EDUCAÇÃO REGENERATIVA E GOVERNANÇA EXPERIMENTAL: Universidades como infraestruturas institucionais para o fortalecimento de capacidades públicas

REGENERATIVE EDUCATION AND EXPERIMENTAL GOVERNANCE: Universities as Institutional Infrastructures for Public Capacity Building

EDUCACIÓN REGENERATIVA Y GOBERNANZA EXPERIMENTAL: Las universidades como infraestructuras institucionales para el fortalecimiento de capacidades públicas

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RESUMO

Este artigo examina como a regeneração de capacidades públicas pode ser promovida quando a educação é concebida como uma infraestrutura institucional e de governança. Com base nas teorias da governança experimental, do direito em ação e da construção de capacidades institucionais, o estudo sustenta que as universidades podem operar como dispositivos regenerativos ao integrar pedagogias orientadas a problemas, teoria da mudança e intervenções territorialmente situadas. A partir de uma abordagem de pesquisa-ação interna (insider action research), conduzida no contexto do FGV Cidades, o artigo analisa um experimento educacional aplicado no campo da ação público-privada sustentável, voltado ao enfrentamento de desafios urbano-ambientais complexos em nível subnacional. As evidências empíricas derivam da análise de documentos institucionais, da observação participante e de artefatos reflexivos produzidos ao longo do processo formativo, com destaque para os modelos lógicos desenvolvidos pelas equipes participantes. Os resultados demonstram como a educação pode funcionar como uma tecnologia social e institucional capaz de ativar a

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colaboração interinstitucional, reorganizar arranjos jurídico-econômico-operacionais e fortalecer capacidades públicas em ambientes de políticas públicas fragmentados. O artigo conclui propondo um marco analítico replicável para práticas educacionais regenerativas orientadas à formulação e implementação de políticas públicas baseadas em evidências e ancoradas nos territórios.

Palavras-chave: Educação regenerativa; Governança experimental; Capacidades públicas; Pesquisa-ação; Políticas públicas baseadas em evidências

ABSTRACT

This article examines how public capacity regeneration can be promoted when education is conceived as an institutional and governance infrastructure. Drawing on theories of experimental governance, law in action, and institutional capacity building, the study argues that universities can operate as regenerative devices by integrating problem-oriented pedagogy, theory of change, and territorially situated interventions. Using insider action research conducted within the context of FGV Cidades, the article analyzes an applied educational experiment in the field of sustainable public-private action, focused on addressing complex urban-environmental challenges at the subnational level. Empirical evidence derives from institutional documents, participant observation, and reflexive artifacts generated throughout the training process, particularly the logical models developed by participating teams. The findings demonstrate how education can function as a social and institutional technology capable of activating inter-institutional collaboration, reorganizing legal-economic-operational arrangements, and strengthening public capacities in fragmented policy environments. The article concludes by proposing a replicable analytical framework for regenerative educational practices oriented toward evidence-based and territorially grounded public policy solutions.

Keywords: Regenerative education; Experimental governance; Public capacity Building; Action research; Evidence-based public policy.

RESUMEN

Este artículo examina cómo puede promoverse la regeneración de capacidades públicas cuando la educación es concebida como una infraestructura institucional y de

gobernanza. A partir de las teorías de la gobernanza experimental, del derecho en acción y de la construcción de capacidades institucionales, el estudio sostiene que las universidades pueden operar como dispositivos regenerativos al integrar pedagogías orientadas a problemas, teoría del cambio e intervenciones territorialmente situadas. Mediante una estrategia de investigación-acción interna (insider action research), desarrollada en el contexto de FGV Cidades, el artículo analiza un experimento educativo aplicado en el ámbito de la acción público-privada sostenible, orientado a enfrentar desafíos urbano-ambientales complejos a nivel subnacional. La evidencia empírica se basa en el análisis de documentos institucionales, la observación participante y los artefactos reflexivos generados a lo largo del proceso formativo, con especial énfasis en los modelos lógicos elaborados por los equipos participantes. Los resultados muestran cómo la educación puede funcionar como una tecnología social e institucional capaz de activar la colaboración interinstitucional, reorganizar arreglos jurídico-económico-operativos y fortalecer las capacidades públicas en entornos de políticas públicas fragmentados. El artículo concluye proponiendo un marco analítico replicable para prácticas educativas regenerativas orientadas a soluciones de política pública basadas en evidencia y territorialmente situadas.

