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Article

Handling the Subjacent Complexity of a Resocialization Program for Inmates: A Systemic Analysis and Leverage Points

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Abstract: The purpose of this article is to identify the main leverage points that can accelerate the results of the resocialization program via prison work implemented in one of the states of Brazil. The research method was design science research. The main research technique was a systemic analysis, a technique belonging to the field of knowledge of the soft systems methodology. The systemic analysis mapped and listed in closed loops the factors of major influence on the program's results. The sources of information were meetings with specialists from the prison public administration and a survey of the state population. The main deliverable of the study is a systemic map with the identification of two leverage points that, if addressed by the public administration, can remove the main obstacles to the program, the insufficient funds for investment in justice structures, and the skepticism of a large part of the population. The team of public agents responsible for managing the program validated the conclusions.

Keywords: complexity; system thinking; leverage points; closed-loop systems; resocialization; prison working; insecurity perception; public security

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1. Introduction

Rio Grande do Sul (RS) is the southernmost state in Brazil, with an estimated population of 11.5 million inhabitants. The Superintendence of Prison Services in RS (SUSEPE/RS) estimates that the state prison population in June 2022 reached 43,524 people, formed of 41,155 men and 2369 women [1]. Since 2016, the average rate of return after serving time has exceeded 40% [2], which is reflected in the local economy. According to the Regional Competitiveness Survey released by the American Chamber of Commerce (AMCHAM) in 2018, leaders from 100 organizations pointed out lack of security as the main responsible for inhibiting the development of the local market [3].

Despite some criticism regarding social responsibility [4], new business management models encompass not only environmental but also social concerns [5]. Private companies can play a key role in addressing complex social problems by taking a collective action approach [6] to the development of local [7] or regional initiatives [8]. The exponential increase in social, political, and environmental concerns [9], as well as the collective interest [10], have stimulated public and private entities to address public security issues [11]. The prison labor program implemented by SUSEPE/RS aims to reduce criminal recidivism, with a consequent improvement in public security.

Complexity is probably the most fundamental characteristic of contemporary society [12]. In complex systems, interconnected and interdependent elements create feedback loops involving their contexts. As those loops may include uncertain time lags between cause–effect relationships, outcomes can show crisp and sudden oscillations, resulting in

dynamic behavior, sometimes difficult to understand under a linear perspective. Many times, it is necessary to define a state space in which the outcome of the system may range and observe its behavior over time and all over this space to identify the dynamic nature of the complexity [10].

The literature offers many methods to handle systemic complexity and complex systems. This research uses soft systems methods (SSM). SSM includes tailored tools, such as archetypes and causal loop diagrams (CLD), to analyze human, physical, and technical systems, relying on cognitive and social psychology, economics, and other social sciences [13], examining all aspects, issues, concerns, perspectives, and the entire context of a complex problem [14]. SSM can provide viable solutions for unstructured, ill-defined, or personal perspective-dependent problems [15], as usually observed in public security issues. The underlying dynamic complexity can be thought of as the outcome of choices made by social actors defending their interests that eventually lead to ultimate, unintended, or unexpected consequences. Uncovering the underlying structures that shape the systemic behavioral pattern [16] can help to find leverage points to tackle those consequences [17], as well as specific objectives that are valid in unique contexts [18].

In complex decision-making processes, policymakers need modeling and simulation tools. A systemic approach can provide such tools [19], embracing multiple aspects in temporal and spatial dimensions [20]. A systemic analysis addresses problems by identifying them as a complex system, by mapping and analyzing elements, connections, and possibilities for improvement, the so-called leverage points [21]. The purpose of this study is to identify leverage points that can make the prison labor program implemented by SUSEPE/RS more effective. The research method was design science research. The main research technique is qualitative systemic modeling, supported by interviews with experts and a survey with a sample of citizens of the state. The study connects with the field of open innovation as it explores and promotes ideas that can be joined and managed by innovative support products, such as APPs or software licenses [22].

2. Background

Resocialization practices aim to reduce criminal recidivism through the rehabilitation of offenders. Resocialization seeks to restore the self-esteem and dignity of inmates, providing professional benefits and preventing recidivism [23]. Public assistance and programs can help offenders to have better economic prospects after serving time. [24]. The low level of education and qualification for a formal labor position reinforces the problem and limits access of the ex-convict to job vacancies after a sentence [25].

