

**IMPROVISATION IN ACADEMIC MANAGEMENT: A CASE  
STUDY IN A BRAZILIAN PUBLIC UNIVERSITY****Arthur Silva**

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## Abstract

In this study, manifestations of improvisation and its relevance to academic management in a public university were analyzed. The study focused on managerial practices carried out by academic program coordinators. This is a qualitative case study that was based on concepts related to decision making in public administration, university management and organizational improvisation. Data were collected through participant observation, ethnographic interviews and documents, which were analyzed through document and narrative analysis. The results showed that the predominant types of improvisation were ad-hoc and covert, with the latter being due to the strong influence of informality. Other characteristics such as pressure to meet deadlines, experience and creativity were key factors in the improvisational practices identified. Conclusions revealed that improvisational practices were found in the managerial practices of academic coordinators, contributing to not only to solve unexpected problems but also to improve the academic managerial performance.

**Keywords:** Organizational Improvisation, Academic Management, Public university.

## 1 Introduction

The actions of managers in organizations differ greatly from the classic assumption of the managerial function of planning, organizing, coordinating and controlling (Mintzberg, 1971). In reality, the work of a manager is constituted by tireless and continuous action, represented by brevity, discontinuity and variety of daily activities. This characteristic can also be considered more representative of public institutions whose bureaucratic management, rather than helping to control, often makes processes slower and even ineffective.

Contributions that stem from New Public Management (NPM) have sought to make the management model of these organizations more effective, fluid and interactive (Carvalho and Santiago, 2016; Jeanes, Loacker and Śliwa, 2018; Denhardt et al., 2019), contrary to the instrumental rationality of the mechanistic model (Araújo, 2010; Denhardt et al., 2019). However, this reality does not yet represent the reality of most Brazilian public institutions because it is necessary to overcome characteristics inherent to the public context, such as different understandings regarding priorities between areas and levels of government, budget constraints, rigid processes and discontinuous management (Heidemann, 2009; Bryson; Crosby; Bloomberg, 2014) and internal politics (Baldrige and Deal, 1983). This is the case of public universities which, in addition to the aforementioned characteristics, are also known for their complexity, dynamic nature and plurality (Etzioni, 1964), with co-existing multiple power structures and processes (Baldrige and Deal, 1983). Their components also have a high level of specialization and professional autonomy (Mintzberg, 1979). These characteristics make universities a particular type of organization and make their management a challenge.

Addressing higher education institutions (HEI) means recognizing the importance of their mission in society (Ramirez; Vrangbaek; Pinheiro, 2016) as well their management, particularly their members' micro behaviors and micro actions and their impact at the macro level (Bastedo, 2012; Meyer; Pascuci; Meyer, 2018). This is the case of academic management, which involves a set of decisions and practices related to the core of this institutions: teaching, research and service. And how such activities impact different groups, ranging from students and professors to entire courses (Scaglione; Meyer; Mamédo, 2019; Meyer and Bueno, 2019). Academic management includes decisions and actions related to student admission, processing enrolments, course curricula, learning, and academic performance assessment. In other words, although they are developed at the micro level, these decisions and actions represent the HEI's core activity.

In this pluralistic and complex context of HEI in general, decisions and actions do not follow an essentially linear logic influenced by a bureaucratic structure. On the contrary, the materialization of actions is much more the result of initiatives by academic managers in search for solutions by

coping with the unexpected events responding to challenges. Although routines are used as a standard of reference and guidance to maintain order and organizational processes, the environmental dynamics brings unpredictability pose challenges to managers leading to unconventional practices and change, even the replacement of routines over time in their daily routine imposing new procedures (Meyer, Pascuci and Meyer, 2018). Therefore, it is not uncommon in the academic management context to use alternative and informal mechanisms like improvisation.

