

# Analysis of public action instrumentation from the perspective of the actor-network theory: social technology and rural education in Rondônia

**Jackeline Amantino de Andrade**

Universidade Federal de Pernambuco / Programa de Pós-Graduação em Administração  
Recife — PE / Brazil

**José de Arimatéia Dias Valadão**

Universidade Federal de Lavras / Programa de Pós-Graduação em Administração Pública  
Lavras — MG / Brazil

This article discusses the use of social technologies for the instrumentation of public action and the adoption of actor-network theory as support for relational analysis. In order that, a qualitative case study was carried out to analyze the adoption of pedagogy of alternation as an instrument for rural education policy in the state of Rondônia, Brazil. It was found that, although the state government wanted to define a standard model, the instrumentation of rural education was translated differently in different regions of the state, through public action that involved a broad actor-network. Concluding that, as a result of these multiple and different forms of sociotechnical instrumentation of public action, there is a greater demand for the opening of government actors to the relational dynamics of the process of construction of public policies.

**Keywords:** actor-network theory; social technology; policy instruments; rural educational policy; pedagogy of alternation.

## Análise da instrumentação da ação pública a partir da teoria do ator-rede: tecnologia social e a educação no campo em Rondônia

Este artigo discute o uso de tecnologias sociais para a instrumentação da ação pública e a adoção da teoria do ator-rede como suporte para a análise relacional. Para tanto, um estudo de caso qualitativo foi realizado para analisar a adoção da pedagogia da alternância como instrumento da política de educação rural do estado de Rondônia, Brasil. Constatou-se que, apesar de o governo estadual querer definir um modelo padrão, a instrumentação da educação no campo foi transladada diversamente em diferentes regiões do estado, por meio da ação pública que envolveu uma ampla rede de atores. Concluindo que, em decorrência dessas múltiplas e diferentes formas de instrumentação sociotécnica da ação pública, existe uma maior demanda pela abertura dos atores governamentais à dinâmica relacional do processo de construção de políticas públicas.

**Palavras-chave:** teoria do ator-rede; instrumentos de política; tecnologia social; política de educação no campo; pedagogia da alternância.

## Análisis de la instrumentación de la acción pública desde la teoría del actor-red: tecnología social y la educación rural en Rondônia

En este artículo se analiza el uso de las tecnologías sociales para la instrumentación de la acción pública y la adopción de la teoría del actor-red como soporte para el análisis relacional. Por lo tanto, un estudio de caso cualitativo se realizó para analizar la adopción de la pedagogía de alternancia como instrumento de la política de la educación rural en el estado de Rondônia, Brasil. Se encontró que mismo, aunque el gobierno del estado quiere establecer un modelo estándar, la instrumentación de la educación rural se ha traducido de forma diferente en diferentes regiones del estado, a través de la acción pública que comprende una amplia actores de la red. Concluyendo que, como resultado de estos múltiples y diferentes formas de instrumentación socio-técnico de la acción pública, hay una mayor demanda de la apertura de los actores gubernamentales a las dinámicas relacionales del proceso de construcción de políticas públicas.

**Palabras clave:** teoría del actor-red; instrumentos de las políticas; tecnología social; política de educación rural; pedagogía de la alternancia.

DOI: <http://dx.doi.org/10.1590/0034-7612153318>

Article received on Aug. 16, 2015 and accepted on Jan. 9, 2017.

[Translated version] Note: All quotes in English translated by this article's translator



## 1. INTRODUCTION

Despite having played a central role in public policy analysis since the beginning with Harold Lasswell in the 1950's (Pal, 2010), instruments have been little used, especially in Brazil. However, when dealing with public policy implementation, policy instruments are usually recalled and, as Hood (1983, 2006, 2007) highlights, beyond a sought technical rationale, it is necessary to recognize that political, ideological and cultural aspects are always involved.

Policy instruments, therefore, are not neutral, always having situational aspects, considering that technical elements are always attached to the social aspects (Lascoumes e Le Gales, 2007). Namely, practical materiality, which reflects different capacities, symmetrically performed by social and technical aspects, and will be expressed in the effects of the instrumentation of the public action. (Lascoumes and Le Gales, 2007).

In this sense, Lascoumes and Le Gales (2007) suggest that public action instruments are socio-technical mechanisms that guide the relationship between the State and civil society. Such relationship has typified contemporary public policies in the sense that, according to Farah (2011), the notion of public goes beyond the borders of the State, including civil society organizations in its processes of formulation, implementation and control.

In turn, the action of organized civil society in ordinary problem solving has been the original characteristic of the so-called Social Technology (ST). It consists of a collective effort oriented towards the solution of daily socio-environmental issues through the interaction, knowledge and initiatives of local communities themselves, which allows for social inclusion, autonomy, sustainable development and social transformation (Bava, 2004; Freitas and Segatto, 2014; Peyloubet et al., 2010; Rodrigues and Barbieri, 2008; Thomas, 2009).

That is the case with the Pedagogy of Alternation (PA), recognized as an ST by several governmental and non-governmental Brazilian agencies, including the United Nations (UN). Originally created in France by the peasantry, before World War II, in order to meet rural educational needs, it is currently present in Europe, Africa and Latin America, addressing the demands of rural communities, sturdily based in family associations that implement a comprehensive education based on the alternation between school and rural activities, which is inextricable from an education that aims local and sustainable development. In Brazil, its first schools were established in the late 1960's.

In recent years, similarly to other STs, the PA has been signaled as a sociotechnical device for the instrumentation of rural educational policies. Such tools can be applied in order to contemplate the specific educational demands for rural populations in Brazil that has been discussed for a few decades. Therefore, the right for education in rural areas under different parameters, built by the subjects that experience them, as is the case in the PA, was conquered and now demands for the introduction of innovative policies in Brazil (Brazil, 2007).

However, it is necessary to better explain the public action instrumentation analysis proposed by Lascoumes and Le Gales (2007, 2012b) as a procedural dynamics analysis that combines heterogenic elements based on the relationship between agents and instruments. In order to do so, the present article adopts the actor-network theory (ANT) operationalizing the analysis of public action by its outcomes, as suggested by Lascoumes and Le Gales (2012b), clarifying that this theory has been

adopted in public policy analysis in Andrade (2006), who reviews the formation of public policies in Brazil, and in Grau-Solés, Íñiguez-Rueda and Subirats (2011), who review governance processes in urban Spain.

The purpose is to analyze instrumentation by following the relationship dynamics that involved several social and material actors in the generating of effects, as the ANT proposes, considering that instruments are not defined a priori by technical choices from the government. Thereby, the public action instrumentation analysis proposed is oriented towards the composition process of sociotechnical devices, considering the broadness and variety of actors involved in the open innovation process in which hybrid communities bring concreteness to their shared future. We will analyze the case study of the rural educational policies in the state of Rondônia between years 2010 to 2014, which adopted the Pedagogy of Alternation as a social technology.

Past this introduction, the theoretical background that oriented this investigation is presented in the next section, followed by the description of the research methodology adopted, indicating the type of study, as well as the data collection and analysis techniques. Finally, in the fourth section there is an analysis of the results, followed by final considerations.

## 2. THEORETICAL-EMPIRICAL REFERENCES

### 2.1 GOVERNMENT INSTRUMENTS AND POLITICAL ANALYSIS TRADITION

Traditionally, policy instruments have been analyzed as government tools to achieve political goals through different public policies, having their efficiency evaluated by whether they meet the results expected by governing authorities. In such perspective, the analysis of the instruments reveals the intentions of those who choose them, as well as evaluates their performances by the achievement of intended results in the political realm (Linder and Peters, 1989), essentially favoring technical rationale (Lascoumes and Le Gales, 2007, 2012b).

Thus, in the 1950's, references to instruments based on the political analysis of Harold Lasswell (1951) can be identified by the proposal to seek for efficiency in political decisions through rationalization. As Lascoumes and Simard (2011) clarify, the instruments approach was originally inscribed within the postulates of technical rationale attached to bureaucratic capacity and regulatory issues.

Alongside rational choice theory, Herbert Simon's bounded rationality theory was also incorporated. Thus, the instrument choice can also be analyzed in the variety of what governments wish to influence as a result of decision maker's subjective differences according to institutional and professional affiliation, as seen in Linder and Peters (1989), underlining also a cognitive dimension, beyond technical and regulatory propositions previously ranked in the analysis of public policy instruments between 1960 and 1970.

In the 1980's, however, there was the proposition of Hood (1983), in his book *The tools of government*, questioning neutrality in the choice of policy instruments, signaling to the presence of political, cultural and ideological factors and concluding that "each period tends to be dominated by one conceived vision or ideology that informs the good instrument for the government to use in his behalf" (Hood, 2007:137).