The reality of the Brazilian prison system hardly provides conditions for the social reintegration of convicts. The period of imprisonment does not favor social reintegration, which intensifies the marginal role of the convict [26]. The study of [27] exposes a perspective of the level of influence of educational and work activities in the social reintegration of inmates in the Brazilian state of Rio de Janeiro. The author found that routines of studies and working during sentences decrease the likelihood of recidivism by 39% and 48%, respectively. The study shows that both work and study are decisive for the successful resocialization of Brazilian inmates, having a direct influence on reducing recidivism. The study also shows that labor during sentences is the most determining factor in reducing recidivism in Rio de Janeiro. The study of [26] compared two prison houses in the Brazilian state of São Paulo, which promoted rehabilitation programs, respectively based on religious faith volunteers and skilled labor. The first achieved a recidivism rate of 4% among the religious volunteers (13% for the entire prison population), and the second achieved 13% among the skilled workers (36% for the entire prison population). By the time of the study in [26], the overall Brazilian rate was greater than 50%. In both cases, the average time to parolees' rearrest was significantly higher and the new offense average severity was significantly lower than the respective national average.

In RS, SUSEPE establishes partnerships with companies that provide paid jobs to prisoners inside and outside prison houses. The activities include general services, public

works, urban services, recycling, agricultural activity, and handicrafts [1]. Nonetheless, a certain degree of skepticism regarding the presence of convicted people outside prison houses exists. The low public acceptance is a compromising factor for the success of such programs [26]. In this regard, the Brazilian state of Santa Catarina, bordering RS, is a national benchmark. According to publicly available information on the institutional website of the Secretary of State for Prison and Socio-Educational Administration (SPA), investments in labor policies resulted, until January 2020, in approximately 7200 prisoners working through more than 260 agreements with companies and public entities (31% of the total prison population in the state). The Penitentiary of the city of Curitibanos is a benchmark in the local prison system, with 100% and 50% of inmates involved in working and studying activities, respectively. In 2020, 120 prisoners from the Chapecó Agricultural Penitentiary dedicate their days to the manufacture of disposable masks (employed in the COVID-19 outbreak), delivering more than 600,000 items per month [28].

The benefits extend beyond the prison scenario since the agreements also provide tax incentives [29]. The increase in vacancies is reflected in the image of stakeholders involved in the projects and, consequently, in society. For the prisoner, the main advantages are the remission of sentence, professionalization, increased self-esteem, income generation, and family budget. In turn, the employer receives an exemption from social charges.

3. Methodology: Systemic Methods and Techniques

This study relies on design science research (DSR), which aims at designing artifacts to meet specific objectives [30]. Artifacts are artificial systems designed in specific contexts to achieve unique goals [31]. Security policies are examples of artifacts aiming at meeting specific needs, under concrete specific restrictions [32]. This study seeks to build and evaluate artifacts that allow moving the current system state to a better one.

The systemic analysis collected data and information from (i) official websites of public control agencies, (ii) interviews with key members of SUSEPE/RS (coordinators of the prison labor team, social workers, and psychologists), and (iii) a survey supported by the Google Forms platform. A non-probability sample of respondents was selected, aiming at reproducing the characteristics of the population. Response quotas were defined based on demographic characteristics such as gender, family income, age, and education level. The survey identified opinions and beliefs and gathered perspectives and perceptions about the resocialization programs. Finally, focus groups were conducted with SUSEPE/RS for feedback and the final validation of findings.

Systemic Structures and Methodology

CLDs employ nodes (variables) connected by directional edges (events or states) representing causal influences that can generate circularities [33]. CLDs unveil underlying interrelationships representing the essential structure of a complex problem [14]. SSMs use CLDs as a methodological alternative to overcome the limitations of rationality in depicting cause–effect relationships in complex systems [34]. Figure 1 shows the symbology.

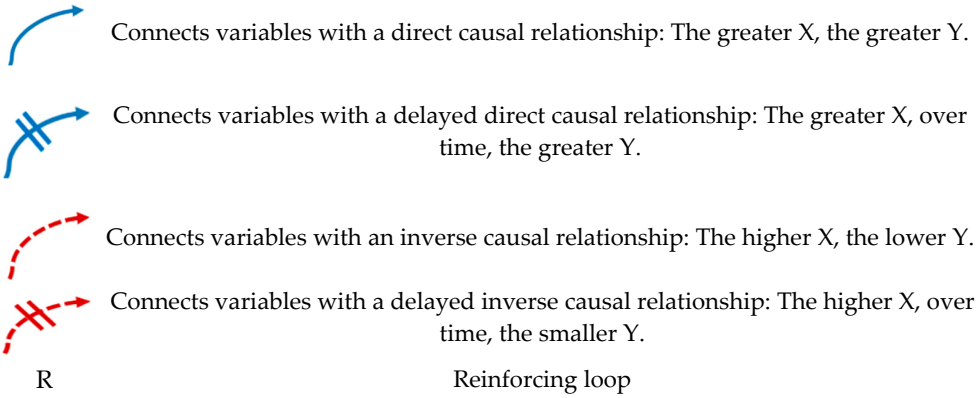


Figure 1. Relationships between the variables.