Theoretically improvisation is characterized by a contraction between planning and action (Cunha, 2002), in other words, acting without prior reflection. Improvisation, therefore, contrasts with the classic managerial action, through which agents first analyze, decide and then act (Cunha et al., 2014; Cunha; Miner; Antonacopoulou, 2017). Even though studies that deal with improvisation in the field of organizational studies approach this concept from different perspectives (Lissoni; Costa; Moritz; Pereira, 2008) like creative and innovation, this study focuses on organizational improvisation (Cunha; Cunha; Kamoche, 1999; Hadida; Tarvainen, 2015).

To Hatch (2006) the idea of a change in routine is similar to the concept of improvisation, because improvisation is derived from the existence in organizations of a 'minimal structure' (Kamoche and Cunha, 2001), which includes plans, the mission, routines and protocols. Thus, a routine serves as guidelines, reference and support for creativity and innovation, which are necessary for organizational actions, given the dynamics of the environment (Hadida; Tarvainen, 2015).

Therefore, there is a close relationship between improvisation and sensemaking (Weick, 1995), as the latter represents the way in which organizational agents interpret events and create meaning regarding how to enact in relation to them. The same occurs when there is a need to creatively combine the resources available at the time to respond to unexpected demands (Cunha; Cunha; Kamoche, 1999), developing improvisations. Consequently, organizational improvisation can result in learning and even the institutionalization of new practices and routines (Miner; Bassoff; Moorman, 2001; Cunha; Clegg, 2019) that contribute to improved processes.

Considering the dynamic and pluralistic context of university management and the challenges imposed by its unique bureaucracy, this study examined the characteristics through which improvisation manifests in the academic management of a Brazilian public university. This is a qualitative case study that was based on concepts related to decision making in public administration, university management and organizational improvisation.

The aim of this study was to analyze the characteristics of improvisation that takes place in the academic management in a public university. In this effort it is identified triggering factors and motivations, plus manifestations and results. It is also hoped that the results of this study can contribute to the understanding that organizational improvisation is a fundamental mechanism that enables academic managers with flexibility to overcome situations where existing rules and procedures are not sufficient to address the challenges of a complex and dynamic s of the organizational environment.

## **2 Theoretical Framework**

### **2.1 University, unique characteristics and management**

**A**lthough New Public Management (NPG) has been characterized by the idea of a state entity managed in the style of the private sector, focused on decentralization and efficiency (Araújo, 2010; Denhardt, 2019), its achievement remains far from becoming a reality (Heidemann, 2009; Bryson; Crosby; Bloomberg, 2014). There are several characteristics inherent to the history of these public organizations that still need to be overcome. These characteristics include conflicts of interest and their impact on the prioritization of areas and levels of government, budget constraints, rigid processes and the strong political aspect involved in decisions (Heidemann, 2009; Bryson; Crosby; Bloomberg, 2014).

Public universities, in turn, face additional challenges in terms of management. They are composed of multiple groups, with distinct and conflicting purposes (Etzioni, 1964; Jarzabkowski; Fenton, 2006). Among the agents that integrate and interact inside and outside a university are professors, students, civil servants, trade unions, external agencies and the community, who often put their interests on the agenda, influencing management (Hardy et al., 1984; Meyer; Lopes, 2015). Furthermore, universities are organizations with multiple purposes (Etzioni, 1964), reflected in their mission of teaching, research, extension and social work. It is a place where teaching and learning takes place, also where knowledge is produced and applied in a form of services to society.

These are professional organizations (Mintzberg, 1994), in which bureaucratic authority is in constant conflict with professional authority. Discontinuous management (Denhardt, 2012), the collegiate decision-making process and organized anarchy (Cohen; March, 1974) and the loosely coupled system with quasi autonomous areas with weak linkage among themselves (Weick, 1976), what make the linearity between decisions and actions extremely difficult and control quite difficult. Furthermore, the troubled coexistence of diverse and often conflicting interests between central administration, and academic centers and academic programs and make the integration and implementation of actions quite a challenge (Meyer; Pascuci; Meyer, 2018).

