation.

An illustrative example is the model of autonomy contracts, which in some school systems are often designed around efficacy (fulfillment of learning goals) and efficiency (resource management), reinforcing vertical and standardized accountability; when evaluated through the 3Es matrix, the absence of effectiveness indicators becomes apparent and prevents recognition of local particularities, students' needs, and the relational quality of pedagogical action. As Maroy and Pons (2018) note, this type of results-based regulation tends to turn the school into a space of accountability, weakening its educational role and its symbolic function as a public good.

The same applies to external evaluation systems and school rankings. When used in isolation, they reinforce performative logic and generate strategic behaviors such as teaching to the

test or the indirect exclusion of students at greater risk of failure (Ball, 2003; Ravitch, 2010). Saura (2015) describes the effects of this performative culture as processes of professional strain, the technocratization of teaching, and the distortion of educational purposes in response to formalistic targets. The matrix makes it possible to propose alternative models that combine responsibility with justice, efficacy with meaning, and efficiency with equity, shifting the focus from statistical compliance to the public value of education.

Operationalizing the matrix nevertheless requires appropriate methodological mechanisms. As Stake (2004) emphasizes, educational evaluation cannot be merely technical: it requires contextual understanding, active listening, and democratic deliberation.

Criteria and Limits of Formal Indicators

Full effectiveness requires evaluation to incorporate human dimensions often absent from traditional protocols, such as personal fulfillment, job satisfaction, career guidance, the development of life projects, and subjective well-being. Although difficult to quantify, these dimensions are decisive for assessing the ethical and transformative impact of the school and should be incorporated into any evaluation system committed to educational justice and to genuine success beyond statistical compliance.

Reported positive results often arise from pedagogical leniency or superficial adaptations to formal targets, producing indicators that conceal real deficiencies in students' development (Koretz, 2017). This dissonance between reported performance and actual learning is a central paradox of evaluation that can be overcome only through criteria capable of capturing the substantive effects of educational action and moving beyond the limits of formal indicators.

Evaluating on the basis of full effectiveness entails involving subjects, recognizing plural purposes, and valuing processes as well as outcomes. As Biesta (2009) argues, it is important to reflect critically on what kind of education is being constructed within an ethical, situated, and relational framework.

These requirements are not limited to technical adjustments; they call for structural transformations in how evaluation and educational action themselves are conceived. Critical application of the matrix should be accompanied by political and symbolic reconfiguration of school governance mechanisms, based on four interconnected pillars:

- Repoliticize educational evaluation, recognizing that evaluation means deciding what counts as good, desirable, and legitimate, a decision that is never neutral. Saura (2015) shows how depoliticization symbolically fragments the school and distorts the relationship between declared objectives and practices; evaluation needs to be recovered as a political-pedagogical process of meaning-making rooted in contexts and democratic values (Biesta, 2009).
- Reprofessionalize teaching practice, restoring pedagogical judgment and deliberation in real contexts to educators. Maroy and Pons (2018) show how results-based regulation redefines roles and weakens professional identities; Afonso (2012) shows the rise of bureaucratic verification over professional practice, replacing judgment with compliance with targets and indicators.
- Revalue the school not as a measuring apparatus but as a space of justice, meaning, and social transformation. This requires recovering the school as a shared political and cultural project committed to equity and educational dignity (Lima, 2024b); as a right, education requires criteria and practices that strengthen justice and dignity.
- Reconfigure public action on the basis of the 3Es matrix, guided by full effectiveness, while rejecting pedagogical leniency and bureaucratic formalism: goals and costs are instruments

subordinated to public educational ends, defined through participation with decision-making power, public and transparent criteria, and public accountability.

It is important, however, that contextual sensitivity not result in excessive fragmentation of quality frameworks. Local justice is realized when articulated with criteria that are both shareable and demanding, ensuring comparable opportunities and conditions for mobility, recognition, and participation in an interdependent world (Aurora Institute, 2020; OECD, 2018). Evaluation should avoid both blind standardization and evaluative relativism, constructing mechanisms that respect diversity without relinquishing rigor (Singer et al., 2018). The critical matrix of the 3Es makes it possible to address this tension: by integrating the ethical rationality of full effectiveness, it reconciles situated justice with shareable standards and makes it possible to conceive evaluation policies that are exhausted neither by context nor by global abstraction.