At the same time, Hood distinguishes three central approaches regarding governmental instruments: (i) those that consider instruments as institutions — such as the work of Lester Salamon (2000) that refers to new institutional and organizational forms as instruments for offering public policies in the scope of contractualization and outsourcing; (ii) those that take into consideration the selection of instruments, namely, the instrumentality policies — targeting the discussion of the political and cognitive processes that lead to the choosing of specific instruments; and (iii) those that describe and categorize instruments in general, namely, free of institutions and technologies — identified as tool boxes utilized for behavioral control and also for information measurement.

On the other hand, Lascoumes and Le Gales (2007, 2012b) argue that political instruments do not operate exclusively inside the technical dimension, orchestrating the purposes of governing agents, given that the public policies addressees have their particular interpretation, besides the instruments themselves pointing to their results after producing unexpected effects. According to the authors, if political instruments are not neutral, they are composed by condensed knowledge about societal control and how to exert it. For those reasons, it is also necessary to understand how policy instruments may produce effects regardless of the political goals subscribed in the respective public action (Lascoumes and Le Gales, 2007). Suggesting that instruments are inseparable from the agents utilizing them and do not carry a technical rationale themselves.

They also indicate that contemporary public action was reconfigured and is no longer restricted by a central State and governments. A multiplication of actors and instruments to deal with “public policies” has been taking place, conveying three different types of multiplication: (1) of the issues socially debated that range from world governance, such as global climate, to the cross-cutting local situations; (2) the multiplication of actors and spaces where public action is created and practiced, as well as the diversification of actors, scenes and forms of interaction; and (3) that also implies a diversification of the instrumentation, given that “each intervention program is the product of a long historic sedimentation and combines a vast myriad of instruments [...]” (Lascoumes and Le Gales, 2012b:209).

To Lascoumes and Le Gales (2012b:209), this implies moving from a traditional analysis to one that is able to comprise “the complexities of intertwined public actions”. Therefore, it is necessary to adopt a process analysis that allows for accompanying the relational intertwining of agents in order to understand the instrumentation of the public action by the effects generated.

## **2.2 POLICY INSTRUMENTS AS DEVICES FOR THE INSTRUMENTATION OF THE PUBLIC ACTION**

Considering the lack of neutrality of policy instruments and the need to understand their association with the actors that utilize them, Lascoumes and Le Gales (2007) propose approaching them as knowledge-power devices, pursuant to Michel Foucault. Their goal is to overcome functionalist approaches to public policy instruments that consider them exclusively as a technical tool for the operation of programs seeking resolution to specific problems.

To that regard, they define instruments as “a device both technical and social that organizes specific social relations between the public power and its addressees according to the representation and meanings it upholds” (Lascoumes and Le Gales, 2007:4). Furthermore, they discuss the dimensions previously appointed by Hood (2006, 2007) within the specificity of their approach.

Therefore, as seen in Salamon (2000), Lascoumes and Le Gales (2007) understand institutions as means to stabilize collective action in a predictable manner. However, they do not consider instruments as new organizational forms, as does the former. To Lascoumes and Le Gales (2007), instruments as institutions are formed by routines instrumentalized by the relationship between state administration and civil society, establishing devices that combine technical and social components. At the same time, they no longer consider the general aspects listed by Hood (2007) regarding the behavioral control of policy instruments, suggesting that the instrumentalization of public action may be understood by its effects, rather than by the choices suggested by the instrumentality policy.

In Lascoumes and Le Gales (2012b), the instrumentation of public action is found in the choice and use of techniques and practices that allow for the materializing and operationalizing of the public action, which are therefore understood as devices that structure public policies. Thereby, as devices, instruments transport what is necessary to guide the relationship between State and society and each of them “is a condensed way of knowing social power and how to exercise it” (Lascoumes and Le Gales, 2012b:202).

In this sense, Lascoumes and Le Gales (2007:7) suggest that the analysis of public action instrumentation should follow the processes through which a combination of heterogenic factors occurs in order to “denaturalize technical objects, showing that their progress depends more on the social networks formed within the relationships than on their specific characteristics”. In order to make this analysis, scholars reference some actor-network theory authors; yet, without deepening their hypothesis. That is, analyze the device as a network, an ongoing process that interconnects heterogenic elements and strategically inscribes praxis, knowledge and physically and temporally located institutions, as proposed by Foucault (1983) when analyzing power/knowledge devices.

### **2.3 ACTOR-NETWORK THEORY AND PUBLIC ACTION SOCIOTECHNICAL DEVICES**

Within the approach of discussing public action instrumentation through the actor-network theory (ANT), its central elements will be presented, indicating how they may be auxiliary to the process analysis proposed by Lascoumes and Le Gales (2007). That is, understanding and explaining how parts, pieces, people and ideas are mobilized, juxtaposed, connected, combined and kept together, creating heterogenic materiality (Law, 1992), shaping the networks that instrument the public action process from interpersonal multiplicities.

As Michael (2004) highlights, the ANT process analysis is simultaneously oriented towards disseminated and unitary aspects of the interpersonal dynamic from which hybrid entities emerge and increasingly constitute our daily lives. It is worth to emphasize that those hybrids, or, as ANT proposes, those actor-networks, result from traverses (mediations) and reveal possibilities for the durability of making connections in its extension. The analysis is oriented towards the movement of what is transported within the spectrum of a network meanwhile mediators “transform, translate, distort and modify the meaning or the elements they supposedly disseminate” (Latour, 2012:65).

As Latour (2011:777) clarifies, the network notion is used “when the action is supposed to be redistributed, [...] it points to a transformation in the manner that it may be localized and

allocated”. Consequently, “the word network does not only designate things in the world that take place in the shape of a net [...], but it mostly appoints a manner of questioning that learns to list, in the occasion of a process, the unforeseen beings needed in order for any entity to exist” (Latour, 2011:799).

Therefore, the “drawing of a technology is an endless process” (Callon, 2004:3) and everything is continuously transforming “according to the tests it undergoes [...] redefining its properties and audiences” (Akrich, Callon and Latour, 2002:213). Thereby, materiality is constantly engaged to enact reality (Mol, 2002), i.e., it is formed by multiple ontologies (Mol, 2008) as reality itself is collectively produced by material practice being practiced (Law, 2009). Thus,

*enactments* and practices never cease and realities depend on their continuous development — maybe by people, but more frequently (as implied in Latour and Woolgar) by a combination of people, techniques, texts, architectural arrangements and natural phenomena (which are themselves enacted and reenacted). [Law, 2004:56]

As highlighted by Callon (2008:308), the idea of translation is associated with the idea of circulation operating by multiple and dynamics agencying, or, as suggested by Law (2004) and Mol (2002), by the enactment of different sociomaterialities. Thereby, the network cannot be conceived by the ANT as a set of linkages, as a given entity (Latour, 2012). For Latour (2012), sociotechnical aggregates must be explained given that the social is always the result of technical and social engagements from what circulates in the network as new elements take part on the composition of a constantly moving reality.

The social sphere is not a particular realm of reality, but a principle of connections and a focus on what circulates allows for getting to know the dynamics and the socio-material multiplicity that compose it and the effect it produces (Callon, 2008; Latour, 2012). That is why Latour (2001, 2011) suggests the analysis of the “viability of circulation”. At the same time, Callon (2008:309) observes that the central point is “to know what agencyings that exist and are able to do, to think and to say, from the moment of entering such agencyings, not only the human body, but procedures, texts, materialities, techniques, formal and abstract knowledge, etc.”

Therefore, the instrumentation of the public action is understood as an open innovation. As Lavesque (2014:193) notes, innovation as a process represents the social as it occurs, and “there is no difference in nature between technological innovation and social innovation”. Thus, technological determinism and social determinism are interdicted by the principle of generalized symmetry so that social and technical aspects are explained in the same terms (Callon, 1986), and sociomaterialities need to be analyzed in practice (Latour, 1988, 1992, 1994, 1998, 1999).

On the other hand, the irreducibility principle, stating that the effects are not reducible to their causes, evidences that, by translations, there is always a new element through the effects that was not foreseen by the causes, and in such deviations transformation occurs (Latour, 2012). Therefore, “multiple combinations are confronted and totally reversed from the highly complex individual constituents and their multiple and completely reversible aggregates” (Latour, 2011:804).

This leads to infer that the instrumentation of the public action cannot be understood by the choices made a priori, but by the effects generated, that, according to the ANT, are always

temporary. Consequently, some premises suggested by Callon (2004) must be considered in the analysis of the instrumentation. I.e., (1) it is necessary to take into account the broadness and the variety of actors involved in the public action; (2) the new should not be limited to the fulfilling of needs and demands, but oriented towards the “construction of new ways of collective life”; and (3) it is necessary to recognize the importance of hybrid communities in the construction of our future world.