Palabras clave: Educación regenerativa; Gobernanza experimental; Capacidades públicas; Investigación-acción; Políticas públicas basadas en evidencia

1. INTRODUCTION

The increasing complexity of contemporary public challenges — such as climate emergencies, the erosion of state capacities, and the fragmentation of public policies —requires universities to rethink their roles. The entrepreneurial university model (Clark, 1998; Etzkowitz & Leydesdorff, 2000) proposed expanding institutional roles beyond teaching and research, incorporating innovation and socioeconomic development as central missions. Today, this model faces a new set of expectations: regeneration.

The regenerative entrepreneurial university seeks to align internal transformation with external impact, functioning as a critical infrastructure for reconstructing social, environmental, and institutional ecosystems (Carayannis & Campbell, 2012; König, 2013). This approach presupposes not merely generating knowledge and talent but actively producing concrete results in territories marked by inequality and vulnerability.

This article argues that the MBA in Sustainable Public-Private Partnerships (PPPs) and Concessions represents a concrete manifestation of this logic. The program was designed as a living laboratory for applied education, structuring sustainable public projects guided by evidence, aimed at overcoming institutional, legal, and operational bottlenecks in eight critical areas of the subnational environmental and climate agenda: (i) renewable energy generation; (ii) protection of forests and parks; (iii) reforestation and recovery of degraded areas; (iv) urban requalification and climate adaptation; (v) sanitation; (vi) solid waste management; (vii) urban mobility and charging infrastructure; and (viii) innovative sustainability solutions. These projects can adopt various formats and scales, including instruments such as concessions, PPPs, or multisectoral cooperative arrangements.

In each training cycle, participants develop real projects aimed at overcoming bottlenecks in these areas, generating measurable impacts aligned with the Sustainable Development Goals (SDGs) in their respective territories. By integrating teaching, research, extension, and innovation around concrete public challenges, the program positions itself as a social technology for institutional and territorial regeneration.

This article starts from the hypothesis that the regenerative entrepreneurial university can function as a critical infrastructure for territorial transformation when it integrates teaching, research, and extension activities around evidence-based, real-world problems. In this model, educational programs do not merely transmit content but act as social technologies that activate institutional capacities, bringing together diverse actors around projects with public impact potential. The goal is not merely talent development but the inter-institutional organization within ecosystems where these talents operate, promoting solutions that are legally robust, socially legitimate, and technically viable for critical areas such as mobility, sanitation, and energy transition. This perspective repositions the university as a regenerative actor within territorial ecosystems, producing public value through orchestrating policies, knowledge, and practices.

2. METHODOLOGICAL PATHWAY

To ground the analysis, a research-action approach was adopted (Eden & Huxham, 1996; Coghlan, 2019), specifically insider action research, conducted within the institutional context of FGV Cidades, a research center focused on innovation in public policies to expand access to opportunities. This strategy enables articulating knowledge production with institutional transformation through iterative cycles of diagnosis, intervention, and reassessment.

The research is anchored in a pragmatist and constructivist-relational epistemology (Dewey, 1938; Schön, 1983), recognizing the university as a social construct whose identity is continually redefined in practice. Empirical evidence derives from the analysis of institutional documents, participant observation, and reflexive artifacts generated throughout the training process, notably the developed logical model. This model emphasizes training as a situated process of activating public action, based on the DICA methodology—(i) Discover how to accurately diagnose public problems; (ii) Innovate institutionally in solution design; (iii) Construct the legal, economic, and operational structure of the project; and (iv) Evaluate the viability, risks, and implementation of public policy.