To summarize, the methodology went through the following steps:

- Interviews with the staff of SUSEPE/RS and consultation with official websites, which resulted in a list of key systemic events and five guiding questions (GQ);
- Survey with 145 sampled respondents;
- Construction of the systemic structures;
- Derivation of potential leverage points; and
- Final feedback meeting with the staff of SUSEPE/RS.

The initial and final triangulation meetings with the staff contributed to ensure the validity and reliability of the findings.

4. Results: The Artifact

In the first round of meetings, members of the staff of SUSEPE/RS cited relevant difficulties: lack of facilities, scarcity of human resources, insufficient funds, ignorance and prejudice on the subject, and overcrowding of prison houses. The same budget deficiency that causes overcrowding compromises the implementation of improvements aimed at prison management. The State's financial situation limits the modernization of the system and the hiring of professionals specialized in data analysis. Members of the staff also defined key variables and goals for the program.

The next step was the survey, answered by a sample of 145 respondents. A total of 68.3% knew or at least heard about prison labor. Among the discursive responses, a major concern emerged, pointing to the lack of basic education as the main cause of insecurity. The governmental omission is also highlighted as an important factor in the increase in violence and crime on the streets. Part of the criminals would choose the crime due to the lack of alternatives or the illusion of having a better life without a correspondent effort. Social inequality is also seen as a factor. Investment in education, and incentives to develop educational, technical, and sports activities can reduce crime rates in the long run. Respondents still indicate impunity as a catalyst for crime, especially in serious cases. The loopholes that exist in Brazilian laws facilitate the actions of highly dangerous criminals, which, according to part of the interviewees, encourage new crimes. Additionally, issues involving remuneration, training, and equipment of police officers are seen as determinants of their dissatisfaction, since they risk their lives for low wages paid in arrears.

4.1. Key Events, Variables, and Guiding Questions

The data helped to identify key events that determined the path trajectory of the system, its chronology, and key variables. The CATWOE typology helped to structure key events and variables. The expression CATWOE is a mnemonic used in Soft Systems Methodology (SSM) that identifies the key elements of a system: client, actor, transformation, worldview, owner, and environment [35]:

- Customers (C) benefit or suffer from the system. In this case, the population is the customer. Events and variables that may somehow reflect on the population's quality of life are C;
- Actors (A) can transform the system. In this case, law and order forces are the actors;
- Transformation (T) embraces bifurcation points, decisions that change processes. In this case, T includes the events that influenced the system;
- W (Weltanschauung, a German jargon meaning worldview) includes beliefs that justify the relevance of a transformation;
- The owner (O) refers to entities that drive or hinder transformation. Creating W and exercising O are prerogatives of the democratically elected local government; and
- Environment (E) refers to external elements relevant to the system [35].

Table 1 shows the events and variables under the CATWOE classifications. For convenience, the study unified W and O.

Table 1. Systemic events and variables.

CATWOE	Period	Relevant Events in RS	Event-Related Variables
C	2006–2016 2010–2016 2011–2017	70% increase in the homicide rate. 128% increase in robberies. 56% reduction in escapes of prisoners in the border state of SC.	Quality of life Unsafety perception Unemployment Social inequality
A	2015 2016	Elimination of overtime, wages delays, and installment. Significant decrease in the police force.	Police satisfaction at work Deficit of police officers Hiring new police officers Retirement of police officers
T	2016 2018	A new prison house inaugurated with a humanitarian proposal. Agreement to build another new prison house.	Vacancies in recently built prisons Investment in public security, health, and education for vulnerable populations
W/O	2019 2019	UN agency presents suggestions for preventive actions and the use of police force. Transversal security program (prevention, qualification of police repression, punishment, and rehabilitation).	Preventive public security actions Available prison work vacancies Available prison study vacancies
E	2006–2016 2018 2016–2026	Brazilian prison population increased from 401 thousand inmates to more than 726 thousand in 10 years. RS prison system is 43% above capacity. Estimated prison population growth of 8.30% per year, reaching 1.5 million in 2026.	Percentage of inmates that study Percentage of inmates that work Percentage of overcrowding of prison houses Crime rate Recidivism rate The absolute number of inmates

The findings of the previous steps helped to elaborate guiding questions (GQ, Table 2) to measure the level of achievement of the objectives of the study.

Table 2. Guiding questions.

Tag	Question
GQ1	What kind of impact may be expected from the resocialization program driven by prison labor programs?
GQ2	Which factors cause the insecurity perception in the population?
GQ3	How can the government tackle recidivism?
GQ4	How can resocialization programs influence criminality?
GQ5	Overall question: How to leverage the positive impacts of prison work and study programs?

The answers to the GQ helped to construct the CLDs. To reinforce connections, supporting and intermediate variables were added between the main variables. The same variable may appear in more than one GQ or structure. To better understand the structures, they were presented partially.