## **2.4 SOCIAL TECHNOLOGIES AND THE INSTRUMENTATION OF PUBLIC ACTION**

Strongly based on inclusive practices and oriented towards the sociotechnical instrumentation of public action, Social Technologies (STs) have received great attention in the past years in Brazil. As emphasized by Rodrigues and Barbieri (2008:1070), STs have lately become a hot topic associated with “products, techniques and replicable methods, developed through the interaction with a community and representing effective solutions for social transformation”. According to Thomas (2009:2), “it is possible to define social technology as a way to draw, develop, implement and manage technology oriented towards social and environmental problem solving, generating social and economic dynamics of sustainable development and social inclusion”.

Considering the understanding of Peyloubet and colleagues (2010), unlike in the supply and demand approaches present in technological innovation, STs are strongly oriented towards collectively constructed knowledge enabling techno-productive solutions to be adequate to the geographical scope from which they emerge and founded on inclusive principles as far as the design and the decision process for their implementation goes. This means that the ST drives the rethinking of the relationship between science and society and could be close to the premises of the mode 2 of research and development, namely, characterized by heterogeneity, problem oriented, emphasizing the implementation context and transcending discipline boundaries (Garcia, 2014:257) and knowledge.

Likewise, Rodrigues and Barbieri (2008:1075) state that STs “imply the construction of collective solutions by those who will benefit from such solutions and act with empowerment”. To Freitas and Segatto (2014:312), STs “break the relationship of technological dependency [...] in order to promote social transformation, respecting the dimensions of sustainable development”, thus becoming “a proposal to rescue the adequate relationship between science, technology and society”.

Dias (2011:56) underscores STs as “interesting technological alternatives, proven to be important tools for the promotion of social inclusion, for the strengthening of democratic practices and also within the scope of long term sustainable development strategies”. When considering the implications of STs over development, Bava (2004:116) highlights that

More than the capacity to execute solutions for specific problems, they may be seen as methods and techniques that propel empowerment processes for collective representations of citizenship in order to enable them to dispute, in the public space, development alternatives that originate from innovative experiences and are oriented by the defense of the interests of the masses and by income distribution.

However, as appointed by Costa and Dias (2013), STs as public policy instruments have to build bridges able to mediate the functioning of the State with the social dynamics of communities. Also, it is important to be attentive for excessive standardization when meaning to replicate, which may divest character, stressing “the challenge of building a public action based on social technology” (Costa and Dias, 2013:234).

The pedagogy of alternation (PA) is an example of public action instrument, recognized as an ST that relates educational interest to the sustainable development of rural families. As a political instrument, PA gathers, simultaneously, a set of techniques, methodologies and social mobilization for the transformation of family agriculture. In Brazil, this ST has evidenced significant advancements for rural education in the last decades, solidifying its usage as an instrument of policy instrumentation for rural education.

#### 2.4.1 PA: AN ST FOR RURAL EDUCATION POLICIES

As an instrument for rural education policies, the pedagogy of alternation ST was recognized in Brazil as “one of the formats of educational organization”, according to article 23 of the Law of Directives and Bases of National Education (LDB), Law nº 9.394/1996. It was also “unanimously recognized by the National Council for Education”, in Ruling CNE/CEB nº 01/2006, under the denomination of Family Centers for the Development through Alternation” (from the Portuguese, Ceffas),<sup>1</sup> in order to issue certification to their students (Nosella, 2012:17). It is possible here to see highlighted the fact that the PA is much more than a new pedagogical method, representing a “new educational system” (Gimonet, 2007) having origins in France, in the beginning of the twentieth century, within the rural environment as specific didactic to dialectically articulate school-based knowledge with experiences outside the school environment” (Nosella, 2012:19).

According to Saviani (2012:29), it refers to “a way of organizing the teaching-learning process alternating the different spaces: family property and school”, following basic principles: (1) family and community responsibility over education; (2) articulation of the knowledge acquired during the work in rural properties and knowledge obtained in the school; and (3) alternation between developmental stages (weekly, bi-weekly) with periods of stay in the school and family life.

In turn, Puig-Calvó (2006) highlights means and ends that guide the actions of the Ceffas worldwide. The *inclusive alternation* is the educational environment that conduces the interaction between school and rural environment, seeking for a methodology that is adequate to such environment and constantly aiming to meet the need for adaptation to the challenges of society, its families and its youth. The *local association* is an organization for the basic inclusion of the families and communities lead by principles and responsible for the management and development of the Ceffas and their projects. The *integral formation* brings a complete view — professional, intellectual, humane, moral

<sup>1</sup> The denomination Ceffa has been adopted since the end of the 1990's within the context of the AIMFR (Puig-Calvó, 2006). In turn, within the Brazilian context, the Ceffas network was adopted in 2005, due to the articulation initiated during the VIII AIMFR Encounter. According to the presentation at the IX AIMFR Congress, the Ceffas adopt the following denominations: Schools for Rural Families, Rural Family Houses and Rural Community Schools, besides those, Ruling CNE/CEB nº 01/2006 includes Settlements Schools, State Technical Schools and the Program for the Development of Young Rural Entrepreneurs in the state of São Paulo and the Centers for the Development of Rural Youth of the southern states.



and spiritual — where people develop as human beings, oriented towards building a life project that necessarily regards its environment. The *local development* is inextricable from the integral formation, once the educational actions of youth and adults become the true actors of development (Puig-Calvó, 2006:64-65).

This ST was originally created by French rural communities between 1935-55 in order to meet the specific educational needs and brought to Brazil in the 1960's. An initiative from the Catholic Church starting at the Basic Ecclesiastic Communities spread the Ceffas around the rural communities in several Brazilian states during the following decades (Bengali and Burghgrave, 2012; Nosella, 2012), occupying voids left by the State in the education of rural populations.

Consequently, this movement around the PA grew attached to the fight for education in rural areas (Queiroz, 2011; Ribeiro, 2008), which inscribed the contents in article 28 of the Law of Directives and Bases:

In offering basic education for rural populations, the educational systems will promote the necessary adaptations to the specificities of rural life and of each geographic area, specially:  
I — curriculum content and methodologies adequate to the real needs and interests of the students in rural areas; II — independent school organization, including the adjustment of the school calendar to the phases of the agricultural cycle and climatic circumstances; III — adjustment to the nature of rural work. [Brazil, 1996]

It has also been attached of the public action in order to inscribe rural education as a public policy based on the decentralized and inclusive propositions of the National Program for the agrarian reform, during the FHC mandate, and to the Wisdoms of the Land program, during the Lula government (Nascimento, 2009). Besides being recognized as an ST by several national and international entities as an instrument for rural education policies.

### 3. METHODOLOGY

The present research was a qualitative case study (Godoy, 2012; Merriam, 2009) in order to investigate “a complex and intriguing situation, and its relevance has justified the understanding effort” (Alves-Mazzoti, 2006:650). First of all, because the pedagogy of alternation (PA) has been nationally and internationally recognized as an ST by several institutions, such as the Social Technology Institute, the Social Technology Network, The Social Technology Bank for the Ministry of Agricultural Development — Brazil, the Social Technology Bank of the Banco do Brasil Foundation, the National Program for Rural Housing and the United Nations Volunteer Program.

Secondly, because the adoption of the PA in the instrumentation of rural public policies is currently being proposed (Brazil, 2007). That is the case in the state of Rondônia, mainly from the beginning of the 2010's, with the approval of the Law nº 2.688/2012 that created the Guaporé Educational School Program, establishing policy that incentives the expansion of the PA as a way of improving and universalizing rural education and promoting sustainable development.

Thereby, the experience in the state of Rondônia was the circumscribed context of investigation that characterizes the case studies as one specific unity for analysis, as indicated by Merriam (2009)

and Stake (1995). It is an intrinsic case (Stake, 1995) oriented towards singularity, because based on what emerged from practice, it attempted to understand situations, answer questions and solve the puzzle (Merriam, 2009). A process analysis of public action instrumentation based on the ANT attempting to understand the relational complexities that involved several actors, spaces and materials shaping state policy for rural education in Rondônia.

In its descriptive character (Godoy, 2010; Stake, 1995), this investigation sought to detail the report of a phenomenon in order to illustrate its complexity considering the several actors involved, which oriented the use of the PA as a policy instrument for rural education in Rondônia. At the same time, translations and controversies in the composition of the network that made the inscription of the PA as an ST possible were tracked in the instrumentation of the policy. Evaluation characteristics (Godoy, 2010) are also present, considering that the empirical data was collected in a careful and systematic way in order to appreciate the expansion process of the PA in Rondônia as a part of the state policy for rural education, without, however, intending to evaluate the performance of the policy or establish generalizations.