The overlapping of roles is another characteristic of universities, especially public ones, which cannot always be associated with the efficiency of processes and management. It is a practice in Brazilian higher education to select faculty members to positions in the academic management area. Mostly without qualification and previous experience in the area. They are amateur managers in universities whose role is graduate professionals for society (Simon, 1967).

According to Marra and Melo (2005), the restrictions facing academic managers limit the adequate development of their functions. For instance, excessive bureaucracy, scarcity of resources and professionals, along with political constraints, reduce possibilities for action, providing a motive for seeking emerging solutions, such as improvisation, so that the goals of academic units can be achieved and their managerial functions can be more effective.

Of the different functions performed by academic managers, this study focuses on the coordination of undergraduate programs. These are professor-managers who are at the head of the process who are directly involved in coordinating and developing teaching, research and extension activities (Carroll and Wolverton, 2004). Academic program coordinators play a fundamental role in universities, as they are responsible for dealing with pedagogical and legal issues, involving students and professors, in addition to maintaining the quality of teaching and learning in their academic programs.

The perception that academic activities follow plans or an explicit set of intentions that control actions is too limited to permit a satisfactory understanding of how actions effectively materialize in the academic context (Hardy et al., 1984). It should also be considered in the academic context that actions, in addition to being planned or prescribed, materialize according to the circumstances and needs of the moment, including the emerging actions necessary to deal with unexpected problems involving different actors (Hardy et al., 1984). These emerging actions may be referred to as improvisations: actions that sidestep the common work routine to deal with unexpected problems or opportunities for change to achieve a specific goal (Vera; Crossan, 2005).

## 2.2 Organizational Improvisation

According to Weick (1987), improvisation can be understood as a just-in-time strategy. This strategy is different because it invests less in an attempt to anticipate everything that might happen and emphasizes aspects such as knowledge, an ability to immediately understand a situation and trust in intuition (Weick, 1987). These characteristics enable an individual to deal with unexpected situations under pressure. Cunha, Cunha and Kamoche (1999) associate improvisation with actions developed by the bricoleur, using different material, cognitive, affective and social resources that are available at a given moment to solve a problem.

In this respect, organizational improvisation is characterized as being different from the “Brazilian way” (Damatta, 1983), understood by many as “trickery”, an action that seeks to ignore organizational procedures and break institutionally established rules. According to Cunha, Bednarek and Smith (2019), improvisation is an action that seeks innovative solutions to handle challenges, surprises and pressure, while at the same time making procedures and routines more robust by complementing them.

Several factors contribute to the dissemination of improvisational actions. For example, reaction to unexpected events (Cunha, 2005; Duarte, 2006), lack of or insufficient routines (Cunha; Cunha; Kamoche, 1999), scarce resources (Cappelli et al., 2010) and autonomy (Weick 1998). Improvisation can occur irrespective of the existence of structured routines due to a responsibility to deal with an emerging problem (Cunha, 2005). Duarte (2006) adds that improvisation can be used by managers to handle unexpected situations, an informal action to achieve goals in spite of organizational bureaucracy.

Improvisation in the absence or insufficiency of routines emerges as a solution to deal with a different or unexpected problem not foreseen by the organization’s formal procedures (Cunha; Cunha; Kamoche, 1999). To Moorman and Miner (1998), routines are sometimes insufficient to deal with events and, therefore, the organizational agent is led to ignore procedure, seeking the best way to act, to reflect and build meanings (sensemaking) for their actions (Daft; Weick, 1984). Professional autonomy – characteristic of professors and academic managers – can also be decisive when it comes to improvising in the work environment, as it allows freedom to express creativity (Brown; Eisenhardt, 1997; Weick 1998; Cunha; Cunha; Kamoche, 1999; Fisher; Barret, 2019). Therefore, knowledge, intuition and creativity are key factors in this process (Weick, 1987).