This perspective is reinforced by international studies that defend rigorous and equitable evaluation approaches anchored in institutional commitments to educational justice. Levy-Feldman (2025) argues that evaluation can be an instrument of social transformation provided that it is culturally responsive and supported by inclusive policies. Recent evidence suggests that formative assessment technologies tend to produce more equitable effects when implemented under structured conditions and with adequate organizational support (Barana & Marchisio-Conte, 2024). Shepard (2021) emphasizes that ambitious assessment practices require time, resources, and organizational conditions, not merely methodological changes. These studies converge on the idea that equity in assessment does not depend on relaxing criteria, but on reorganizing the institutional conditions that ensure learning with dignity for all.

Conclusions

This reflection critically reinterprets efficacy, efficiency, and effectiveness in educational administration and evaluation, showing that they are neither neutral nor merely technical: they express competing instrumental, technical, and ethical rationalities that structure ways of conceiving public action. Far from being simple instruments of measurement, the 3Es translate political and axiological choices that shape governance practices and the purposes of education.

Recentring full effectiveness means embracing justice, the common good, and the transformation of living conditions as educational purposes, subverting a performative logic that absolutizes indicators and empties the school of its pedagogical and relational meanings. As a structuring ethical rationality, full effectiveness makes it possible to break the impasse and recenter evaluation on what is essential: well-being, deep learning, and individual fulfillment, reaffirming its humanistic scope. This inversion does not deny the relevance of efficacy and efficiency; it redefines their place as instruments subordinated to substantive purposes rather than as self-sufficient criteria.

Theoretically, the proposal rests on three pillars: (i) critique of corporate technocratic hegemony; (ii) recentring full effectiveness as a normative category of evaluation; and (iii) construction of a matrix relating rationalities, governance criteria, and meanings of justice. Across different contexts, the matrix makes it possible to identify the predominant rationality, understand its normative effects, and guide reconfigurations.

Within this framework, the analysis developed here supports the claim that the ambiguities surrounding efficacy, efficiency, and effectiveness do not constitute merely a semantic or terminological problem, but rather reflect a structural problem rooted in evaluation mechanisms, the temporalities of the decision-making cycle, and the governance rationalities that recurrently shape public action in education.

Equity in assessment requires stable systemic conditions and an approach that articulates justice, inclusion, and equity; it cannot depend solely on teachers' individual flexibility (Anderson et al., 2025). Integrated and consistent policies are necessary to sustain fair assessment practices (Levy-Feldman, 2025). Assigning teachers exclusive responsibility for structural inequalities shifts attention away from the social and institutional conditions framing their work (Mann-Wood, 2020).

In this article, equity is mobilized as a normative criterion of full effectiveness rather than as an autonomous object of analysis, the exploration of which would require its own theoretical and empirical framework.

At the institutional level, full effectiveness requires an ethical-political architecture of governance: participation with deliberative power, public criteria, and the possibility of informed contestation. The Medusa metaphor synthesizes the challenge: governing through full effectiveness (the cap), disciplining efficacy and efficiency (the tentacles) in order to transform, rather than paralyze, bureaucracy.

It is imperative to build evaluation models that transcend technical verification and integrate qualitative, contextual, and participatory dimensions. This entails democratic accountability anchored in public deliberation (Lessard & Meirieu, 2005). As House (1993) emphasizes, evaluation is intrinsically ethical and produces social and political consequences. The measurement of results must be complemented by a broad understanding of their social, political, and pedagogical meaning.

Responsive evaluation attentive to participants' perspectives (Stake, 2004), school practices centered on justice and collaboration (Apple & Beane, 2007), and critical analyses of the implications of funding systems for equity (Bellei, 2019) jointly show that it is possible to conceive forms of regulation based on ethical co-responsibility rather than merely obedience to external standards.

Within this framework, standardized tests, which are frequently criticized for reinforcing technocratic rationality and potentially producing exclusionary effects (Ball, 2003; Biesta, 2010), should not be rejected absolutely. When oriented by ethical purposes, used in context-sensitive ways, and articulated with formative and inclusive methodologies, they can play relevant roles in diagnosing inequalities and designing intervention strategies. The Finnish experience shows that teacher-produced assessment can be combined with national sampling-based mechanisms, reducing dependence on high-stakes standardized tests (Sahlberg, 2015). OECD comparative indicators (2023a) can be incorporated into this evaluative architecture provided that they are interpreted as sources of information rather than self-sufficient criteria of quality. Consistent with these cautions, Singer et al. (2018), in a National Academy of Education report, recommend prudence in interpreting and using international assessments, emphasizing their limits and the risks of simplification.