Understanding education as institutional practice and an epistemological arena implies that training in public policies is neither neutral nor merely technical. It shapes ways of thinking, acting, and organizing collective action, functioning as an institutional technology that produces subjectivities, rationalities, and practices. This performative dimension of education has been emphasized by approaches that link education, institutional transformation, and state capacities (Farah, 2017; Pires & Gomide, 2021).

This article views training as situated practice, operating within institutional contexts marked by asymmetries, tensions, and disputes. Rather than adopting a prescriptive approach, the analyzed program functions as a living laboratory, where content, methods, and tools are tested through action, guided by the complexity of real public problems. This aligns with the tradition of institutional pragmatism, which posits learning through experience, experimentation, and collective reflexivity (Dewey, 1927; Ansell & Gash, 2008).

This perspective also critiques the linear, transmissive pedagogy common in legal and administrative education. Rather than teaching "correct" solutions to apply to reality, the course begins with reality—with all its noise, conflicts, and imperfections—to collectively build the knowledge necessary for transformation. This epistemological inversion positions education as a critical practice capable of reorganizing meanings, activating capacities, and regenerating institutions through the educational process itself.

The pragmatist action research approach adopted allowed for the exploration and testing—through iterative cycles of diagnosis, intervention, and evaluation—of the practical effectiveness of the mobilized theories—especially the theory of change and law in action. As a result, the study produced a situated, dynamic, and critical understanding of institutional regeneration, providing empirical evidence of how

educational processes can reorganize public capacities and generate tangible territorial impact in real-time.

3. THEORETICAL FRAMEWORK

Universities occupy a strategic position in contemporary debates on innovation, sustainability, and institutional transformation. Recent literature converges on three main streams: (i) the entrepreneurial university and its role in regional development; (ii) the expansion of this role through socio-environmental regeneration; and (iii) the practical institutional implementation of these transformations, emphasizing action research and action-oriented legal pedagogies. This theoretical framework integrates these dimensions, focusing on practical training in real-world public decision environments, exemplified by the MBA in Sustainable PPPs and Concessions at FGV.

3.1 The Entrepreneurial University and Its Institutional Role

The entrepreneurial university concept, proposed by Clark (1998), introduces an organizational paradigm shift where the university moves beyond education and research to become a strategic entity capable of mobilizing resources, setting institutional agendas, and responding proactively to societal and economic demands. Clark identifies five institutional vectors: strengthened academic core, proactive managerial culture, diversified funding base, interdisciplinary orientation, and flexible organizational structure.

This model is further developed through the Triple Helix framework by Etzkowitz and Leydesdorff (2000), describing innovation as emerging from interactions between universities, government, and industry. Subsequent developments—Quadruple and Quintuple Helix models—expand this to include civil society and the environment, integrating broader social and institutional challenges into innovation (Carayannis & Campbell, 2012).

However, critiques highlight risks of universities becoming overly market-oriented, potentially undermining their critical, pluralistic, and educational roles. Martins (2023) and Vaz (2019) warn against instrumentalization and erosion of ethical-political commitments, particularly in contexts of structural inequality. Additionally, innovation is often narrowly conceived, neglecting institutional and organizational dimensions crucial for policy implementation and territorial regeneration (Godin, 2006; Mazzucato, 2018).

Thus, entrepreneurial universities should also be viewed as regenerative infrastructures capable of reconfiguring internal practices and institutional

arrangements. The MBA program shifts university roles from knowledge providers to orchestrators of inter-institutional arrangements, aiming to develop professionals who operate effectively within hybrid institutional ecosystems.

3.2 The Regenerative Approach: University as Systemic Device

The regenerative approach emerges as a critical alternative to conventional sustainability, advocating systemic institutional reconfiguration in response to ecological, social, and democratic crises. It proposes active regeneration of life systems through the recomposition of relationships and infrastructures sustaining the common good.