There are different ways in which improvisation can manifest, with its characteristics varying systematically (Cunha et al., 2014) for each organizational problem solved (Cunha et al., 2014). It should be highlighted that different organizational contexts can explain different types of improvisation. Cunha et al. (2014) highlight four ways in which improvisation can manifest: Ad-Hoc, Covert, Provocative and Managed.

Ad-Hoc improvisation is a spontaneous and unpremeditated reaction to deal with unexpected events that arise in daily life. Covert improvisation, in turn, is a local and informal reaction against the organizational status quo. In other words, agents react in their own way, seeking to achieve specific goals. Provocative improvisation, on the other hand, is an attempt to challenge institutionally established procedures with explicit purposes. Finally, Managed improvisation is already legitimized in the organizational context (Cunha et al., 2014) and identified in organizations with a simple structure and rules that simultaneously allow a certain level of structure and autonomy that enable the organizational system to adapt.

The bureaucracy of public universities, combined with dynamic demands and the autonomy of professors, is a favorable context for organizational improvisation (Scaglione; Meyer; Mamédio, 2019). In this context, when managers are faced with time limits if they are to act according to plan, it is common for them to seek new alternatives for action. Thus, improvisation is an alternative to compensate for being short of time, resulting from the adoption of rational procedures such as routines, consisting of action undertaken to enable better chances of adapting to contingencies (Cunha; Cunha; Kamoche, 1999).

Improvisation can contribute to organizational performance, as it can be a source of learning for academic managers (Scaglione; Meyer; Mamédio, 2019). As Schön (1983) pointed out people reflect while they act. Therefore, the reflection of individuals while improvising can lead them to generate new knowledge. Improvisation also favors short-term, incremental learning that, if consistent over time, renews organizational practices (Miner; Bassoff; Moorman, 2001; Cunha; Clegg, 2019), creating routines.

### **3 Methodology**

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This study is qualitative, descriptive and exploratory in nature (Creswell, 2010). As for the ends, it is descriptive and exploratory, and as for the means, it is a case study (Vergara, 2005). The case study is justified as it researches a public, complex and pluralistic organization, which reconciles bureaucracy and, at the same time, the agents' autonomy, a condition met by the federal public university that is the focus of this study.

Primary and secondary data were used in the study (Richardson, 1999). The central strategies for collecting primary data were ethnographic interviews (Spradley, 1979; Tierney, 1991), participant observation, and informal interactions and conversations with the intention of exploring the phenomenon investigated. The secondary data were accessed from laws, resolutions, rules and internal procedures retrieved from websites and provided by the interviewees.

The participant observation took place at the secretariat of an academic program where one of the researchers followed the routine of the office and coordinator's activities involved in dealing with students and professors for 40 days (amounting to 120 hours of observation). The objectives of the observation were the following, first, to understand the functioning of the collegiate program or it would the activities of the Program Coordination. Second, to observe the existence of improvisations, that is, actions taken that were not outlined in the instructions to be followed under certain circumstances. Third, to examine the demands that arose and actions that were taken to solve problems, as well as personal and professional interactions with students, professors, other internal units of the university, external entities and the community. The results of the participant observation were recorded in a field diary.

For the ethnographic interview, an unstructured script was adopted. The interviewees were coordinators of undergraduate programs (courses) at the university. The ethnographic interview is characterized as "engaging in a friendly conversation" (Spradley, 1979, p. 464) with the interviewee and exploring subjects of interest to the research, seeking to gather points of view and opinions by sharing experiences and knowledge (Tierney, 1991). Twenty coordinators of the following undergraduate programs were interviewed: Economics, Social Sciences, Nursing, Management, Production Engineering, Architecture and Urbanism, Music and Law.

The respondents were selected by non-probabilistic or intentional sampling (Richardson, 1999), due to the feasibility of contact in these academic units. Programs from different areas were selected in order to understand the characteristics, reasons and results of the manifestation of improvisation in the behavior of academic managers of programs with different rationales and areas of expertise.