Throughout the article, we have argued that full effectiveness requires models of evaluation and management oriented toward well-being, relational justice, cultural recognition, professional autonomy, and pedagogical meaning. Such dimensions, essential to education with dignity, exceed linear metrics and constitute the basis of democratic and emancipatory governance. Rigorous educational demands are incompatible with both exclusionary meritocracies and condescending forms of leniency; they require support, mediation, and ethical-pedagogical rigor. When students do not meet minimum standards, the response is not to lower standards, but to strengthen the commitment to their learning by ensuring the time, methodologies, and relationships that make learning possible with dignity.

It is not enough to determine who achieves the results: we must ask who does not, why, and what must be done so that they can do so without relinquishing rigor.

Educational justice is not achieved by lowering the level of rigor, but by raising it in conjunction with recognition of inequalities. Rigorous teaching that challenges students toward

critical and cognitive growth is a necessary condition for full effectiveness. Confusing equity with assessment leniency perpetuates injustices under the appearance of inclusion.

The combination of quantitative and qualitative, technical and ethical criteria must be understood as a rigorous normative horizon rather than as merely optional complementarity.

In some contexts, statistical gains may result from formal adaptations or indicator-oriented practices of pedagogical leniency rather than from students' substantive educational development; such quantifiable "success" may not correspond to real development.

The dissonance between reported performance and actual learning reveals a central paradox of contemporary evaluation that can be overcome only through criteria centered on full effectiveness and oriented toward well-being, deep learning, and the fulfillment of those involved in education.

From an epistemological standpoint, the proposal highlights the diversity and overlap of the genealogies and uses of the 3Es. In administration and economics, the concepts have been mobilized around objectives and resources; in technical-scientific domains, they have assumed heterogeneous operational uses related to performance, energy conversion, and the evaluation of effects (Agrawal et al., 1996; Sproles, 2002; Zhu et al., 2010). In public policy and health, effectiveness became consolidated as impact under real-world conditions, acquiring greater normative density in critical approaches to social justice (Fraser, 2003; Biesta, 2010). By reframing these concepts, their critical and transformative potential is recovered, countering reductionist appropriations that neutralize and depoliticize them.

For operational clarity in the field of educational administration and evaluation, the following concise definitions are proposed:

- Educational efficacy: the degree to which previously defined pedagogical and institutional objectives are achieved;
- Educational efficiency: the relationship between the resources mobilized and the results obtained, taking proportionality and cost-benefit considerations into account;
- Educational effectiveness: the real effects produced by educational action under concrete conditions;
- Full effectiveness: the relevant, just, pedagogically meaningful, and sustainable value of those effects, assessed in light of the transformation produced in the lives of subjects and communities.

These definitions inevitably point to broader disputes over what is meant by quality, justice, and legitimacy in educational action. Effective education transcends the logic of measurability, asserting itself through its capacity to generate transformation and affirm the dignity of subjects. This is the ethical and political challenge confronting democratic school governance today.

The proposal outlined here has limitations. Its application faces significant institutional and structural constraints, from pressure for rapid results to the rigidity of accountability models and the power asymmetries that shape real possibilities for change. Moreover, the empirical operationalization of concepts such as "meaning," "justice," or "transformation" requires demanding interpretive methodologies that avoid reducing them to simplistic indicators or rhetoric disconnected from practice. Application of the proposal requires ongoing reflective processes supported by rigorous interpretive methodologies and public mechanisms of scrutiny that prevent empty discursive appropriations.

The prospects for future research are broad and interdisciplinary. They include:

- The design of empirical models for evaluating full effectiveness, with ethical-contextual indicators and mixed methods;

- Comparative analysis of education policies oriented toward justice and the common good;
- The study of participatory and emancipatory school practices, articulated with analysis of the cultural, political, and organizational factors that condition the adoption of ethical criteria in educational governance;
- Investigation of resistance to performativity as forms of pedagogical micropolitics, together with continuing epistemological reflection on the limits and paradoxes of evaluation as a social and political practice;
- Studies exploring, for students in more vulnerable circumstances, the emancipatory potential of rigorous educational demands centered on competencies and knowledge, as opposed to pedagogical leniency.

Beyond an interpretive scheme, the 3Es matrix is an analytical-normative instrument for diagnosing technocratic drift and recentering educational action on full effectiveness. By making visible the instrumental, technical, and ethical rationalities in dispute, it makes it possible to reconceptualize evaluation and educational governance on the basis of social justice and concrete improvement in living and learning conditions.

Recentering evaluation on full effectiveness means affirming justice as a normative criterion of education, not as an abstraction, but as a foundation of pedagogical action. The purpose of school is not merely to meet goals; it is to transform lives.