4.2. The Systemic Structure of the Problem

The construction of the systemic structures must rely on the exploration of GQs [36].

GQ1 addresses the economic and social impacts of the prison work program. The source of information is the regional competitiveness survey released by AMCHAM in 2018. Table 3 presents quotes from the text and related variables. Figure 2 shows the key parts of the structure.

Table 3. GQ1.

Quotes	Related Variables
"The lack of security is primarily responsible for inhibiting the development of RS, limiting local competitiveness". "Entrepreneurs fear for their security, which directly reflects on the attractiveness of RS to new investors and talents".	Private investment attractiveness Perception of insecurity Competitiveness New companies Job vacancies

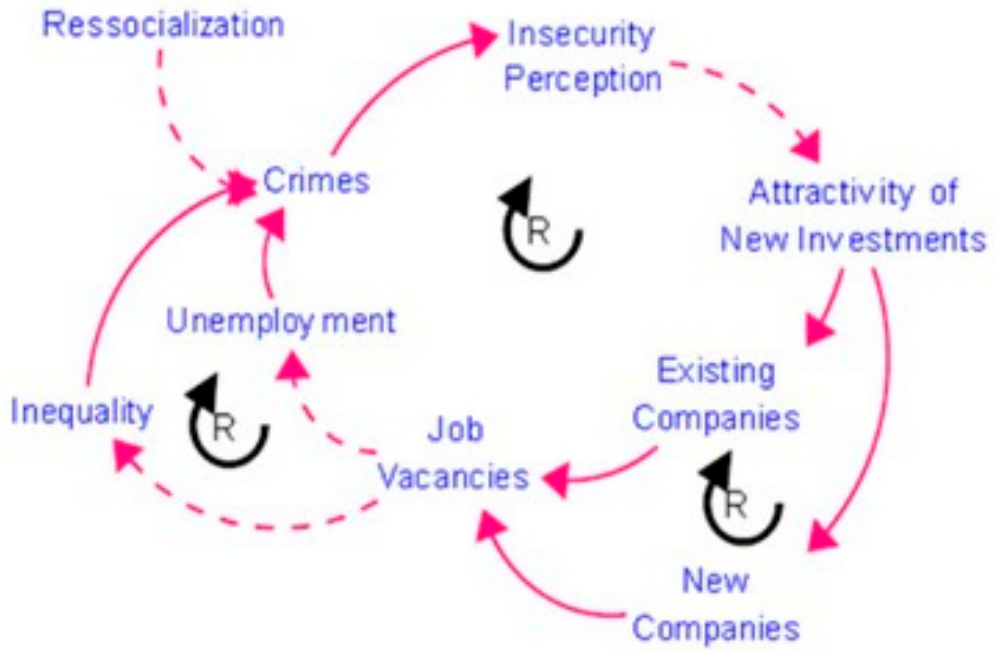


Figure 2. CLD of GQ1.

Figure 2 shows the impact expected from prison resocialization programs driven by schooling and prison work.

Resocialization can curb recidivism. Offering schooling opportunities and job vacancies to inmates can reduce new crimes, which in turn reduces the perception of insecurity and increases local attractiveness for investments in new or existing companies. Over time, in a long-run period, new investment reinforces crime reduction and, as a positive feedback movement, conveys more investment.

GQ2 refers to the citizen's concerns about public safety. The source of information was the opinion survey applied to a sample of the population. A total of 72.4% of the sample do not feel safe outside the home. Table 4 shows the main issues related to GQ2 proposed in the survey. Figure 3 shows the key parts of the structure.

Table 4. GQ2.

Quotes	Related Variables
A larger contingent of police officers Fair and up-to-date wages for police officers Implementation of the Education Culture Severe sentencing for heinous crimes More health, safety, and education	Impunity Insecurity Criminality Deficit of officers Fear of occupying public spaces, mainly at night Investments in safety, health, and education