The following criteria were used to select the coordinator interviewees: 1) academic qualification in different fields of knowledge; and 2) experience as a coordinator in the last ten years. During the interviews, the coordinators were asked to identify former coordinators to broaden the sample.

The primary data were analyzed using narrative analysis techniques (Schutt, 2015). In this study, the narrative analysis was used with a focus on analyzing meaning, as the main interest was in real occurrences, experiences and events as told by the participants, concentrating on the content and meanings of the narratives (Elliot, 2005).

The data collected from the interviews and the field diary were organized and interpreted, serving as a basis for the development of narratives. For each interview, a narrative was constructed. In these narratives, an effort was made to explore the manifestations of improvisation, including its characteristics and motivations and results in the management of the courses in question.

## 4 Analysis

The reports and participant observation showed that improvisation in academic management practiced by the program coordinators arose as a response to demands, especially unforeseen ones, that urgently needed to be resolved. It was observed that some types of improvisation

presented by Cunha et al. (2014) (Ad-Hoc, Covert and Managed) coexisted in the performance of the interviewed coordinators. Next, the manifestations of improvisation in three micro cases were explored, which were selected for their representativeness in the context and richness of detail.

It was found that students who fail to graduate on time and spend extra years at the university are among the aspects that concern course coordinators, being extremely harmful to the university, with a negative impact on the indicators that measure the “success rate” of undergraduate courses. Therefore, one of the challenges for course coordinators is to find mechanisms to address this bottleneck. Micro Case 1 presents an academic demand related to the enrollment process.

Micro Case 1: A significant number of Alpha Program students were held back in compulsory subjects, due to conflicting schedules in the curriculum with their employment/internship, or due to an insufficient performance coefficient to obtain a place in incomplete disciplines. The offer of some subjects with high rates of students who fail to graduate on time, in alternative schedules, presented a great challenge to the academic program coordination, as it depended on intermediation with other departments responsible for offering these subjects, or even on the professors responsible for these subjects agreeing to offer their subjects at a different time than usual. In many cases, the definition of the schedules that were offered served the interests of the professors rather than the program. Another complicating factor for the program coordination was the inexistence of equivalent disciplines when comparing the schedules of the morning and evening courses. Due to these limitations, the coordinator began to interact with professors to ask about dropouts, that is, places available for the allocation of the students who were unable to graduate on time. Informally, the coordinator made a proposal to professors who offered the same discipline in the daytime and evening courses that would allow students to attend the course at a time other than the class in which they were formally registered, although the students' grades would be entered in the discipline of the class in which they were enrolled. A third initiative adopted to solve the problem was the offer of two agendas with the same discipline code (one for the day course and another for the evening course) so that a certain compulsory subject could be used by students at both times, regardless of the class in which they were formally registered. To gain the support of the collegiate, the coordination justified the proposal as a palliative measure with the intention of lowering the pressure resulting from the number of students who fail to graduate on time while seeking formal mechanisms to solve the problem.

The researcher's participant observation showed that the program coordinators adopted informal mechanisms in their daily lives, seeking greater flexibility so that requests for enrollment in disciplines were met. In this respect, a coordinator highlighted that “[...] many students are unable to enroll in subjects due to the course being held at times when they have employment or internship commitments and even informal jobs” (Report I4). These situations give the coordinator greater flexibility, enabling the enrollment of students who were unable to graduate on time when informally seeking the cooperation of professors, changing the schedule of their subjects or allowing students to attend their classes, even if they are not formally enrolled. This type of situation was observed in Micro Case 1.

As a standard routine, student enrollment can take place on three occasions: 1) when the student enrolls in the subjects offered up to the number of places available; 2) when new places become available due to cancellations of student enrollments or when new classes are offered at the initiative of the program coordinator; and 3) when the program coordination makes manual adjustments to the enrollment system to resolve specific issues.