Transformation requires policies that recognize educational rigor and intellectual challenge as drivers of justice. Full effectiveness requires not less evaluation, but better evaluation: well grounded, contextualized, ethical, and rigorous. This position entails an explicit rejection of pedagogical leniency, evaluative relativism, and any abandonment of criteria, affirming that educational rigor, reference frameworks that can be shared, and evaluation instruments are necessary provided that they remain subordinated to ethical, contextual, and educational-justice purposes.

To embrace full effectiveness as a horizon for public action is, ultimately, to affirm educational governance as an ethical-political project oriented toward justice, educational rigor, and the concrete transformation of living and learning conditions.

References

- Afonso, A. J. (2009). *Avaliação educacional: Regulação e emancipação* (4^a ed.). Cortez.
- Afonso, A. J. (2010). Gestão, autonomia e *accountability* na escola pública portuguesa: Breve diacronia. *Revista Brasileira de Política e Administração da Educação*, 26(1), 13–30. <https://seer.ufrgs.br/index.php/rbpae/article/view/19678>
- Afonso, A. J. (2012). Para uma concetualização alternativa de *accountability* em educação. *Educação & Sociedade*, 33(119), 471–484. <https://doi.org/10.1590/S0101-73302012000200008>
- Agrawal, D. C., Leff, H. S., & Menon, V. J. (1996). Efficiency and efficacy of incandescent lamps. *American Journal of Physics*, 64(5), 649–654. <https://doi.org/10.1119/1.18260>
- Alonso, R., Romão, P., & Delgado, P. (2022). Teacher bureaucracy in Portugal: Knowing to act. *Profesorado, Revista de Currículum y Formación del Profesorado*, 26(2), 341–365. <https://doi.org/10.30827/profesorado.v26i2.21268>
- Anderson, H. L. K., Govaerts, M., Abdulla, L., Balmer, D. F., Busari, J. O., & West, D. C. (2025). Clarifying and expanding equity in assessment by considering three orientations: Fairness, inclusion and justice. *Medical Education*, 59(5), 494–502. <https://doi.org/10.1111/medu.15534>

- Apple, M. W. (2004). *Ideology and curriculum* (3rd ed.). Routledge.
- Apple, M. W. (2017). What is present and absent in critical analyses of neoliberalism in education. *Peabody Journal of Education*, 92(1), 29–41. <https://doi.org/10.1080/0161956X.2016.1265344>
- Apple, M. W., & Beane, J. A. (2007). *Democratic schools: Lessons in powerful education* (2nd ed.). Heinemann.
- Araújo, K. H., Leite, R. H., & Andriola, W. B. (2019). Prêmios para escolas e professores com base no desempenho acadêmico discente: a experiência do estado do Ceará (Brasil). *Revista Linhas*, 20(42), 303–325. <https://doi.org/10.5965/1984723820422019303>
- Arretche, M. (1999). Descentralização em um Estado federativo: Políticas sociais no Brasil. *Revista Brasileira de Ciências Sociais*, 14(40), 111–141. <https://doi.org/10.1590/S0102-69091999000200009>
- Aurora Institute. (2020). *How systems of assessment aligned with competency-based education can support equity*. <https://www.aurora-institute.org/wp-content/uploads/how-systems-of-assessment-aligned-with-competency-based-education-can-support-equity-jan-2020-web.pdf>
- Ball, S. J. (2003). The teacher's soul and the terrors of performativity. *Journal of Education Policy*, 18(2), 215–228. <https://doi.org/10.1080/0268093022000043065>
- Ball, S. J. (2012). *Global Education Inc.: New policy networks and the neo-liberal imaginary*. Routledge.
- Ball, S. J. (2016). Neoliberal education? Confronting the slouching beast. *Policy Futures in Education*, 14(8), 1046–1059. <https://doi.org/10.1177/1478210316664259>
- Balıkçı, A. (2024). Bureaucracy in school administration: A grounded theory study. *International Journal of Educational Spectrum*, 6(2), 218–237. <https://doi.org/10.47806/ijesacademic.1458904>
- Barana, A., & Marchisio-Conte, M. (2024). Promoting socioeconomic equity through automatic formative assessment. *Journal on Mathematics Education*, 15(1), 227–252. <https://doi.org/10.22342/jme.v15i1.pp227-252>
- Barber, M., & Mourshed, M. (2007). *How the world's best-performing school systems come out on top*. McKinsey & Company. <https://www.mckinsey.com/industries/education/our-insights/how-the-worlds-best-performing-school-systems-come-out-on-top>
- Bellei, C. (2019). When the funding system is the problem: The Chilean experience of vouchers in education. *Revue internationale d'éducation de Sèvres*, HS(3). <https://doi.org/10.4000/ries.7535>
- Bennett, R. E. (2024). Personalizing assessment: Dream or nightmare? *Educational Measurement: Issues and Practice*, 43(4), 119–125. <https://doi.org/10.1111/emip.12652>
- Bennett, R. E. (2025). Rethinking equity and assessment through opportunity to learn. *Assessment in Education: Principles, Policy & Practice*, 32(1), 5–32. <https://doi.org/10.1080/0969594X.2025.2462549>
- Biesta, G. J. J. (2007). Why “what works” won't work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory*, 57(1), 1–22. <https://doi.org/10.1111/j.1741-5446.2006.00241.x>
- Biesta, G. (2009). Good education in an age of measurement: On the need to reconnect with the question of purpose in education. *Educational Assessment, Evaluation and Accountability*, 21(1), 33–46. <https://doi.org/10.1007/s11092-008-9064-9>
- Biesta, G. (2010). *Good education in an age of measurement: Ethics, politics, democracy*. Routledge.
- Boltanski, L., & Chiapello, È. (2020). O novo espírito do capitalismo (I. C. Benedetti, Trad.). WMF.
- Bouza, A. (2000). Reflexiones acerca del uso de los conceptos de eficiencia, eficacia y efectividad en el sector salud. *Revista Cubana de Salud Pública*, 26(1), 50–56. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-34662000000100007
- Brookhart, S. M. (2024). Educational assessment knowledge and skills for teachers revisited. *Education Sciences*, 14(7), 751. <https://doi.org/10.3390/educsci14070751>