As Merriam (2009) and Alves-Mazzoti (2006) clarify, the intrinsic case studies try and analyze the specificities of the case onto itself searching for insight, discoveries and interpretation focused on a description and a holistic explanation, and those were the central premises that oriented the present investigation. Therefore, a process analysis was performed because according to Lascoumes and Le Gales (2007, 2012b), it is more adequate to understanding the instrumentation of public action, having the ANT as a reference to follow this process in order to deeply track its dynamics regarding what is intrinsic to the experience of the state policy for rural education in the state of Rondônia.

Within this perspective, the *collection of data* was based on three sources, as indicated by Godoy (2010) for qualitative case studies: observation, interviews and documents. The *documents* were instrumental to build familiarity with the phenomenon in order to identify and follow the main translations in its shifts and compositions. The *observations* were held based on the participative observation technique, between the months of November 2012 and March 2014, in the Ceffas and other organizations involved with the PA in the state of Rondônia. Totalizing 320 hours of observation, 152 in offices and conference environments and 168 hours in activities of direct contact with the daily application of the ST or discussions regarding its promotion, all properly documented in field notes, with highlighted speech in order to better understand its dynamics. Finally, 12 non-structured interviews allowed for the deepening of what was found in the documents and observations.

The data analysis occurred by identifying and following the translations that took place (Callon, 1986) in the instrumentation process of the investigated public action. For this purpose, the research *corpus* — documents, notes with field observations and interviews — were organized in three divisions: “history of the PA in Rondônia”, “PA details” and “PA expansion actions”, and subsequently categorized.

Following the categorization, a second step of the analysis took place in order to circumscribe the instrumentation process regarding (i) the origins of the PA in Rondônia; and (ii) its replication processes in order to identify “discourse in action” in what is cited by Austin (1990) as “to say something is to do something”, in the sense that the actors have, beyond their own actions, their own theory about the action and that should be regarded as valid.

Finally, in order to identify how the participations, relations and interactions between the actors occurred in the process of the instrumentation of the public action in Rondônia, a triangulation was done, which also allowed to bring closer descriptive and evaluative elements of the analysis, in order to evidence the specificities of the ST instrumentation in the state of Rondônia.

## 4 RESULT ANALYSES

### 4.1 The expansion of the PA in Rondônia

It was December 2010 when the recently elected governor of Rondônia stated the following:

[...] In my trip to Bahia I came across a rural school, in the city of Igrapiúna, called Youth House School. So far, so good, it was a school, as thousand of others in this country. There was something else, however. It was different. Recently, it won an award from de Ministry of Education for excellence in management. It is a rural school, in fulltime regimen, in the foothill of a valley, serving several cities, within the space of a farm, inside the Atlantic Rainforest [...]. Everything clean, a library with 2000 books, sports court, mothers and fathers in the school council, everything definitely very inclusive. And more importantly, both things, the conventional secondary education in the counter shift of professional education — in several fields, even bakery. It is in the style of the Family School and in Rondônia is called Family Rural School (EFA, from the Portuguese). [...] Exactly this one, that I wish to implement for rural education in the state of Rondônia. I saw with my own eyes what I desire. I saw that it is possible. I saw with my very own eyes that everything could be different. I saw it in the countryside of Bahia. [governor, Document]

In January 2011, vested as governor, he instates a task force to begin the implementation of his project. For him,

[...] the model adopted by the Rural Community Schools (ECAs) allows for a considerable contribution to education, performing a transformation of youngsters and adults from rural areas, therefore the need for the adoption of the same model for its implementation in the state rural education system. [governor, Document]

The PA would be the political instrument for the improvement of rural education in the state, and the government, its sponsoring agent. However, this decision from the governor expressed the intention o treat rural education policies in Rondônia according to the terms indicated by Foucault (1983), namely, the State as a disciplinary agent.

Thereby, despite the intentions of the new government, mostly in the shape of the task force created, it was necessary to consider the complexities and controversies that involved the PA as an ST with its instrumentation in Rondônia taking place for over three decades. First, the PA was present in the state since the 1980's decade, entrenched by the practices of the pioneer EFAs in face of the lack of attention to rural education matters from the State. Secondly, the PA practices had acquired different characteristics in each location they had been implemented. Finally, there were other actors such as the Association for the Rural Agrarian Schools of Rondônia (Aefaro), local associations in the learning

centers, the Catholic Church, rural co-operatives and associations, and other social movements, such as the Landless Movement (MST), which formed the hybrid network of actors that became known as the Network of the Family Centers for the Formation through Alternation, or simply Ceffas (form the Portuguese acronym), translating the PA in the state of Rondônia.

That makes evident that the issues of rural education involved the public action of many actors along decades, making possible to identify the relational basis that composed this entanglement that, according to Lascoumes and Le Gales (2012b), has been complexly intertwined over time.

Thus, there were three very different translational movements in the PA. The movement of the EFAs that were fully implemented, namely, the pioneer EFAs — Itapirema, Chico Mendes, Vale do Paraíso e Ezequiel Ramin — respectively locates in the cities of Ji-Paraná, Novo Horizonte d'Oeste, Vale do Paraíso e Cacoal, which were constituted in the first decade of the 1990's. The EFAs that came afterwards from an expansion movement led by Aefaro, between the first decade of the 2000's and the first half of the 2010's, as is the case with the Vale do Guaporé, Jean Pierre Mingan e Antônio Possamai EFAs, respectively located in the cities of Costa Marques (RO), Acrelândia (AC) e Jaru (RO). And the associations that discussed the implementation of the PA in their locations, such as Flor do Amazonas, Manoel Ribeiro, Dom Orione e Iata, respectively located in the cities of Vale do Jamari, Colorado, Buritis e Guajará-Mirim in Rondônia.

In each one of them, the involvement of the state government was very differently. While the pioneer centers were created to oppose State policies for rural education, in the other centers the participation of the government was very specific or even completely absent.

In turn, in April 2011 it was possible to identify the materiality into which such movements converged. It was State Law 2.688 which instituted the “Guaporé School Program for Rural Education”, sanctioned in March 2012, after a decade of controversy and dispute.

The civil society organizations attached to the PA in Rondônia had negotiated their approval with the state government and, as reported by a technician from Aefaro, “[...] this law is a dream resulted form 20 years of hard, relentless work from the directors of Aerofaro” (interview 11). Thereby, the PA was translated as a policy instrument for rural education, and the technical and financial support from the state government to the Ceffas instated. Despite the fact that in the beginning the State was “[...] the figure that ruled and regulated thanks to powerful instruments of cohesion” (Lascoumes and Le Gales, 2012a:38), the PA could be seen as a device revealing of the sociopolitical construction of the rural education in Rondônia, as the ANT analysis attempted to make evident.

However, it was also evident that the attachment of the PA to the Guaporé School Program and Law nº 2.688 were not sufficient to guide the governmental action towards what Lascoumes and Le Gales (2012b) suggest. In the beginning of 2012, while, on the one hand, the approval of the law translated many interests of the actors involved and allowed for the introduction of the government in the PA expansion program in the state, on the other hand, the lack of resources, local problems that needed solving and other specificities hindered the understanding between civil society and the government.

Once the Guaporé School did not bring the results expected, new controversies arose. There was a discussion regarding what should be implemented: professionalizing technical training, formal rural education in the form of secondary schools, or if there should be training courses integrating

professional education and secondary schooling as developed by the pioneer EFAs that worked global education in the secondary and technical levels.

Simultaneously, there were also controversies over how to bring promptness to the recently implemented EFAs, such as the Antonio Possamai, in the city of Jaru, which began its activities without governmental support, as evaluated by several agents connected to the Aefaro, lacking in basic structure for its activities. Besides this case, and in those locations where an association had been created, there was mobilizing by both associations and the Aefaro seeking for effective support from municipal and state government in order for the centers to be built, especially by the Manoel Ribeiro Association.

It became clear that, despite the issuing of the law and the proposition of the program, the state government remained distant from the actions implemented by the civil society organizations in progress. On the other hand, the State Secretariats attempted to make an effort to bring materiality to a version aligned with the governors ideas that sought the implementation of the PA by the direct action of the government in Nazaré, Porto Velho, Abatiana, the central area of the state, and in the city of Nova Brasilândia D'Oeste, in the *Zona da Mata*. Demonstrating that the instrumentation proposed by the state government did not come together with what was understood by the other actors.