Faced with the emergency demand to make more places available to reduce the rate of students who fail to graduate on time, the coordinator acted autonomously, that is, without any type of control over his activities. The developed actions were outlined according to their sensemaking (Weick, 1995), seeking a solution for the enrollments that had not been updated. In one case, the manager adopted informal mechanisms of interaction with professors when students were unable to enroll in their programs. Another mechanism was the unconventional use of available instruments, such as the discipline agenda. The adoption of two guidelines with the same code, for different times of the discipline, was also innovative. In both initiatives, Ad-Hoc and Covert improvisation can be

identified, as they are immediate responses to problems as they arise, in addition to informally established interactions with professors.

In this respect, the understanding of coordinators regarding the need to “[...] take a little detour from what is considered conventional” (Report I5) to implement specific actions was found to be natural. In other words, in practice, academic routines and procedures are general guidelines and, at times, they can be considered symbolic, as many demands are effectively handled based on the coordinator’s feeling as he seeks the best way to meet demands within the required deadlines. Thus, the manifestation of Managed improvisation (Cunha et al., 2014) was also identified, where the manager’s discernment and expertise in the search for solutions coexist.

Another finding was that improvisations can also emerge because of students’ specific needs. Micro Case 2, for instance, reports on a more specific demand, (unexpected, in accordance with Weick (1995)), related to the behavior of students with mental problems.

Micro Case 2: On a school day, the coordinator of the Gamma course came across a student who was in a state of psychotic breakdown, with delusions and hallucinations. The coordinator immediately went to talk to the student, aiming to calm him down. With the support of the secretary of the collegiate, he sought the university authorities to inquire about the feasibility of monitoring the health unit, but without success. He then accessed the student’s personal information and attempted to telephone to his family, but there was no answer. After some time trying, he managed to contact the student's mother, who was unable to pick him up at the university. Intending to minimize the turmoil generated in the classroom and not leave the student helpless, the coordinator sought to identify the student’s address and, accompanied by the secretary, took the student home, explaining what had happened and leaving him in the care of his family.

As shown in Micro Case 2, the researcher’s participant observation also shows that the actions of the program coordinator are not limited to teaching and professional guidance for students. Frequently, dealings with students are of a psychosocial nature. In this respect, the observing researcher found that “[...] every day, the course coordinator addresses students’ personal demands, issues that directly affect their academic performance and are not found in the Academic Resolutions that define the coordination’s activities” (Field Diary). In these situations, it is very common to find demands that generate a need for improvisation. This perception was corroborated by the program coordinator, who stated that “[...] the course collegiate has helped students with health issues, depression [...] and sometimes we coordinators end up listening to the students and giving them advice [...]” (Report I18). The coordinators highlighted that, although their job descriptions do not include offering this kind of help, there is adequate prior preparation for this type of situation, which has become increasingly frequent. Furthermore, students suffering from depression and financial difficulties were evidenced in the researcher’s participant observation. On these occasions, although the university has a student aid program, sometimes this support turns out not to be effective. The lack of a protocol for action in these situations means that the coordinator has to seek alternatives and even improvise, depending on the context.

Regarding occasions related to students who have psychological disorders, one of the academic coordinators highlighted that “[...] there is no specific procedure for offering support. It is up to the coordinator to identify the best way to deal with the issue, talk to the student [...]” (Report I6). Improvisation in these circumstances (when it involves psychosocial aspects) depends on the situation of each student, and it is up to the manager to find the best way to act. In this regard, another coordinator pointed out that “[...] students who have psychiatric problems are not entitled to any kind of leave. Students have an obsessive-compulsive disorder or suffer from panic syndrome and cannot go to class [...] so, we negotiate with the professor, and the professor gives them an assignment to do at home [...]” (Report I2).