- Calderwood, S. J. (2026). Surveillance digitisation, performativity, and teacher–student relationships in a blended learning setting. *Postdigital Science and Education*, 8, 500–524. <https://doi.org/10.1007/s42438-024-00537-6>
- Coleman, J. S., Campbell, E. Q., Hobson, C. J., McPartland, J., Mood, A. M., Weinfeld, F. D., & York, R. L. (1966). *Equality of educational opportunity*. U.S. Department of Health, Education, and Welfare. <https://eric.ed.gov/?id=ED012275>
- Conley, S., & Glasman, N. S. (2008). Fear, the school organization, and teacher evaluation. *Educational Policy*, 22(1), 63–85. <https://doi.org/10.1177/0895904807311297>
- Cour des Comptes. (2018). *Éducation prioritaire: Rapport d'évaluation d'une politique publique*. <https://www.ccomptes.fr/system/files/2018-10/20181017-rapport-education-prioritaire.pdf>
- Cour des Comptes. (2025). *L'éducation prioritaire, une politique publique à repenser: 2015-2024*. <https://www.ccomptes.fr/sites/default/files/2025-03/20250506-Leducation-prioritaire-une-politique-publique-a-repenser.pdf>
- Dahler-Larsen, P. (2014). Constitutive effects of performance indicators: Getting beyond unintended consequences. *Public Management Review*, 16(7), 969–986. <https://doi.org/10.1080/14719037.2013.770058>
- Davok, D. F. (2007). Qualidade em educação. *Avaliação: Revista da Avaliação da Educação Superior*, 12(3), 505–513. <https://doi.org/10.1590/S1414-40772007000300007>
- Delvaux, E., Vanhoof, J., Tuytens, M., Vekeman, E., Devos, G., & Van Petegem, P. (2013). How may teacher evaluation have an impact on professional development? A multilevel analysis. *Teaching and Teacher Education*, 36, 1–11. <https://doi.org/10.1016/j.tate.2013.06.011>
- Derouet, J.-L. (2005). *L'école dans l'État: De la sociologie du système éducatif à l'analyse des politiques d'éducation*. Presses Universitaires de France.
- Derouet, J.-L. (2017). The modernization of the educational system in France: The New Public Management between the affirmation of the State and the decentralized government. *Revista Brasileira de Política e Administração da Educação*, 33(3), 523–540. <https://seer.ufrgs.br/index.php/rbpae/article/view/79294>
- Donabedian, A. (1990). *The definition of quality and approaches to its assessment*. Health Administration Press.
- Drucker, P. F. (1954). *The practice of management*. Harper & Row.
- Drucker, P. F. (1963). Managing for business effectiveness. *Harvard Business Review*, 41(3), 53–60. <https://hbr.org/1963/05/managing-for-business-effectiveness>
- Edmonds, R. (1979). Effective schools for the urban poor. *Educational Leadership*, 37(1), 15–18, 20–24.
- Espeland, W. N., & Stevens, M. L. (2008). A sociology of quantification. *European Journal of Sociology*, 49(3), 401–436. <https://doi.org/10.1017/S0003975609000150>
- Foucault, M. (2010). *Nascimento da biopolítica*. Edições 70.
- Fraser, N. (2003). *Social justice in the age of identity politics: Redistribution, recognition, and participation*. In N. Fraser & A. Honneth (Eds.), *Redistribution or recognition? A political-philosophical exchange* (pp. 7–109). Verso.
- Freire, P. (1970). *Pedagogia do oprimido*. Paz e Terra.
- Gentili, P. (1996). *Pedagogia da exclusão: Crítica ao neoliberalismo em educação*. Vozes.
- Gergen, K. J., & Gill, S. R. (2021). Beyond the tyranny of testing: Relational evaluation in education. *FORUM*, 63(2), 192–200. <https://doi.org/10.3898/forum.2021.63.2.19>
- Gorard, S. (2014). The link between academies in England, pupil outcomes and local patterns of socio-economic segregation between schools. *Research Papers in Education*, 29(3), 268–284. <https://doi.org/10.1080/02671522.2014.885726>