Under this perspective, universities transform from mere knowledge providers into systemic institutional actors orchestrating territorial innovation ecosystems. This requires simultaneous action on epistemological, institutional, and territorial planes, embedding educational and scientific processes in territorial realities and collaborative problem-solving (Trencher et al., 2023; König, 2013).

Innovation districts exemplify arenas where universities enact this expanded role, collaborating with local governments, businesses, and communities on real-world transformative projects. Here, the university becomes a territorial learning infrastructure producing collective solutions, activating institutional capabilities, and fostering intersectoral governance through PPP contracts and collaborative agreements.

The MBA at FGV exemplifies this regenerative logic, engaging students in real problem-solving projects within critical environmental and climate areas. These initiatives serve as institutional prototypes, turning contracts into tools that formalize intersectoral articulation, thus enhancing public capacities and policy implementation.

3.3 Action Research and Law in Action: Contracts as Institutional Technologies

While regeneration broadens university roles, institutional practices ground this ambition. Action research (Lewin, 1946; Argyris & Schön, 1996), particularly insider action research (Coghlan, 2019), combines knowledge production and practical transformation, integrating learning with organizational and normative structures. The MBA reflects this approach, positioning students as both learners and institutional change agents.

Similarly, the law in action tradition, moving beyond normative views, understands law as a situated social practice structuring interactions and institutional behavior

(Llewellyn, 1930; Sabel & Simon, 2004). Within the MBA, PPP contracts become dynamic legal-economic-operational artifacts embodying governance arrangements, regulatory experimentation, and public-sector capacity-building.

This practical dimension transforms the course into a laboratory for applied legal production, where theoretical knowledge directly intersects with real-world territorial challenges. Legal actions become core components of innovation, integrated into solution designs rather than mere ex-post regulatory mechanisms.

3.4 Public Capacities and Institutional Innovation Ecosystems

Public capacity building is essential for implementing effective public policies under complex and uncertain conditions (Andrews, Pritchett & Woolcock, 2017). Rather than individual competencies, capacities are viewed as emerging properties of institutional ecosystems, including robust legal frameworks, institutional learning mechanisms, and intersectoral governance.

This perspective aligns with experimentalist state capacities (Sabel & Zeitlin, 2012) and mission-oriented innovation (Mazzucato & Kattel, 2020), emphasizing adaptive legal-institutional infrastructures and inter-institutional coordination.

The MBA integrates these insights by structuring its curriculum around real-world projects demanding contextual diagnostics, evidence-based technological and operational choices, innovative contractual architectures, and intersectoral dialogue. This fosters a situated, problem-oriented approach to public talent development, enhancing local institutional density and innovation.

3.5 Integrative Synthesis: Regenerative University as Institutional Innovation Infrastructure

Collectively, these theoretical streams reposition universities as active institutional infrastructures fostering territorial transformation. Starting from the entrepreneurial university framework and evolving through critical regenerative perspectives, this integrated model emphasizes participatory methodologies, experimental governance, and applied institutional innovation.

Thus, universities become systemic actors fostering real capacities, transformative pedagogies, and innovative institutional practices. The MBA embodies this paradigm, functioning as a prototype of applied regeneration that directly impacts territories and public policy domains, demonstrating a concrete pathway toward institutionally-driven territorial innovation.

4. DISCUSSION

The implementation of the MBA in Sustainable PPPs and Concessions provided an empirical testing ground for an innovative pedagogical model, making a direct contribution to contemporary debates on institutional regeneration and experimental governance. By operationalizing concepts such as boundary objects, institutional intelligence, and theory of change, the action research revealed, in a situated and critical manner, both the challenges and the potential of problem-driven public sector training.

These empirical findings advance and complement previous theoretical frameworks—particularly those on regenerative universities, experimental governance, and law in action—by providing concrete evidence of how pedagogical processes anchored in the theory of change can reorganize institutional capacities and trigger effective territorial transformations. While much of the existing literature addresses these concepts primarily in theoretical terms, our findings demonstrate how collaborative networks can be activated and how contracts can become legal-economic-operational technologies for public sector regeneration.