In this Micro Case, the coordinator’s improvisation was identified in the decision to take the student home. The formal procedure in situations of illness is to refer the student to the university’s health unit but, at that time, psychological medical support was unavailable. As an emergency alternative, the academic manager’s first initiative was to calm the student down and contact the



family to inform them of the situation. Seeing that it would not be possible for the family to collect the student at the university, the academic manager took the student home so that the family could provide the necessary care. It is a non-routine action (Cunha; Cunha; Kamoche, 1999), which was reflected and decided on at that time, as a result of the coordinator's sensemaking (Weick, 1995), identifying this option as an alternative action to deal with an unexpected experience. Intuition was also present, as highlighted by the academic coordinator "[...] at the time I just wanted to help the student, I didn't think twice [...]" (Report I5). In other words, the action was non-premeditated and spontaneous (Cunha; Cunha; Kamoche, 1999).

Thus, it can be considered that the coordinator's decision to take the student home to his family is characterized as: 1) an emergency demand, due to the need to address a health issue, highlighting the manifestation of Ad-Hoc improvisation; 2) when taking the student home, the academic coordinator did not act in accordance with the rules or regulations of the university. Therefore, he was offering a spontaneous response to the problem, using his autonomy to develop new actions, which can be characterized as Managed and, at the same time, Covert improvisation, as he failed to comply with the institutionalized procedure.

Another kind of demand that requires an academic coordinator's ability to adapt is represented by changes in legislation, with tight deadlines or the need for support from peers. This is the case of complying with the academic norms of the National Higher Education Evaluation System (SINAES), presented in Micro Case 3. Universities must comply with legal requirements for the accreditation of their teaching, research and extension activities, according to the evaluation instrument (Sinaes, 2018). In this respect, there is an information, assessment and supervision system to ensure the quality of higher education, aiming to gauge the results of the teaching-learning processes, as well as the infrastructure and didactic and pedagogical conditions of higher education courses. This assessment is conducted through an on-site inspection of institutional conditions to determine whether the university is complying with the requirements for teaching quality. Thus, compliance with standards is essential for maintaining the quality of courses and continuing to offer them (Normative Instruction, No. 004, 2016).

It should be highlighted that the rapid changes in the legislation and the slow bureaucracy (Denhardt, 2012) that, especially in the case in public universities, requires academic program coordinators to take emergency actions and even resort to improvisation. This is because the need to enact processes suffers due to the bureaucratic structure of public universities, affecting compliance with deadlines determined by external agencies. This situation was observed in Micro Case 3.

Micro Case 3: Course Beta had a series of normative issues related to the SINAES that lacked solutions, such as adapting to the Pedagogic Program Project (PPC) and the curricular structure. Inspectors from the Ministry of Education found that the PPC lacked certain course contents related to issues, such as ethnic and race relations, and the teaching of African-Brazilian, African and indigenous history and culture. They also found issues in the curricular structure due to insufficient interdisciplinarity and the absence of a description of the program's vocation. In view of these demands, the tight deadline (for the first semester of the following year), and the knowledge that administrative procedures would progress slowly, the academic coordinator adopted mechanisms to ensure greater agility. Regarding the didactic and pedagogical issues, the same coordinator created a committee with three professors to propose changes in the course's curricular structure. Aiming to streamline this process, the academic coordinator interacted with the members of the collegiate, members of the department, the departmental council and Dean of Undergraduate Affairs, to informally articulate a rapid analysis and approval of the changes to the curriculum to sidestep the formal procedures, avoiding difficulties, both personal and procedural, that would hinder the implementation of the necessary changes. This initiative enabled approval without obstacles during the formal procedures, whether in meetings, or with the collegiate and councils responsible for approval.

Given the challenge of meeting the demands on time, the academic coordinator sought mechanisms to anticipate the formal procedures of the decision-making process. In other words, he

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improvised by interacting informally with the members of the different committees that would assess the changes (members of the program collegiate, the department and the departmental council) to influence them positively and ensure that the decision was favorable when the formal procedures occurred. This situation is demonstrative of Ad-hoc improvisation, as the aim was to meet deadlines, in addition to Covert improvisation, because of the informal interactions, with the intention of influencing decisions to be taken by groups. As highlighted by the academic coordinator in question, “I was asking, talking and convincing the teachers to help implement the decision [to change the curriculum content, the course’s curricular structure and the PPC]” (Report I5). This case also highlights the manifestation of Managed improvisation because of the course coordinator’s experience as an articulator and expert in the political aspects that surround some decisions in public universities.