- Gorur, R. (2016). *Seeing like PISA: A cautionary tale about the performativity of international assessments*. *European Educational Research Journal*, 15(5), 598–616.
<https://doi.org/10.1177/1474904116658299>
- Habermas, J. (2022). *Teoria da ação comunicativa, Vol. 1: Racionalidade da ação e racionalização social* (Trad. L. Repa). Unesp.
- Hanberger, A. (2022). Power in and of evaluation: A framework of analysis. *Evaluation*, 28(3), 265–283.
<https://doi.org/10.1177/13563890221102190>
- Hood, C. (1991). A public management for all seasons? *Public Administration*, 69(1), 3–19.
<https://doi.org/10.1111/j.1467-9299.1991.tb00779.x>
- House, E. R. (1993). *Professional evaluation: Social impact and political consequences*. SAGE.
- Ioannidis, J. P. A. (2016). Why most clinical research is not useful. *PLOS Medicine*, 13(6), e1002049.
<https://doi.org/10.1371/journal.pmed.1002049>
- Jencks, C., Smith, M., Acland, H., Bane, M. J., Cohen, D., Gintis, H., Heyns, B., & Michelson, S. (1972). *Inequality: A reassessment of the effect of family and schooling in America*. Basic Books.
- Koontz, H., Weihrich, H., & Cannice, M. V. (2012). *Management: A global, innovative, and entrepreneurial perspective* (14^a ed.). McGraw-Hill Education.
- Koretz, D. (2017). *The testing charade: Pretending to make schools better*. University of Chicago Press.
- Leitch, R., & Day, C. (2000). Action research and reflective practice: Towards a holistic view. *Educational Action Research*, 8(1), 179–193. <https://doi.org/10.1080/09650790000200108>
- Lessard, C., & Meirieu, P. (2005). *La responsabilité éducative: Pour un développement de la démocratie scolaire*. ESF.
- Levatino, A., Verger, A., Camphuijsen, M., Termes, A., & Parcerisa, L. (2024). School governance through performance-based accountability: A comparative analysis of its side effects across different regulatory regimes. *Review of Research in Education*, 48(1), 248–286.
<https://doi.org/10.3102/0091732X241270672>
- Levy-Feldman, Y. (2025). The role of assessment in improving education and promoting educational equity. *Education Sciences*, 15(2), 224. <https://doi.org/10.3390/educsci15020224>
- Li, J., Xue, E., & Guo, S. (2025). The effects of PISA on global basic education reform: A systematic literature review. *Humanities and Social Sciences Communications*, 12(1), Article 106.
<https://doi.org/10.1057/s41599-025-04403-z>
- Lima, L. C. (2008). *A escola como organização educativa: Uma abordagem sociológica*. Cortez.
- Lima, L. C. (2011). *Administração escolar: Estudos*. Porto Editora.
- Lima, L. C. (2024a). A educação sob dominação digital. *Revista Portuguesa de Educação*, 37(2), e24036.
<https://doi.org/10.21814/rpe.38730>
- Lima, L. C. (2024b). A educação como direito num mundo desigual. *Educação & Sociedade*, 45, e290145. <https://doi.org/10.1590/ES.290145>
- Mann-Wood, M. (2020). Educational inequalities and the teacher perspective. *The Macksey Journal*, 1(1).
<https://mackseyjournal.scholasticahq.com/article/21740>
- Maroy, C., & Pons, X. (2018). *Accountability policies in education: A comparative and multilevel analysis in France and Quebec*. Springer.
- McNeil, L. M. (2000). *Contradictions of school reform: Educational costs of standardized testing*. Routledge.
<https://doi.org/10.4324/9780203900451>
- Mehta, J. (2013a). *The allure of order: High hopes, dashed expectations, and the troubled quest to remake American schooling*. Oxford University Press.
<https://doi.org/10.1093/oso/9780199942060.001.0001>
- Mehta, J. (2013b). From bureaucracy to profession: Remaking the educational sector for the twenty-first century. *Harvard Educational Review*, 83(3), 463–488.
<https://doi.org/10.17763/haer.83.3.kr08797621362v05>