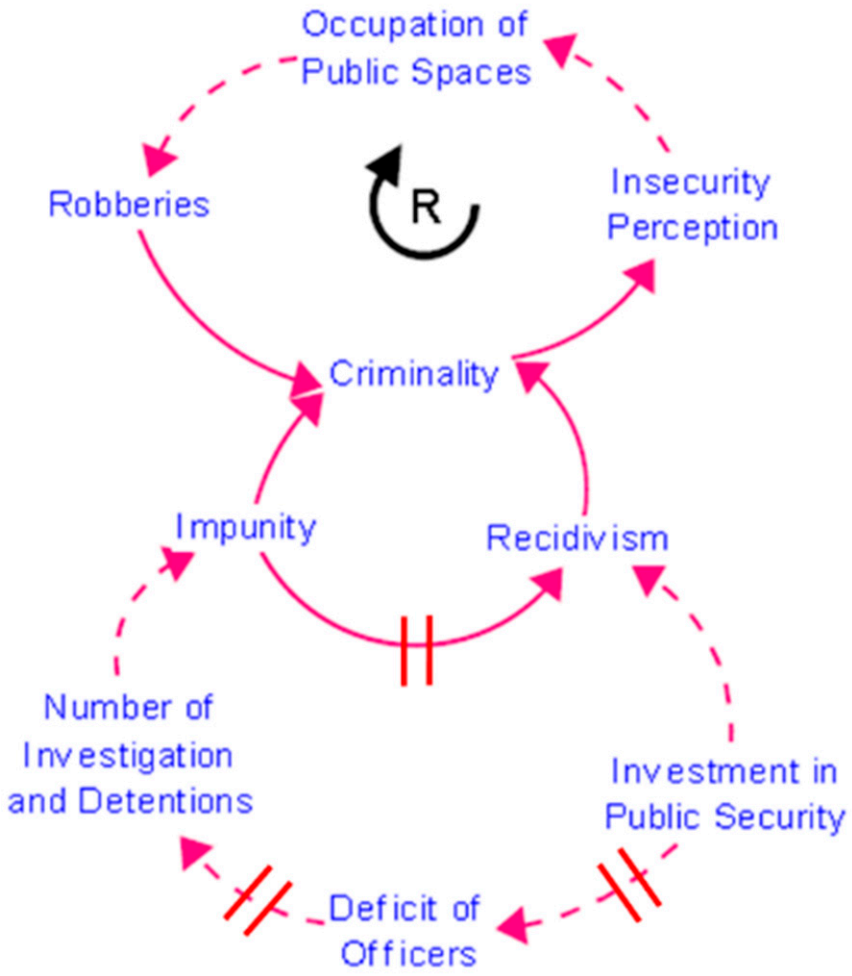


Figure 3. CLD of GQ2.

The issue involves factors related to the respondents' greatest concern, which is the lack of investments and actions aimed at public safety. Funding limitation is considered the most critical cause of the problem, as it reduces the number of police officers on the streets. The lack of police surveillance generates impunity and encourages recidivism, which in turn produces a sense of insecurity that discourages the occupation of public spaces and reinforces criminality.

GQ3 considers the main obstacles faced by the government in tackling criminal recidivism. The source of information is the first round of meetings with the staff of SUSEPE/RS. Table 5 shows the main issues concerning GQ3, along with its related variables. Figure 4 shows the key parts of the structure.

Table 5. GQ3.

Quotes	Related Variables
Insufficiency of funds prevents public and social investments	Funds deficit
	Crime rate
Unemployment and inequality reinforce criminality	Overcrowding
	Deficit of officers
Overcrowding prevents work and study in prison houses	Delay and installment of wages
	Investments in safety, health, and education

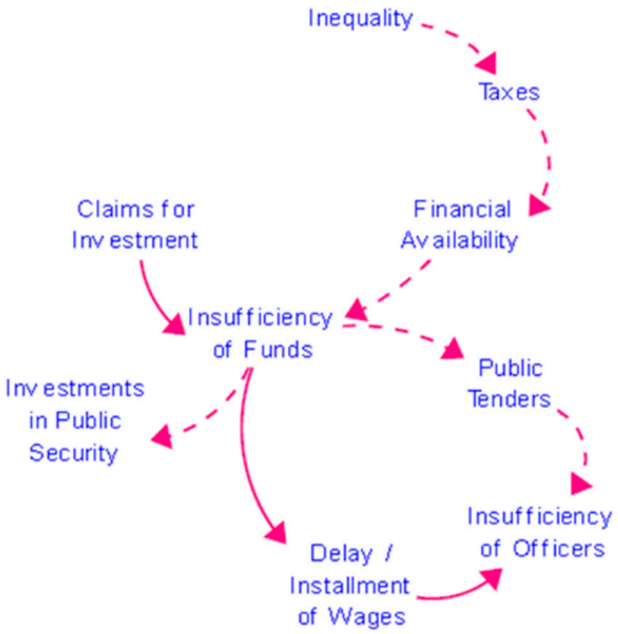


Figure 4. First partial scheme of the CLD of GQ3.

The main challenges stem from a chronic, permanent insufficiency of funds, which jeopardizes investments in public security and human development. The population craves quick and effective solutions, claiming for more public funds that would immediately ensure full wages and public tender procedures to bridge the gap left by retired officers. Figure 4 shows the key elements of the gap.

Supported by investments in health and education, citizens' quality of life and professional qualification tend to improve, providing long-run access to qualified education, professional development, and formal jobs. On the other hand, unemployment increases competition, decreasing the chances of people with less access to studies and professionalization to find a position. More jobs and less inequality prevent individuals from engaging in crime and, at the same time, increase local economic activity. Consequently, the increase in taxes levied by the State increases the capacity for public investment. Figure 5 shows the key elements to mitigate factors that boost criminality.