4.1 Problem-Based Pedagogy and the Theory of Change as Formative Infrastructure

The MBA's starting point was the design of a pedagogy grounded in real and critical problems, directly linked to eight priority areas of Brazil's climate agenda: renewable energy, forest conservation, reforestation and land restoration, urban revitalization, sanitation, solid waste management, urban mobility, and innovative climate adaptation and mitigation projects. These challenges were not treated as generic case studies but as real, situated problems involving identifiable actors, specific regulatory structures, and tangible impacts on vulnerable territories.

This methodological choice—starting from concrete problems—gave the program practical depth and positioned it within the field of transformative innovation, which views public problem-solving as a driver of institutional and social reorganization (Weber & Rohracher, 2012; Schot & Steinmueller, 2018). By reversing traditional teaching logic, the course promoted a pedagogy of complexity, demanding that participants navigate normative uncertainties, fragmented institutional settings, and intersectoral operational challenges.

To operationalize this approach, the program adopted a theory of change as an epistemic, organizational, and pedagogical backbone. Far from serving merely as a didactic or planning tool, the theory of change articulated objectives, methods, and

expected impacts across multiple levels—individual, institutional, interorganizational, and territorial. Anchored in program theory (Chen, 2005; Weiss, 1998) and structured as an explicit causal chain (Funnell & Rogers, 2011), the theory of change organized both the internal logic of the course and the design of the projects developed by student teams.

Each team was encouraged to build its own logic model, starting with a situated diagnosis and translating hypotheses, inputs, activities, and outputs into expected outcomes and desired impacts. Legal and economic concepts were mobilized as inter-institutional translation technologies, enabling alignment between different rationalities—normative, technical, financial, and social—around real-world problems. The theory of change thus operated as a boundary object (Star & Griesemer, 1989), providing enough structure for coordination while allowing for flexible interpretation across actor profiles.

This design fostered a pedagogy of listening, negotiation, and co-production. Rather than imposing predefined solutions, the program encouraged collective diagnosis and the co-creation of pathways and instruments for action. In this process, the theory of change functioned as an institutional translator, mediating asymmetries and enabling the development of a shared language for evidence-based public action.

The program's structure—combining thematic classes, mentoring sessions, practical workshops, and evaluative synthesis moments—enhanced critical and applied engagement with real public problems, transforming the educational experience into a platform for institutional reorganization. By organizing the learning journey around a causal chain, the program internalized the theory of change as both a way of learning and a way of acting. This dual role connects to the notion of institutional intelligence (Heclo, 1974), positioning the course as a living public policy experiment subject to continuous monitoring and recursive learning.

Thus, problem-based pedagogy and the theory of change did not simply complement each other—they integrated into a single regenerative formative infrastructure capable of aligning content, method, and purpose in public sector talent development. By articulating teaching, research, and territorial intervention, the course repositioned the university as a relevant actor in the regeneration of institutional capacities and the co-production of public-private solutions for critical urban challenges. Rather than operating through normative abstractions, this formative infrastructure sought to produce real transformation—in students, institutions, and territories.

4.2 Law in Action and Contracts as Legal-Economic-Operational Technologies

One of the program's core contributions lies in activating law as a living practice (law in action). By engaging students in the development of contracts aimed at addressing public problems, the course challenged participants to legally translate political and operational objectives. This practice demanded not only normative knowledge but also skills in mediation, listening, and institutional composition.

The contracts developed by the teams functioned as legal-economic-operational technologies—normative expressions of their theory of change, aligned with both existing and desired institutional capacities. The contract ceased to be merely a legal instrument and became a governance device, structuring flows, responsibilities, risks, and expected results.

In this context, law was mobilized not as a constraint but as an enabler—a tool for collective action, anchored in evidence, outcome-oriented, and sensitive to territorial contexts. This approach aligns with the experimental law and regulatory pragmatism literature, which highlights the performative role of norms and the centrality of continuous institutional learning (Llewellyn, 1930; Sabel & Simon, 2004).