- Meuret, D., & Lambert, M. (2011). La dégradation de l'équité de l'école française dans les années 2000. *Revue française de pédagogie*, 177, 85–100. <https://journals.openedition.org/rfp/3398>
- Meuret, D., Morlaix, S., & Dirani, A. (2014). Normes, projets, résultats: Une enquête sur la régulation des établissements scolaires français du second degré. *Politiques et management public*, 31(3), 301–317. <https://journals.openedition.org/pmp/7162>
- Munby, H. (1989). Reflection-in-action and reflection-on-action. *Education and Culture*, 9(1), 31–42.
- Neilson, C. A. (2021). *Targeted vouchers, competition among schools, and the academic achievement of poor students* (Working paper). RePEc. <https://ideas.repec.org/p/pri/econom/2021-48.html>
- Nichols, S. L., & Berliner, D. C. (2007). *Collateral damage: How high-stakes testing corrupts America's schools*. Harvard Education Press.
- OECD. (2013). *Synergies for better learning: An international perspective on evaluation and assessment*. OECD Publishing. <https://doi.org/10.1787/9789264190658-en>
- OECD. (2018). *Preparing our youth for an inclusive and sustainable world: The OECD PISA global competence framework*. OECD Publishing. <https://www.oecd.org/education/Global-competency-for-an-inclusive-world.pdf>
- OECD. (2019a). *TALIS 2018 Results (Volume I): Teachers and school leaders as lifelong learners*. OECD Publishing. <https://doi.org/10.1787/1d0bc92a-en>
- OECD. (2019b). *Better criteria for better evaluation: Revised evaluation criteria definitions and principles for use*. OECD Publishing. https://www.oecd.org/en/publications/better-criteria-for-better-evaluation_15a9c26b-en.html
- OECD. (2023a). *Education at a glance 2023: OECD indicators*. OECD Publishing. <https://doi.org/10.1787/e13bef63-en>
- OECD. (2023b). *PISA 2022 results (Volume I): The state of learning and equity in education*. OECD Publishing. <https://doi.org/10.1787/53f23881-en>
- OECD. (2025). *Education at a glance 2025: OECD indicators*. OECD Publishing. <https://doi.org/10.1787/1c0d9c79-en>
- Ovídio. (2014). *Metamorfoses* (Trad. P. Farmhouse Alberto). Cotovia.
- Parente, J. M. (2020). A nova gestão pública na educação: Uma análise das escolas “concertadas” na Espanha. *Plurais – Revista Multidisciplinar*, 5(1), 241–260. <https://doi.org/10.29378/plurais.2447-9373.2020.v5.n1.241-260>
- Pareto, V. (1919). *Manuale di economia politica con una introduzione alla scienza sociale*. Società Editrice Libreria. <https://archive.org/details/manualedieconomi00pareuft>
- Parsons, T. (1956). Suggestions for a sociological approach to the theory of organizations. *Administrative Science Quarterly*, 1(1), 63–85. <https://www.jstor.org/stable/2390840>
- Pollitt, C., & Bouckaert, G. (2017). *Public management reform: A comparative analysis into the age of austerity* (4^a ed.). Oxford University Press.
- Pons, X. (2017). Réforme administrative et recherche dans les revues d'interface : L'exemple de l'*accountability* en éducation en France. *Revue française de pédagogie*, 201, 41–51. <https://doi.org/10.4000/rfp.7206>
- Power, M. (1997). *The audit society: Rituals of verification*. Oxford University Press.
- Ravitch, D. (2010). *The death and life of the great American school system: How testing and choice are undermining education*. Basic Books.
- Reynolds, D., Teddlie, C., Creemers, B. P. M., & Hopkins, D. (1996). *School effectiveness: Research, policy and practice*. Cassell.
- Rutter, M., Maughan, B., Mortimore, P., & Ouston, J. (1979). *Fifteen thousand hours: Secondary schools and their effects on children*. Open Books.
- Sahlberg, P. (2015). *Finnish lessons 2.0: What can the world learn from educational change in Finland?* Teachers College Press.