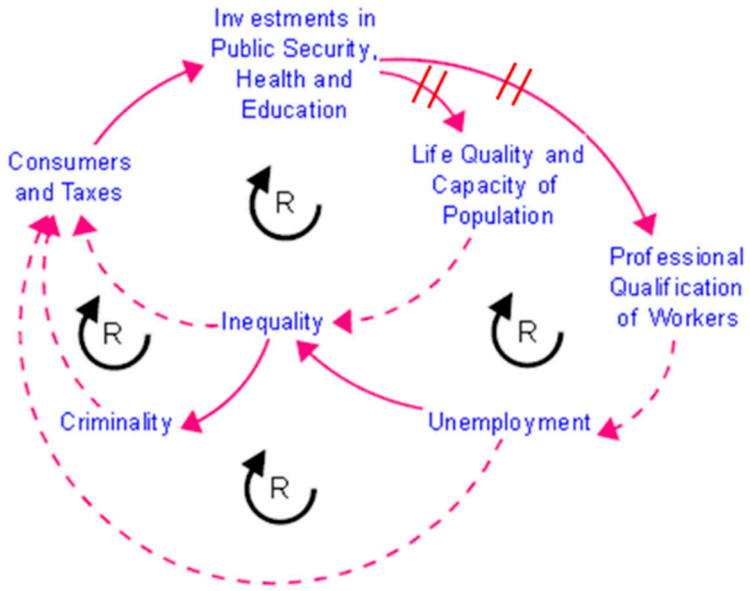


Figure 5. Second partial scheme of the CLD of GQ3.

GQ4 considers how resocialization programs influence criminality. The sources of information are the meetings with the staff of SUSEPE/RS, the survey, and other data collections. Table 6 shows the main issues regarding GQ4. Figure 6 shows the key parts of the structure.

Table 6. GQ4.

Quotes	Related Variables
Studies help in finding a job vacancy Inmates who work are more likely to continue working after a sentence Agreements with companies and municipalities provide extra funds About 67% of people don't believe in the resocialization of former convicts Ordinary people are skeptical regarding convicts' resocialization	Agreements for study and job vacancies Recidivism Inmates skilled People's sympathy for resocialization

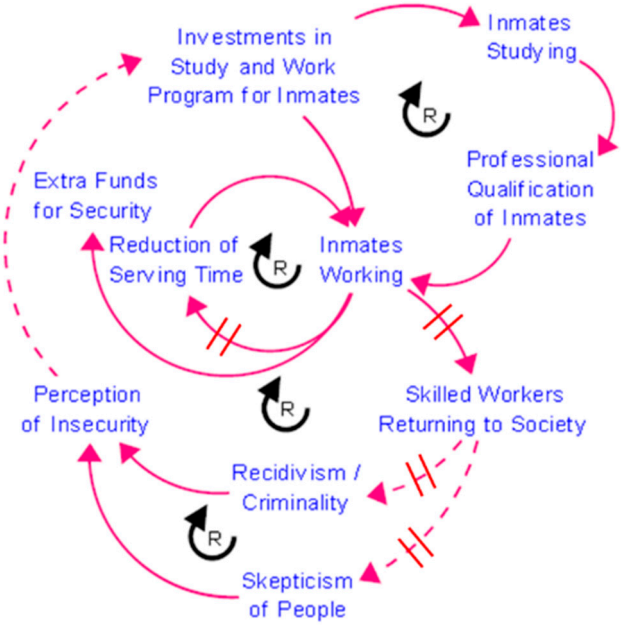


Figure 6. CLD of GQ4.

Agreements that offer study and job vacancies provide extra funds for security and at the same time boost inmates' skills. A proportional time reduction (three days on the job and one day less in the serving time) granted by law provides a positive feedback loop that reinforces adhesions. Eventually, skilled workers return to society, reducing recidivism and peoples' disbelief, which reflects a reduction in the perception of insecurity. Successful initiatives to reduce insecurity provide positive feedback to more agreements.

The overall question GQ5 complies with the main objective of the study, which is to identify leverage points to drive the resocialization program of RS. GQ5 requires a complete systemic structure. Complex systems can be mapped using loops that allow the identification and judgment of the main constraints that hinder the evolution of the system [37]. Identifying cause-and-effect relationships in a system made up of multiple subsystems requires putting together multiple CLDs [38]. Previously presented structures were compiled and synthesized. The structures support the identification of key avenues and the leverage points required to overcome bottlenecks. The bottlenecks are the major difficulties that will hardly be overcome without additional significant effort. This is the artifact, the final delivery of this study.