Through this framing, the legal practice within the course moved beyond formalism, positioning contracts as learning devices and drivers of institutional change.

4.3 Public Capabilities and Legal-Institutional Innovation Ecosystems

The MBA extended its influence beyond individual training, operating directly on the legal-institutional ecosystems in which these professionals work. By fostering inter-institutional coordination, reconfiguring decision-making flows, and provoking regulatory revisions, the course acted as a catalyst for public sector innovation.

This aligns with what Pires and Gomide (2021) define as the development of dynamic capabilities—not merely individual skill acquisition but institutional reorganization aimed at learning, adaptation, and innovation. The concept of institutional ecosystems helps explain how learning operates across networks of actors, rules, practices, and knowledge. In such ecosystems, change emerges from the recombination of expectations, languages, and incentives—not from top-down imposition.

The course functioned as a light infrastructure for experimental governance, activating cross-sectoral connections, mediating organizational conflicts, and anchoring solutions within existing or emerging regulatory arrangements. This reinforces the argument that public sector training programs can—and should—be understood as strategic devices for institutional reorganization. Rather than producing mere "knowledge

containers," the aim is to activate distributed institutional intelligence capable of generating viable, legitimate, and situated solutions.

The MBA thus positions itself not as a repository of content but as an arena for rethinking how public action is conceptualized, regulated, and implemented.

4.4 The Program as a Social and Organizational Technology for Inter-Institutional Translation

By working on real public problems, the MBA in Sustainable PPPs and Concessions operated as a social and organizational technology for inter-institutional translation. The program was designed to articulate diverse rationalities—legal, economic, technical, and political—around common objectives for institutional transformation.

The literature on collaboration in interorganizational settings highlights the role of boundary objects as tools for practical coordination among diverse actors (Star & Griesemer, 1989). These objects allow coordination despite differing perspectives, vocabularies, and interests.

In the program's context, both the logic model and the theory of change served as boundary objects: sufficiently structured to guide action but flexible enough for appropriation by diverse professional profiles. Their application in real projects helped align expectations, facilitate cross-sectoral communication, and build a shared language around the idea of sustainable PPPs.

This collaborative use translated complexity into actionable strategies, enabling the legal-economic-operational instruments to serve as public innovation tools. Moreover, the projects generated effects beyond the training space, mobilizing subnational interorganizational networks and triggering partnerships between municipalities, concessionaires, universities, public companies, civil society organizations, and regulatory agencies.

In several cases, the course journey itself acted as an institutional trigger, prompting regulatory changes, organizational restructuring, and the opening of new intersectoral cooperation channels.

4.5 The Theory of Change as Epistemological, Organizational, and Pedagogical Architecture

The program was sustained by an explicitly formulated theory of change, functioning simultaneously as epistemic, organizational, and pedagogical architecture. Far from

being just a planning technique or a didactic aid, the theory of change served as the backbone of the formative model, structuring the intervention logic, operationalization, and intended institutional effects—both inside and outside the classroom.

Two analytical pillars underpinned this conception. The first was program theory (Chen, 2005; Weiss, 1998), which makes explicit the causal mechanisms by which an intervention aims to produce its effects, grounded in normative and descriptive assumptions about the functioning of the context. In this case, the logic was structured as follows: if public teams with transformation potential are selected, receive applied training based on real problems, engage in inter-institutional logic alignment, and produce evidence-based project proposals, then institutional capacities will be strengthened, generating relevant public impact. This causal chain aimed at the qualified adoption of innovative urban-environmental PPPs as legitimate public policy instruments.

The second pillar was the theory of change, understood as an explicit and shareable representation of the expected causal chain, connecting inputs, activities, outputs, outcomes, and impacts (Funnell & Rogers, 2011; Taplin & Clark, 2012). This theory guided the program's operational logic, conceived as an intentional intervention in public sector training.