Therefore, in the second semester of 2012, a new scenario began to present itself. The participation of the state government was no longer a consensus between the EFAs. There was a concern regarding the influence the State Secretariats, mostly the ones for Agriculture (Seagri) and Education (Seduc) would have over new centers yet to be implemented, which would result in Public EFAs or, at least, strongly influenced by the public power. As revealed in the report of a monitor involved in those discussions “[...] I’ve lost a lot of sleep over this, but I am very scared, like, what is the state going to do with the EFAs, if it stays [if managed by the state], if it has the freedom to do what it wants [...]” (interview 8). Or, as someone associated with the Aefaro observed: “[...] because I’m sure they [the state government, Seduc and Seagri] do not have the knowledge of the PA so to speak, [...] they have a methodology, they have their own system” (interview 11).

Those engaged in making the instrumentation of the PA viable by Law nº 2.688/2012 were faced with a movement from the government that attempted to incorporate new elements to its composition. So far, the PA was known and understood by all as an initiative created and managed by agricultural families; suddenly, it became clear that the responsibility over implementing the new EFAs would be granted to public entities. That instilled doubt into the communal and inclusive aspects in the development of this ST, evidencing the resistance of the actors from the civil society organizations against the direct participation of the state government in their implementation, as was the case in the EFAs Dom Orione and Manoel Ribeiro. Thus, without clarity regarding the participation and responsibility of the families and local associations in the process of implementation of the Ceffas, doubt was created regarding the future of the PA in the state, once the elements that characterized its original implementation were destabilized, while at the same time it took the shape of a new materiality.

The properties and the public of this PA began, therefore, to be redefined, as Akrich, Callon and Latour (2002) indicate. In fact, the PA itself was destabilized as an ST. The state government brought

to its composition new elements that, according to the other organizations involved, did not “fit” into the existing ST. This highlights what is indicated by Las (2004) that heterogenic materiality cannot be translated into one single narrative. Or, as Mol (2008) proposes, reality is multiple (not plural), and it is always historically, culturally and materially located since “[...] they are different versions of the object, versions that enable it to enact”.

Within this context, depositions, at the end of 2012, state regarding the impossibility of public responsibility, once “now inside this macro idea, many people speak of how the successful experience they know is the EFA, some talk of public EFAs, but without much knowledge on the subject” (interview 7). Others argue in favor that the centers remained under responsibility of the state government, saying that “[...] yes, they will be governmental schools, but with something from the methodology of the Pedagogy of Alternation and such” (interview 11).

The relational dynamic that enacted the PA in Rondônia, besides questioning its implementation regarding the managerial responsibility over other centers and types of courses, also began to question the routines adopted by the formative itinerary of that ST. However, governmental representatives understood that those questionings would only be legal and structural obstacles. The state secretary for Agriculture, for example, understood that, once such matters were solved, it would be easy to expand the PA and, on his opinion, the use of agricultural fair sites would be a quick alternative for the implementation of the educational centers and the replication of the PA. This evidences the intention for the prevalence of governmental technical rationale that is unaware of what is highlighted by Lascoumes and Le Gales (2012b) that the purposes of the government are always intertwined in the complexity of the public action, and should be broadly debated, considering the multiplicity of actors involved and the diversity attributed to the instrumentation.

On the other hand, some actors associated to the Aefaro and the pioneer Ceffas, and the legal associations connected to the Fetagro supported that the lack of knowledge over the “methodology instruments of the PA” by the state representatives hindered the expansion, because “[...] the secretary from the Seagri, the guy has no time [...] and the Secretary for Education has no time either, because he is a journalist, not even the assistant secretary understands education, because she used to manage finances” (interview 7).

[...] now we basically have two [three] different parameters, we have those that have long kicked this ball but it won't leave here, we have another one who is kicking, kicking and the ball is moving very slowly, but it is halfway through, and we have those who think they have kicked it and the ball is all the way over there but... their ball is already over there, drawn, formatted and the ball we want to use is this one, right, with no reality study, not a purpose, without a consult of what the communities, the society wants, the ball is all the way over there and we want this one over here [...]. [interview 10]

Thereby, the collective effort that translated the instrumentation of the PA to constitute the state policy for rural education in Rondônia by Law nº 2.688 was not able to enact the dynamics from civil society organizations that created the Ceffa network in Rondônia, as the functioning ways of state

government, seeking to expand this ST. When crediting the instrumentation of the public action by instruments such as the law and, foremost, the Guaporé School Program as a model for rural education, it incurred in the limitations pointed by Costa and Dias (2013) for the adoption of STs in public policies.

An excessive standardizing, therefore, took place, not lending enough space for the ST to translate the dynamics of the rural communities where the proposition of the PA appeared as an alternative for rural education in Rondônia along with government practices. On the other hand, it was not possible for the state government of Rondônia to operate within what is typical of the public policies cycle either, meaning, it was not possible to embody the action of the social movements when inserting new topics to the public agenda with subsequent governmental dominance, especially in the stage of policy implementation. The drawing of the connections and their extensions, as dealt by Latour (2011, 2012), took new shapes and three different ideas for the implementation of the PA were enacted in the implementation of state policy for rural education in Rondônia.

The idea from the state government, through its Secretariats, was indicating that centers needed to be built in an “alternation system”, allowing the students to spend periods at school and periods at home, allowing for the rotation of groups, which was the governmental interpretation of the PA. Another one, defined by the associations of rural producers, union leaderships and social organizations, that defended a model as a new organizational way to be adopted by the state government and expanded through its replication in the entire state according to a traditional concept of instrument in the terms of Hood (2006, 2007). Finally, the one from Aefaro and the pioneer Ceffas, that demanded a specific mobilization by the families to be contemplated in each location, defending the implementation of a reduced number of centers to ensure the application of the “methodology instruments” necessary to the achievement of its purposes, without disfiguring the routines originally defined by the formative itinerary of the PA.

There were different representations to enable the expansion of the PA and the institutionalization of the state rural education policy. Without implying, however, translations that would enable the instrumentation of the public action under a new performative dynamic of the interaction between government and civil society. Therefore, by the middle of 2013, the difficulties advancing the PA expansions process in Rondônia became evident, regarding both the creation of new EFA associations with the implementation of new centers and also the definition of pedagogical projects and authorization by the State Education Council.

The partnerships surrounding the approval of Law nº 2.688/2012 that first gave support to the sociotechnical instrumentation were dissolved. As highlighted by a state government technician, “[...] in theory many people say many things, you know! Because we need to do third, and we will do that, but... my fear is... [...] that the leaderships don’t understand the bureaucratic processes [building new centers, forming associations and applying the PA]” (interview 11).

Therefore, in the beginning of 2014, civil society organizations, such as the Fetagro, the MST and the MPA, were acting exclusively in the realm of the State Forum, discussing general guidelines for rural education without specifically talking about the PA. The Aefaro started to incipiently participate in the technical-pedagogical discussions with Seduc and Seagri. The state government, through its secretariats, decreased its visits to the inner areas of the state and the meetings with social organizations and Aefaro no longer took place in a regular basis. In this regard, Law nº 2.688/2012 showed inefficiency considering that specific alliances had not been formed and there was no onlending of

scholarships to the EFAs, which led the Aerofaro, congressmen and civil society organizations to oppose to the initiatives of the expansion of the PA by the state government.

It is necessary, however, to better understand the apparent lack of success in the implementation of the state policy for rural education in Rondônia. For this purpose, it is necessary to analyze what was materialized beyond the models and representations of the program, identifying, according to the suggestions of Mol (2008), the different materialities translated in the instrumentation process of the public action in what was enacted by the ST and the other actors.

#### **4.2 MULTIPLE MATERIALITIES OF THE PA IN RONDÔNIA**

In this section, eight narratives that describe the materiality identified in the process of the PA as an ST constituting the Rondônia state policy for rural education are presented. Different sociotechnical aggregates were identified resulting from different technical and social engagements in their composition, as what Latour indicates (2012), revealing the variety of the instrumentation process of public action in the case analyzed, as follows.

Attached to the expansion process of the PA in the state of Rondônia promoted by social movements and civil society organizations in the first decade of the 2000's, the EFA Antônio Possami, in Jaru, was only inaugurated in February 2013, with the expectation to obtain governmental resources to meet the infrastructural demands. It is seen as the one that puts the PA into practice in all its routines and principles, closer to the practices spread by Aefaro. Despite Public Law nº 2.688/2012, article 4, determines "financial funding for the managerial associations [...] to provide maintenance and operation", this Ceffa has been operating, however, basically supported by the families and the rural labor union, without the aid of governmental support.