4.3. Synthesized Map and Leverage Points

Compiling the structures related to the four GQs gives rise to a unique CLD that includes only the key system variables and relationships. This overall CDL comprehensively analyzes the problem and helps to answer GQ5. Figure 7 shows the synthesized CLD of the system.

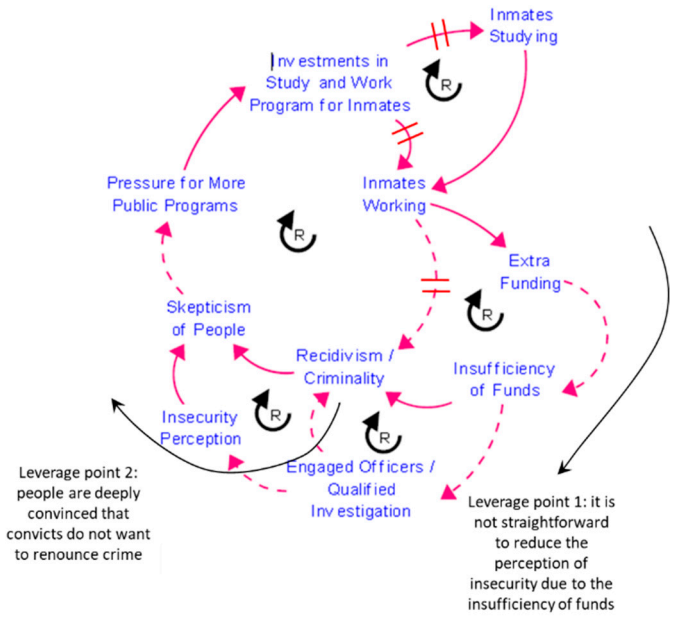


Figure 7. Systemic structure for GQ5.

The opinion survey identified three major elements that hinder the evolution of the system and are difficult to remove, or at least mitigate: (i) the perception of insecurity due to the chronic insufficiency of funds, (ii) the population's skepticism about convicts abandoning crime, and (iii) the chronic lack of investments in health and education. The first two points are within the scope of the convicted resocialization program. The third point is out of scope, as it encompasses broader elements, such as the democratically elected government program and changes in the State's tax structure and fiscal administration.

To reduce insecurity perception, the first leverage point requires understanding how to match reduced budgets with increasing requirements for public security. This problem is already afforded by the public administration of the border state of SC. Therefore, the first leverage point is to search for consultancy with members of the public security administration of SC. According to figures released by the Department of Prison Administration of SC, currently, its prison system has about 22 thousand prisoners, of which 31% works in prison houses. In 2018, the program gathered BRL 24 million (BRL 1 = USD 5.5). These values return to the system funding improvements for the prison units, mitigating one of the main weaknesses of the RS prison system, the lack of resources. Such a contribution could equip the police force and reduce the perception of insecurity and injustice. Additionally, making re-socialization self-sustainable or at least less costly would be a fair way of making prisoners pay back to society, which can contribute to the second leverage point, reducing population skepticism.

The second leveraging point requires understanding why people reject resocialization. The staff at SUSEPE/RS pointed out ignorance and skepticism as the main barriers to prison jobs. Such barriers discourage companies from accepting prison work, reduce the number of vacancies offered, and demobilize managers and convicts. Despite the tax benefits offered, few companies are interested and tend to reject contact with inmates. To a lesser extent, municipalities also tend to reject the presence of inmates in public works. Therefore, the second leverage should disclose the benefits that effective resocialization programs can entail.

4.4. Mental Models: Beliefs That Shape the System

To modify reality, it is necessary to pinpoint how actors think and believe about key points of the system. One possible approach is to explicitly enunciate the mental models, that is, collective or individual beliefs that reinforce or balance key loops and shape the system [34]. In modern societies, dealing with political demands is crucial. The study of [39] evaluates the participation of actors as citizens and entrepreneurs in decisions that involve public interest. The influential beliefs or mental models of individuals or categories directly affected by the problem were considered, which included prisoners, public security agents, citizens, and business entrepreneurs. Table 7 shows the identified actors and their respective mental models.

Table 7. Actors and mental models.

Actor	Mental Model
Inmates	'This is my best chance to never go back to jail.' 'I can help my family too.' 'It is hard for an ex-convict to find a new chance.'
Citizenship	'Criminals don't deserve my taxes.' 'Police officers should be more valued.' 'It is difficult to see police vehicles in the neighborhoods and streets.' 'Leaving the house and occupying public spaces at night is risky.'
Staff	'Citizenship does not understand our efforts and does not accept our goals.' 'With formal agreements, it is easier to work.' 'With insufficient funds, it is impossible to maintain re-socialization programs.'
Entrepreneurs	'I should look for a safer place for my company.' 'My staff doesn't like interacting with inmates.' 'The indicators of SC State are interesting.' 'Tax exemptions are advantageous.'