Built around real public problems, aligned with national policies like the 808/2023 Program, and operationalized through active methodologies and continuous inter-institutional mediation, the theory of change allowed for monitoring and evaluating effects at multiple scales: individual (participant learning), institutional (capacity building in public agencies), interorganizational (project governance structures), and systemic (territorial and environmental impacts).

Inputs included a diverse teaching team with practical experience in PPP structuring, regulation, and evaluation, an academically coordinated public-private innovation orientation, and a project-based pedagogical infrastructure. Actions involved orchestrated thematic modules, targeted mentoring, practical workshops, and evaluative synthesis moments, all focused on applying knowledge directly to real problems.

Outputs such as pre-bidding documents, risk matrices, and governance plans demonstrated the articulation between knowledge, method, and action. Immediate results related to increased institutional capacity at the subnational level, while the broader impact aimed at strengthening evidence-based urban governance and co-production of sustainable legal-economic solutions.

The theory of change thus served a dual role. As a formative technology, it structured student learning, enabling each team to view their project as a causal system of hypotheses, evidence, and regulatory instruments. As an institutional technology, it organized the program's internal functioning, treating the course itself as a public policy experiment subject to continuous monitoring and evaluation.

This dual role reflects the concept of institutional intelligence (Heclo, 1974)—the capacity to learn from action, generate organizational reflexivity, and reconfigure means of intervention. By adopting this structure, the program did not merely teach the theory of change—it embodied it as a way of acting, enabling students, tutors, and managers to engage in a co-production process grounded in real public problems.

This positioning situates the program within contemporary debates on universities as catalysts for systemic transitions (Trencher et al., 2023), reinforcing its identity as a regenerative pedagogical infrastructure. The power of this theory did not lie in abstraction but in its capacity to drive real transformations—in projects, institutions, and territories.

4.6 Frictions, Learning, and Adjustments in the Implementation Process

Program implementation was neither linear nor free from tension. On the contrary, the training processes encountered significant frictions that tested the theory of change as a living epistemological structure—not as an ideal plan, but as a learning device capable of accommodating deviations, uncertainties, and iterative redesigns.

Key tensions included the limited availability of public agents already burdened with multiple roles and deadlines, divergent interests and technical maturity levels among team members, and resistance from some local institutions toward adopting more innovative partnership models, such as sustainability-focused PPPs.

These challenges were not peripheral—they directly impacted the training journey, requiring module redesigns, adjustments to workload distribution, workshop reformulations, and strengthened active listening and pedagogical mediation strategies.

The FGV Cidades team chose to treat these issues not as program failures but as raw material for ongoing refinement. The theory of change, rather than becoming rigid, operated as an open epistemological architecture guiding real-time adaptation to the concrete realities of public teams—enabled through iterative feedback cycles between planning and execution.

This process fostered organizational learning at multiple levels. Internally, the FGV Cidades team improved its mentoring protocols, module deliverable designs, and project monitoring systems. Externally, institutional partners began to perceive the course not just as a training space but as a legitimate public policy tool, capable of reorganizing institutional flows and articulating new collaborative practices.

Institutional reflexivity—the capacity to learn from one's own limits and intentionally reorganize practices—emerged as one of the most productive pillars of implementation. By confronting its friction points, the program evolved into a space for institutional regeneration, reconfiguring not only expected outputs but also the relationship between knowledge, action, and organization within the field of public sector training.

4.7 Implications for the Field of Public Policy Training

The experience analyzed here offers relevant empirical and conceptual evidence for contemporary debates on how to train public talents in contexts of growing complexity, urgency, and institutional instability. Far from replicating traditional, content-transmission-based teaching models, the course functioned as a living laboratory of institutional innovation, where training operated as the situated activation of public capacities in real territories facing concrete problems.