The Iata Educational Center, in the city of Guajará-Mirim, has been dealing with its deployment for over a decade. The official act signed by the Iata Association for Community Development and Community Action asking Aefaro for a feasibility study dates from 2005. However, as the actors associated with Aefaro report, the lack of articulation from local organizations and lack of mobilization from the families did not enable its completion. Thereby, what was implemented was something "similar to a PA" in a public school, as reported by a Rondônia state government technician. It is a course on agrarian ecology created from changes to the school curriculum, adopting a training that takes place in the alternation between school and home learning experiences.

Over a decade ago, civil society organizations and the municipal government of Vale do Jari started a discussion over the implementation of a PA to meet the educational needs in this rural area. However, little has been accomplished. More recently, with the support of Aefaro and of the state government, the first providing technical pedagogical support and the latter providing financial resources, it was possible, by the end of 2011, to make viable the creation of the EFA Dom Orione Association and to implement a technical secondary school in the city of Buritis. Yet, local organizations have been facing difficulties with the articulation necessary to follow with the implementation process.

With the EFA Manoel Ribeiro Association, in the city of Colorado, the mobilization was closer time wise to the state government proposed expansion. Located in a region of intense agrarian conflict, the PA inserted itself inside the scope of the fights of local actors that were mobilized in the fight against



landlordism, rural exodus decrease and the extinction of family properties and settlements. In this context, the PA was inserted guided by the understanding from the social movements that education is a weapon, a form of resistance and a way of combat against the agribusiness.

The EFA Flor do Amazonas was legally created in 2010 in the city of Candeias do Jamari. But the implementation of its educational center became effective in 2011, when the state government allocated compensatory resources that are collected from the joint venture that is building the Santo Antônio Power Plant inside the hydroelectric complex of the Rio Madeira. This implementation was, therefore, influenced by the direct action of the state government over family organization and community support. However, overlooking the process, there are doubts from local leadership regarding the maintenance of the center after the completion of the work in the power plant, and doubts regarding what actually constitutes the PA in that region.

The Community of Nazaré, formed by riverside communities and other traditional populations from the Baixo Madeira, belongs to the municipality of Porto Velho. Their PA implementation proposal looked very promising due to their agrarian and fishery resources, to the demand for local technical training, and to the existence of a school structure where the center could function. Despite that, the strong mobilization from government actors stumbled upon its own contradictions. Therefore, the political differences between the state secretariat representatives led some to become contrary to the expansion process of the EFAs, arguing they were PT (National Worker party's) schools. As a result, a "normal state school" was implemented, without the adoption of the PA, as reported during the research.

In 2013, the proposal to apply the PA in the city of Pimenta Bueno, located in the border area between the *Cone Sul*, the *Zona da Mata* and the Central Area of the state of Rondônia was a state government initiative. There was the Abaitará Educational Center, founded in 1978, which worked as an agricultural technical school until 1999, when its structure went to the municipal administration. Since that year, the state public school began to offer an agrarian technical school in an alternation regime, managed by a public-private partnership. However, as stressed by a government technician, those in charge "have no idea of how to in fact execute the task" (interview 16), at the same time that Aefaro does not recognize it, as pointed by another representative: "it is something else over there, not a PA" (interview 1).

Finally, in the city of Nova Brasilândia D'Oeste, there was a demand from the municipal administration with the state government in order to implement a center. Nevertheless, a greater involvement from other cities did not occur, let alone social organizations, the Catholic Church or even Aefaro. Besides that, despite the state government welcoming the claim, the request was later refused by the Education and Agriculture Secretariat due to lack of technical conditions and resources.

Analyzing those eight experiences, the first ascertained aspect is the one indicated by Lascoumes and Le Gales (2007, 2012b) that the instruments are inseparable from the use that the actors give them, acquiring multiple characteristics in the process of the public action over different spaces, which implies a diversity in the instrumentation of public action. Thereby, it becomes evident that the analysis of the instrumentation must be able to follow this dynamic in the combination of heterogenic factors in order to better understand the process and the effects of intertwined and diverse actions, as also suggested by Lascoumes and Le Gales (2007, 2012b).

It was also possible to observe throughout those eight experiences that the PA educational system indicated by Gimonet (2007) and Puig-Calvó (2006) was not adopted by all locations in its entirety, with implementation process marked by a diverse sociotechnical composition in which, some more than others, fostered the exercise of autonomy by the actors in order to search for alternatives to their demands in rural education. At this point, it is possible to identify that those experiences betrayed (one of the sense attributed to the translation phenomenon) the establishment of the PA's original routine, enacting them in a very particular manner. Such situations make evident that this ST, as suggested by Callon (2004, 2008), Latour (2011, 2012), Law (2004, 2009) and Mol (2002, 2008), when found and located, namely, when redistributed, had its properties redefined by different and multiple agencyings, highlighting its open character and its alterity.

Chart 1 presents a summary of the elements that brought materiality to the instrumentation of the public action in the expansion process of the PA and the implementation of the Rondônia state policy for rural education in each location.

**CHART 1 MATERIALITY OF THE INSTRUMENTATION OF THE PA IN RONDÔNIA**

Unit/Location	Elements present in the instrumentation of the local public action
EFA Dom Antônio Possamai (Central Area)	<ul style="list-style-type: none"> <li>• Main actors: CPT; Fetagro e STTRs; Aefaro; local churches; rural associations;</li> <li>• Mobilization for the implementation of this PA since the founding of the pioneering EFAs in the state;</li> <li>• Long running PA implementation project;</li> <li>• Intense family participation;</li> <li>• Little state and municipal government participation;</li> <li>• Currently functioning EFA.</li> </ul>
Iata Educational Center (Vale do Mamoré)	<ul style="list-style-type: none"> <li>• Main actors: state government; municipal government; Aefaro; Emater;</li> <li>• Mobilization by the Association and local government for over a decade;</li> <li>• Little mobilization by social organizations recently;</li> <li>• Little predominance of family agriculture;</li> <li>• Recent impulse for implementation due to the existence of a vacant Hotel School;</li> <li>• Frequent participation of the state government;</li> <li>• Lack of creation of a legal association by the families;</li> <li>• Implementation of “something similar to a PA”.</li> </ul>
Dom Orione EFA Association (Vale do Jamari)	<ul style="list-style-type: none"> <li>• Main actors: STTRs; Aefaro; municipal government; state government;</li> <li>• Joint area between environment conservation and agricultural production;</li> <li>• Intense participation by the Catholic Church and city government;</li> <li>• Little participation by state government, despite its influence in the creation of the EFA association (possibility of resources for infrastructure);</li> <li>• Unawareness about the PA by local leaderships;</li> <li>• Legally constituted association.</li> </ul>

*Continue*

Unit/Location	Elements present in the instrumentation of the local public action
EFA Manoel Ribeiro (Cone Sul)	<ul style="list-style-type: none"> <li>• Main actors: Fetagro and STTRs; Aefaro; CPT; local churches; Emater; rural associations; municipal government;</li> <li>• Emerging and intense mobilization towards the implementation of the PA in the area</li> <li>• Area of intense agrarian conflicts;</li> <li>• Intense participation of the STTRs;</li> <li>• Greater participation by the municipal government than by the state government;</li> <li>• Legally constituted association.</li> </ul>
EFA Flor do Amazonas (North Area)	<ul style="list-style-type: none"> <li>• Main actors: rural associations; Aefaro; state government;</li> <li>• Creation of settlements as a relevant aspect in the region;</li> <li>• Despite a legally constituted association, the compensatory resources from the Santo Antônio Power Plant mobilized the local association</li> <li>• Participation from state government;</li> <li>• Doubts in the conduction of the PA;</li> <li>• Legally constituted association.</li> </ul>
Nazaré Community (Vale do Mamoré)	<ul style="list-style-type: none"> <li>• Main actors: state government; Emater; Association of Residents; riverside communities;</li> <li>• Presence of a state school in final stage of construction;</li> <li>• Absence of the local community in the main initiatives for the de implementation of the PA;</li> <li>• Intense presence of the state government through the Seagri;</li> <li>• A PA has not yet been implemented.</li> </ul>
Abaitará Technical Center (Central Area)	<ul style="list-style-type: none"> <li>• Main actors: state government;</li> <li>• Discussion over implementing the PA in an old technical school;</li> <li>• Opposition from Aefaro and social organizations to the implementation of the PA in such school;</li> <li>• Implementation of the PA (not recognized by the Aefaro).</li> </ul>
Demand from Nova Brasilândia D' Oeste (Zona da Mata)	<ul style="list-style-type: none"> <li>• Main actors: Municipal government of Nova Brasilândia D'Oeste;</li> <li>• Demand from the municipality for the implementation of the PA;</li> <li>• Discussions with the state government;</li> <li>• Discussions were not continued and the PA was not implemented.</li> </ul>

Source: Elaborated by the authors.