4.5. Final Meeting: Polishing the Artifact

The results were evaluated in a final meeting with SUSEPE/RS staff. The staff emphasized the relevance of economic and social impacts, as the acceptance of activities and results is essential for the program. In general, the variables, cause–effect relationships, and systemic connections were considered appropriate and compatible with the reality of the RS prison work program. The guiding questions were considered pertinent, since they investigate the main focuses of the program, serving as a measure of its level of delivery and efficiency. The management agreed with the guiding questions and with the leverage points and authorized the staff to contribute with additional details.

Regarding the first leverage point, the most important challenge is to overcome the insufficiency of funds that hinder initiatives to reduce recidivism and no longer reinforce the perception of insecurity.

A proposed action is the integration and learning with staff from the state of SC and other Brazilian states. The first step was already taken in April 2019, when a meeting of directors of regional prison units took place in Brasília. The staff of SUSEPE/RS has already learned some knowledge experienced by other states. One experience tells that expanding prison houses to install industrial workshops and work sheds must precede the offering of vacancies to companies. Another aspect is the composition of the work team, which today consists essentially of psychologists and social workers. It will be necessary to incorporate management professionals, such as data analysts, systems analysts, and negotiators to specifically show the advantages of tax reductions to interested companies. The SC team has specific software for crossing prison data and opportunities across the state, which complies with the concept of open innovation [22]. This combination of skills

may identify more job offers and eventually increase the program's revenue. In the long run, the reduction in criminality due to reduced recidivism could bridge or at least mitigate the chronic shortfall in funds allocated to public security.

Regarding the second leverage point, the most important challenge is to overcome the chronic skepticism regarding initiatives that could benefit inmates and no longer reinforce the insecurity perception. The sensation of injustice shapes popular beliefs, which make ordinary people deem that inmates do not deserve public investment supported by taxes. The staff believes that there should be a structured program for communicating the benefits that can be achieved and the current results of the resocialization program. Ignorance and skepticism reinforce the challenge. The staff points out the lack of clarity in key points of the program as one of the factors that hinder the opening of new job vacancies. Tax incentives are not always attractive enough to overcome the distrust of entrepreneurs and municipalities. It would therefore be necessary to offer safeguards to mitigate risks and disclose results achieved in other states to engage new supporters. The same is true for state government internal entities. An eventual reallocation of the prison administration within the government map could guarantee more funds for public security. However, budget management follows the program of the democratically elected government and is outside the current scope.

5. Final Remarks

This study constructed an artifact whose main purpose is to point out alternatives to strengthen and reinforce a program of resocialization of prisoners through study and prison work. The study addressed aspects related to public security as a complex system consisting of interconnected and interdependent elements since changes in one or more variables can result in unexpected or unintended changes in other variables or the overall output of the system.

Although more commonly connected to social perspectives, it is not possible to forget the economic impact involved in public security, directly affected by criminality. The results were considered positive and satisfactory since the developed artifact provided a global view of the system and contributed to formulated leverage points or courses of action that potentially meet the needs evidenced in the resocialization program in the short and medium term.

In a democratic nation such as Brazil, the alternation of government is a reality and can indeed become a threat to the continuity of any program, which includes inmates´ rehabilitation. To make the program less vulnerable to changes in political orientation is to make it depend more on the legislature and civil society entities and less on the public budget managed directly by the governor. Nonetheless, actions that may depend on the elected government plan and safeguards for government changes are outside the current scope.

The systemic view provided by this study opens room for future work, as there are still aspects to be explored concerning prison resocialization. For further research, it is suggested to detail the leverage points so that they become objective action plans. It is also suggested to replicate the opinion survey after the implementation of the action plans to assess the consequences of the actions with the citizens of the state of RS. Structural aspects, such as corruption, social dysfunction, and funding commitment to inmates' rehabilitation, also require new in-deep studies.

An additional implication is a possibility of developing a product relying on open innovation concerns, such as licensing agreements or startup projects [40] aiming at supporting resocialization requirements. Such a product could connect the necessities of the public administration with offers provided by companies [41], such as artisanal SMEs (small and medium enterprises), that could boost public programs [22].

The article also opens room for further research, including different perspectives on the theme. One point that further research should embrace is the double reality of prisons, not only as total but also as porous institutions [42]. Such porosity indeed facilitates inmates'

resocialization programs relying on work and study, such as the program approached in this article. Another point is to verify and eventually reinforce recent insights of classic theories that state that more benevolent prisons, including resocialization programs, would rehabilitate offenders more effectively [43]. Finally, a new approach should investigate the systemic effect of religious, meditation, or yoga programs on variables that could increase the likelihood of inmates to succeed in labor or study programs (depression decrease, attention increase, emotional stability, and so on) [44].

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