This experience suggests that public policy training programs can—and perhaps should—function as intervention devices, where teaching occurs simultaneously with structuring, experimenting with, and adjusting public action. By adopting a theory of change as an epistemic, organizational, and pedagogical foundation, the course demonstrated the possibility of aligning content, method, and purpose—connecting diverse knowledge domains to the production of legally sound, technically feasible, and socially relevant solutions.

This training model, anchored in real problems and sustained by intersectoral articulations among universities, governments, and society, has high replication potential—provided some structural conditions are met: (i) the existence of educational institutions with epistemic and organizational coordination capacity; (ii) a willingness to operate mediation-based pedagogies rather than top-down imposition; and (iii) the establishment of lasting territorial links that enable situated learning and recursive institutional transformation.

In this sense, the course repositions universities as public governance infrastructures capable of mediating between legal, economic, political, and scientific rationalities in

producing more responsive and innovative public policies. At the same time, it shifts the training focus from individual competencies to institutional collectivity: more than forming professionals, the program sought to regenerate capacities, practices, and action networks within and across public organizations.

The central proposition that emerges is that institutional regeneration is not an endpoint but a continuous process of situated learning. Such learning depends on intensive, interactive, real-problem-oriented experiences anchored in methodologies of listening, negotiation, and co-production. Public policy training, in this view, is no longer merely a transmitter of techniques but becomes a strategic field of contestation for the future of public institutions.

4. FINAL CONSIDERATIONS

This article analyzed the MBA in Sustainable PPPs and Concessions as an institutional experiment aimed at regenerating public capacities in complex urban-environmental contexts. The results demonstrate that training programs can indeed operate as experimental institutional arrangements, promoting situated learning, activating collaborative networks, and reorganizing public capacities around real-world problems. By articulating theory of change, active methodologies, and intersectoral mediation, the program demonstrated its potential to function as a formative infrastructure capable not only of transmitting technical knowledge but also of inducing concrete institutional transformations.

The adoption of a critical action research methodology allowed for real-time monitoring and reflective documentation of the course trajectory, reinforcing its dimension as a living laboratory of governance and institutional learning. In this context, frictions, resistance, and institutional asymmetries were not seen as limitations or model failures but as critical drivers for the continuous reorganization of pedagogical practices and intervention tools. This perspective strengthened the program's adaptive capacity and enhanced its effectiveness as a space for situated institutional innovation.

Theoretically, the study's central contribution lies in articulating three interrelated conceptual pillars: program theory as a descriptive and normative structure for educational and institutional interventions; theory of change as an integrative architecture connecting content, method, and formative purpose; and the concept of institutional intelligence, understood as the organizational capacity to learn continuously from practice and adjust interventions as new challenges emerge. Grounded in these frameworks, the study demonstrated that the MBA not only

enhanced individual competencies of public agents but also repositioned the university as a legitimate and active agent in the co-production of viable institutional solutions.

The program acted as an institutional technology for intersectoral translation, mediating different rationalities—legal, technical, economic, and political—through clearly identifiable boundary objects: the logic model, the theory of change, and the intermediate outputs generated throughout the projects. These instruments facilitated strategic alignment among different institutional actors, enabling the construction of a shared language oriented toward evidence-based and collaborative public action.

This article makes a direct contribution to the literature on regenerative training and experimental governance by proposing an unprecedented integration between theory of change, law in action, and institutional pedagogies. In doing so, it advances both conceptually and empirically in relation to previous studies, offering clear evidence of how universities can operate as dynamic institutional infrastructures capable of regenerating public capacities in real contexts.

Finally, the study concludes that institutional regeneration is a continuous, situated, and intrinsically relational process. Its effectiveness depends on appropriate pedagogical infrastructure, active methodologies of listening and mediation, and, above all, institutional courage to intervene directly in contexts marked by asymmetries and complexity. In this scenario, the university assumes a new centrality as a critical infrastructure for democratic, regulatory, and territorial innovation—acting not at the margins of contemporary public disputes but strategically at their core. This role redefines not only the training of public talents but also the very meaning and future of higher education institutions as essential actors in the democratic governance of complex problems.

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