Analyzing the narratives over each location and over the summary board, it is possible to determine that none of the three representations previously signaled translated its content. In this regard, what was proposed by the Aefaro, concerning the replication of the methodology and the routines of the PA originally developed by the rural communities, was not enacted, nor the models suggested by the state government and its alternation system or by social movements, such as the Fetagro, MST, MPA, among others, were adopted in the State Forum for Rural Education.

What happened was that the PA as an ST for the instrumentation of the public action multiplied in those locations, confirming what is indicated by Mol (2008:74) that “the interference of several political tensions is such that each time something seems to be at stake [...] many other questions and realities are involved [...]”.

Broadly, the PA did not produce exclusive mediations, nor did it constitute a single mediator able to transport a cause, as discussed by Latour (2012). The PA was not enacted as an ST producing specific realities and, as one of the interviews suggests, it followed a specific and situated dynamic:

[...] I've Always imagined this [the PA] as a ball, for example, a ball is easy for you to spin, and weather you spin form the inside or form outside, only inside this ball what I've always seen, and I've put this in other places, is that we have several smaller balls, right, so what I see first is that instead of going inside this ball, you have 10 balls or more that are instruments. We can start by the ball we like the most, in our reality, and then instead of kicking 10 balls and getting tired quickly, or kicking 10 balls to no specific direction, if we divide it into different steps, right... at first we kick one ball, with some more time we start to kick 2 balls, with some more time, 3 balls, right, maybe we would have more significant advancements than if we try to kick all the 10 balls at the same time. [...] It is easier t conduct if you start by kicking one ball, so you can check if it is in the right path that you could control, then you go get another one which you still do not control, this coming from what, from the reality in which each school is inserted, right, I've always imagined this, how will we start, if we start with everything at once, the RN [reality notebook], the AN [alternation notebook], mentoring, evaluation, qualitative evaluation, practical activities, because I think this would be too much, it's too broad and very complex, right, for to it to get a team, right, that never worked with the process of the PA and want it to do everything, I think this is where we make many mistakes, right, someone who never saw that, and you want him to work with everything at once, right, it would be the same as a training session, for a soccer team, you grab many balls, each group is kicking one, but what is the final goal after that? The big group around one, only one, so I've always thought that after we control this one, we go to another one, then the third and all of a sudden here [...] the ball we are kicking here is not the same one that Amazonas is going to be kicking, but Amazonas has [...] the capacity to create another ball that will adjust to their field, I've always thought, for example, the process of the PA this way, right, and sometimes what happens is that when we create a school we want to kick all the balls at the same time. [interview 10]

When analyzing the case in Rondônia, it is possible to comprehend that the instrumentation of the public action requires that the state does not adopt a posture oriented towards rational choice, understanding that it is intrinsic to the dynamics that noticeably occur in the articulation of several actors, which, according to Lascoumes and Le Gales (2012a), favors its performative impact. Which implies that, through the process of instrumentation of the public action, the State needs to reinterpret its action basis beyond a technical instrumentation oriented towards performance and political gain in order to effectively embody the participation of all involved. Furthermore, it is important to note that the instruments cannot be adopted as black boxes in order to be simply replicated.

## 5. FINAL CONSIDERATIONS

The PA as an ST for the sociotechnical instrumentation of the public action in the state of Rondônia's rural education, starting in 2012, took different shapes from the ones transposed by the end of the 1980's decade in Rondônia, creating the pioneer Ceffas and the possibility to institute Law nº 2.688/2012.

Therefore, the translation movement involved the EFA Associations, the rural trade unions, Fetagro, Aefaro and other civil society organizations in order to implement the PA in Rondônia, inscribing it as an alternative for rural education, but it did not find circulation viability when associated with the state government for expansion.

For that matter, it became explicit that the state government preferred to dominate the means for exerting control over society, as highlighted by Lascoumes and Le Gales (2007). However, the PA as an ST still produced effects independently from governmental purposes through new translations. That being the case because the PA as an ST is an actor made viable through social mobilization, holding within itself the possibility of social transformation that is always located inside the relational basis available in its enactment.

In this case study it was possible to verify what is indicated by Callon (2008), namely, how the displacements occur, what circulated and was transported between the spots, enabling the production of a new socio-material reality or not. It has also been possible, as suggested by Lascoumes and Le Gales (2007), to denaturalize the ST as a tool. Besides questioning its replication elsewhere without taking into consideration the movements that allow for its collective construction, in accordance with Costa and Dias (2013) who state that there still is much to be done in order to implement an instrumentation of public action based on social technologies.

Finally, the process analysis of the instruments, evidenced in this case by the PA as an ST, demonstrates how different performativities of the public action may unfold and locate themselves into different strategies for the maximization of territorial configurations. This indicates the need for the State to understand those inclusive dynamics (Callon, 2004) inherent to each instrument, recognizing the broad and hybrid character that different actors may perform from relationship basis that favor the renewal of public governance under multiple realities, instead of framing them within a “regime of truth” (Foucault, 1983) from what pretends to be disciplinary in its name, as has usually been the norm for governmental instrumentations.

## REFERENCES

- ALVES-MAZZOTTI, Alda Judith. Usos e abusos dos estudos de caso. *Cadernos de Pesquisa*, v. 36, n. 29, p. 637-651, 2006.
- ANDRADE, Jackeline A. Redes de atores: uma nova forma de gestão das políticas públicas no Brasil? *Gestão & Regionalidade*, n. 64, p. 52-66, 2006.
- AKRICH, Madeleine; CALLON, Michel; LATOUR, Bruno. The key to success in innovation. *International Journal of Innovation Management*, v. 6, n. 2, p. 187-225, 2002.
- AUSTIN, John L. *Quando o dizer é fazer: palavras e ação*. Porto Alegre: Artes Médicas, 1990.
- BAGATTOLLI, Carolina; JESUS, Vanessa B. de. Educação contextualizada e tecnologia social: a experiência da Casa Familiar Rural de Igrapiúna (BA). In: COSTA, Adriano B. (Org.). *Tecnologia social & políticas públicas*. São Paulo: Instituto Pólis; Banco do Brasil, 2013. p. 17-32.
- BAVA, Silvio C. Tecnologia social e desenvolvimento local. In: FUNDAÇÃO BANCO DO BRASIL (Org.). *Tecnologia social: uma estratégia para o desenvolvimento*. Rio de Janeiro: FBB, 2004. p. 103-116.
- BEGNAMI, João B.; BURGHGRAVE, Thierry. Construção da pedagogia da alternância no Brasil: desafios e perspectivas. In: NOSELLA, Paolo. *As origens da pedagogia de alternância no Brasil*. Vitória: Edufes, 2012. p. 251-274.
- BRASIL. *Educação do campo: diferenças mudando paradigmas*. Brasília: Ministério da Educação, 2007.
- BRASIL. *Lei de diretrizes e bases da educação*. Brasília: Senado Federal, 1996.
- CALLON, Michel. Dos estudos de laboratório aos estudos de coletivos heterogêneos, passando pelos gerenciamentos econômicos. *Sociologias*, v. 10, n. 19, p. 302-321, 2008.
- CALLON, Michel. Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay. In: LAW, John. *Power, action and belief: a new sociology of knowledge?* Londres: Routledge, 1986. p. 196-223.
- CALLON, Michel. The role of hybrid communities and socio-technical arrangements in the participatory design. *Journal of the Center for Information Studies*, v. 5, n. 3, p. 3-10, 2004.
- COSTA, Adriano B.; DIAS, Rafael B. Políticas públicas e tecnologia social: algumas lições das experiências em desenvolvimento no Brasil. In: COSTA, Adriano B. (Org.). *Tecnologia social e políticas públicas*. São Paulo: Instituto Polís; Fundação Banco do Brasil; Gapi-Unicamp, 2013. p. 223-245.
- DIAS, Rafael B. Tecnologias sociais e políticas públicas: lições de experiências internacionais ligadas à água. *Revista Inc. Soc.*, v. 4, n. 2, p. 56-66, 2011.
- FARAH, Marta F. S. Administração pública e políticas públicas. *Rev. Adm. Pública*, v. 45, n. 3, p. 813-836, May/June 2011.
- FOUCAULT, Michel. *Vigiar e punir*. 2. ed. Petrópolis: Vozes, 1983.
- FREITAS, Cesar C. G.; SEGATTO, Andrea P. Ciência, tecnologia e sociedade pelo olhar da tecnologia social: um estudo a partir da teoria crítica da tecnologia. *Cad. EBAPE.BR*, v. 12, n. 2, p. 302-320, 2014.
- GARCIA, Sylvia G. A tecnologia social como alternativa para a reorientação da economia. *Estudos Avançados*, v. 28, n. 82, p. 251-275, 2014.
- GIMONET, Jean-Claude. *Praticar e compreender a pedagogia da alternância dos Ceffas*. Petrópolis: Vozes, 2007.
- GODOY, Alzira S. O estudo de caso qualitativo. In: GODOI, Christiane K.; BANDEIRA-DE-MELLO, Rodrigo; SILVA, Anielson B. (Org.). *Pesquisa qualitativa em estudos organizacionais: paradigmas, estratégias e métodos*. 2. ed. São Paulo: Saraiva, 2010. p. 115-146.
- GRAU-SOLÉS, Marc; ÍÑIGUEZ-RUEDA, Lupicinio; SUBIRATS, Joan. **¿Cómo gobernar la complejidad?** Invitación a una gobernanza urbana híbrida y relacional. *Athenea Digital*, v. 11, n. 1, p. 63-84, 2011.
- HOOD, Christopher. Intellectual obsolescence and intellectual makeovers: reflections on the tools of government after two decades. *Governance*, v. 20, n. 1, p. 127-144, 2007.
- HOOD, Christopher. *The tools of government: public policy and politics*. Londres: The Macmillan Press, 1983.
- HOOD, Christopher. The tools of government in the information age. In: MORAN, Michael; REIN, Martin; GOODIN, Robert E. *The Oxford handbook of public policy*. Oxford: Oxford University Press, 2006. p. 469-481.