- Samuelson, P. A., & Nordhaus, W. D. (2011). *Economia* (19ª ed.). McGraw-Hill.
- Sano, H., & Montenegro Filho, M. J. F. (2013). As técnicas de avaliação da eficiência, eficácia e efetividade na gestão pública e sua relevância para o desenvolvimento social e das ações públicas. *Desenvolvimento em Questão*, 11(22), 35–61.
<https://www.redalyc.org/articulo.oa?id=75225787003>
- Saura, G. (2015). Neoliberalismo como discurso: La evaluación en educación entre tecnologías políticas neoliberales y la nueva filantropía. *Educação, Sociedade & Culturas*, 45, 103–125.
<https://ojs.up.pt/index.php/esc-ciie/article/view/185>
- Saura, G., & Muñoz, J. L. (2016). Prácticas neoliberales de endo-privatización y nuevas formas de resistencia colectiva en el contexto de la política educativa española. *Revista Española de Pedagogía*, 74(263), 369–386. <https://revistas.uam.es/rep/article/view/12251>
- Schneider, M., Elacqua, G., & Buckley, J. (2006). School choice in Chile: Is it class or the classroom? *Journal of Policy Analysis and Management*, 25(3), 577–601. <https://doi.org/10.1002/pam.20192>
- Scriven, M. (1991). *Evaluation thesaurus* (4ª ed.). SAGE.
- Sen, A. (1999). *Development as freedom*. Oxford University Press.
- Serra, L., Alves, J. M., & Soares, D. (2023). A avaliação externa das escolas: Entre a conformidade e a inovação. *Revista Portuguesa de Investigação Educacional*, (25), 1–25.
<https://doi.org/10.34632/investigacaoeducacional.2023.15913>
- Shepard, L. A. (2021). Ambitious teaching and equitable assessment: A vision for prioritizing learning, not testing. *American Educator*, 45(3), 28–37, 48.
<https://www.aft.org/ae/fall2021/shepard>
- Simon, H. A. (1947). *Administrative behavior: A study of decision-making processes in administrative organizations*. Macmillan.
- Singer, J. D., Braun, H. I., & Chudowsky, N. (Eds.). (2018). *International education assessments: Cautions, conundrums, and common sense*. National Academy of Education. <https://naeducation.org/wp-content/uploads/2018/08/International-Education-Assessments-NAEd-report.pdf>
- Sproles, N. (2002). Formulating measures of effectiveness. *Systems Engineering*, 5(4), 253–263.
<https://doi.org/10.1002/sys.10028>
- Stake, R. E. (2004). Standards-based and responsive evaluation. In I. F. Shaw, J. C. Greene, & M. M. Mark (Eds.), *The SAGE handbook of evaluation* (pp. 341–361). SAGE.
- Taylor, F. W. (1911). *The principles of scientific management*. Harper & Brothers.
- Valenzuela, J. P., Bellei, C., & de los Ríos, D. (2014). Socioeconomic school segregation in a market-oriented educational system: The case of Chile. *Journal of Education Policy*, 29(2), 217–241.
<https://doi.org/10.1080/02680939.2013.806995>
- Verger, A., & Curran, M. (2014). New public management as a global education policy: Its adoption and re-contextualization in a Southern European setting. *Critical Studies in Education*, 55(3), 253–271. <https://doi.org/10.1080/17508487.2014.913531>
- Verger, A., & Normand, R. (2015). Nueva gestión pública y educación: Elementos teóricos y conceptuales para el estudio de un modelo de reforma educativa global. *Educação & Sociedade*, 36(132), 599–622. <https://doi.org/10.1590/ES0101-73302015152799>
- Viñao, A. (2001). El concepto neoliberal de calidad de la enseñanza: Su aplicación en España (1996–1999). In J. Gimeno Sacristán & A. Viñao Frago (Eds.), *Calidad de la educación: Nuevos discursos, viejos problemas* (pp. 91–120). Morata.
<https://www.ugr.es/~fjriros/pce/media/45CalidadEducativaNeoliberalismoVinao.pdf>
- Weber, M. (2022). *Economia e sociedade*. Edições 70.
- World Bank. (2018). *World development report 2018: Learning to realize education's promise*.
<https://www.worldbank.org/en/publication/wdr2018>

- Yoon, E.-S. (2024). From GERM (Global Educational Reform Movement) to NERM (Neoliberal Educational Reform Madness). *Critical Education*, 15(2), 13–28.
<https://doi.org/10.14288/ce.v15i2.186904>
- Zhu, X.-G., Long, S. P., & Ort, D. R. (2010). Improving photosynthetic efficiency for greater yield. *Annual Review of Plant Biology*, 61, 235–261. <https://doi.org/10.1146/annurev-arplant-042809-112206>

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