- LASCOURMES, Pierre; LE GALES, Patrick. A ação pública abordada pelos seus instrumentos. *Pós Ci. Soc.*, v. 9, n. 18, p. 19-44, July/Dec. 2012a.
- LASCOURMES, Pierre; LE GALES, Patrick. Introduction: understanding public policy through its instruments. *Governance*, v. 20, n. 1, p. 1-21, 2007.
- LASCOURMES, Pierre; LE GALES, Patrick. *Sociologia da ação pública*. Maceió: Editora da Ufal, 2012b.
- LASCOURMES, Pierre; SIMARD, Louis. L'action publique au prisme de ses instruments: introduction. *Revue Française de Science Politique*, v. 61, n. 1, p. 5-22, 2011.
- LASSWELL, Harold. The policy orientation. In: LERNER, Daniel; LASSWELL, Harold (Ed.). *The policy science*. Stanford: Stanford University Press, 1951. p. 102-120.
- LATOUR, Bruno. *A esperança de Pandora: ensaios sobre a realidade dos estudos científicos*. São Paulo: Edusc, 2001.
- LATOUR, Bruno. De la mediación técnica: filosofía, sociología, genealogía. In: DORMÈNECH, Miquel; TIRADO, Francisco Javier. *Sociología simétrica: ensayos sobre ciencia, tecnología y sociedad*. Barcelona: Gedisa Editorial, 1998. p. 109-142.
- LATOUR, Bruno. Networks, societies, spheres: reflections of an actor-network theorist. *Internacional Journal of Communication*, n. 5, p. 796-810, 2011.
- LATOUR, Bruno. On recalling ANT. In: LAW, John; HASSARD, John (Ed.). *Actor-network theory and after*. Oxford: Blackwell Publisher, 1999.
- LATOUR, Bruno. Pragmatogonies: a mythical account of how humans and nonhumans swap properties. *American Behavioral Scientist*, v. 37, n. 6, p. 791-808, 1994.
- LATOUR, Bruno. *Reagregando o social: uma introdução à teoria do ator-rede*. Salvador: Edufba, 2012.
- LATOUR, Bruno. *The pasteurization of France*. EUA: Harvard University Press, 1988.
- LATOUR, Bruno. Where are the missing masses? The sociology of a few mundane artifacts. In: BIKER, Wiebe B.; LAW, John (Ed.). *Shaping technology/building society*. Cambridge: MIT Press, 1992. p. 225-258.
- LAW, John. Actor network theory and material semiotics. In: TURNER, Bryan S. *The new Blackwell companion to social theory*. Mandel, MA: Blackwell Publishing, 2009. p. 141-158.
- LAW, John. *After-method: mess in social science research*. Londres: Routledge Taylor & Francis Group, 2004.
- LAW, John. Notes on theory of the actor-network: ordering, strategy and heterogeneity. *Systems Practices*, v. 5, n. 4, p. 379-393, 1992.
- LAW, John; SINGLETON, Vicky. Performing technology's stories: on social constructivism, Performance, and performativity. *Technology and Culture*, Baltimore, v. 41, n. 4, p. 765-775, Oct. 2000.
- LEVESQUE, Benoit. As inovações sociais podem contribuir para transformações, mas isso não é tão evidente. *Ciências em Debate*, v. 1, n. 2, p. 179-199, 2014.
- LINDER, Stephen; PETERS, Guy. Instrumentos de gobierno: percepciones y contextos. *Gestión y Políticas Públicas*, v. 2, n. 1, p. 5-34, 1989.
- MERRIAM, Sharan B. *Qualitative research: a guide to design and implementation*. San Francisco, CA: John Wiley and Sons Inc., 2009.
- MICHAEL, Mike. On making data social: heterogeneity in sociological practice. *Qualitative Research*, v. 4, n. 1, p. 5-23, 2004.
- MOL, Anne-Marie. Política ontológica: algumas ideias e várias perguntas. In: NUNES, João Arriscado; ROQUE, Ricardo. *Objectos impuros: experiências em estudos sobre a ciência*. Porto: Afrontamento, 2008. p. 63-78.
- MOL, Anne-Marie. *The body multiple: ontology in medical practice*. Durham: Duke University Press, 2002.
- NASCIMENTO, Claudemiro. Políticas 'públicas' e educação no campo: em busca da cidadania possível. *Travessias*, n. 7, p. 178-198, 2009.
- NOSELLA, Paolo. *As origens da pedagogia de alter-nância no Brasil*. Vitória: Edufes, 2012.
- OLIVEIRA, Ariovaldo U. A longa marcha do campesinato brasileiro: movimentos sociais, conflitos e reforma agrária. *Estudos Avançados*, São Paulo, v. 15, n. 43, p. 185-206, 2001.
- PAL, Leslie A. *Beyond policy analysis*. 4. ed. Toronto: Nelson Press, 2010.

PEYLOUBET, Paula et al. Desarrollo local a partir del uso de tecnología social: un enfoque alternativo. *Cuadernos Urbano Espacio, Cultura, Sociedad*, v. 9, n. 9, p. 170-191, 2010.

PUIG-CALVÓ, Pedro. *Los centros de formación por alternancia: desarrollo de las personas y de su medio*. Thesis (doctoral) — Departamento de Ciências da Educação, Universitat Internacional de Catalunya, Barcelona, 2006.

QUEIROZ, João B. P. A educação do campo no Brasil e a construção das escolas do campo. *Revista Nera*, v. 14, n. 18, p. 37-46, 2011.

RIBEIRO, Marlene. Pedagogia da alternância na educação rural/do campo: projetos em disputa. *Educação e Pesquisa*, v. 34, n. 1, p. 27-45, 2008.

RODRIGUES, Ivete; BARBIERI, José Carlos. A emergência da tecnologia social: revisitando o mo-

vimento da tecnologia apropriada como estratégia de desenvolvimento sustentável. *Rev. Adm. Pública*, v. 42, n. 6, p. 1069-1094, Nov./Dec. 2008.

SALAMON, Lester M. The new governance and the tools of public action: an introduction. *Fordham Urban Law Journal*, v. 28, n. 5, p. 1611-1674, 2000.

SAVIANI, Demerval. Prefácio. In: NOSELLA, Paolo. *As origens da pedagogia de alternância no Brasil*. Vitória: Edufes, 2012. p. 22-33.

STAKE, Richard. *The art of case research*. Thousand Oaks: Sage Publications, 1995.

THOMAS, Héran. *De las tecnologías apropiadas a las tecnologías sociales: conceptos/estrategias/diseños/acciones*. In: SEMINARIO IBERO-AMERICANO DE CIENCIA Y TECNOLOGIA DEL CENTRO EXPERIMENTAL DE LA VIVENCIA DE LA ECONOMÍA, IV, 2009, Córdoba.

### **Jackeline Amantino de Andrade**

Has a PhD in Administration and is an Associate Professor at the Universidade Federal de Pernambuco. E-mail: jackeline.amantino@gmail.com.

### **José de Arimatéia Dias Valadão**

Has a PhD in Administration and is an Adjunct Professor at the Universidade Federal de Lavras. E-mail: arimateiavaladao@hotmail.com.