The coordinator’s behavior, when interacting informally, is characterized as managerial astuteness, enabling the building of relationships favorable to institutional goals. This behavior also reveals the strong political aspect of universities, considering the existence of different groups with conflicting interests in the academic environment.

Therefore, it is possible to identify cases of improvisation and the characteristics of different types of improvisation, in accordance with Cunha et al. (2014), namely, Ad-Hoc Improvisation, Covert Improvisation and Managed Improvisation, as shown in the Table below.

Type of improvisation	Preponderant characteristics	Relationship with the presented cases
<i>Ad-hoc</i>	<ul style="list-style-type: none"> <li>- Response as academic demands emerge.</li> <li>- Inexistence of a plan. Process of discovering a solution.</li> <li>- Temporal synthesis between thinking and acting.</li> </ul>	<ul style="list-style-type: none"> <li>- High rate of unenrolled students, requiring immediate manual adjustments of several issues (Case 1).</li> <li>- Urgent help for a student with a health issue (Case 2).</li> <li>- Altering curriculum content of the course in the short term (Case 3)</li> </ul>
Disguised	<ul style="list-style-type: none"> <li>- Sidestepping formal procedures by identifying more effective informal means.</li> <li>- Autonomy that creates opportunities for actions other than institutionalized procedures.</li> <li>- Organizational structure of the university enables “informal solutions” – agents act in their “own way”.</li> </ul>	<ul style="list-style-type: none"> <li>- Interaction with professors of disciplines to open more places or to enable students enrolled in different groups to attend classes at other times (Case 1).</li> <li>- Program coordinator acted in his own way, aiding a student who urgently needed help (Caso 2).</li> <li>- Informal interaction with members from other levels with a view to gaining support to implement decisions with a previously stipulated deal (Case 3)</li> </ul>
Managed	<ul style="list-style-type: none"> <li>- Gaps in academic routines make it possible to find alternatives to meet demands not included in official formal documents.</li> <li>- University structure: presence of flexibility.</li> <li>- Wide range of knowledge and/or experience and formulation of new ideas/actions.</li> </ul>	<ul style="list-style-type: none"> <li>- The coordinator’s experience of programs in HEI aided his formal interactions to solve the problem (Case 1).</li> <li>- Experience in dealing with students with psychosocial problems enabled him to identify this alternative to help the student – perceiving the importance of providing aid (Case 2).</li> <li>- Past experience in the academic context showed him that informal interaction can aid the more rapid achievement of goals (Case 3).</li> </ul>

Source: Research

Regarding the aspects that drive improvisation in academic management, several features of the university context were identified as enhancers of improvisation and are presented below.

The traditional bureaucracy (Hardy; Fachin, 2000) found in the academic structure of the university greatly limits the flow of processes. In other words, a process is submitted to different levels for evaluation until it reaches the level that is interested in it, meaning significant delays. Therefore, in this context, informal interactions are basically institutionalized to streamline the processing of processes and minimize returns in the administrative hierarchy of the university (Hardy; Fachin, 2000). Regarding bureaucracy, one academic coordinator reported that, in the context of the public university, “[...] the thing is so bureaucratic that improvisation is a necessity [...] so I, being a naturally more practical guy, also act this way” (Report I3). It is also necessary to consider the inefficient speed of the university’s process flow, which sometimes accounts for this slowness.

The slowness of processes and the scarcity of resources are both motivators of improvisation. Circumstances in which the academic manager needs to seek alternatives, such as using his own resources to compensate for resources that are lacking, may occur in the academic context.

Another motive that was identified is academic managers’ lack of organization and planning. No matter how actions are defined or programmed or whether planning is based on the academic calendar, unexpected situations arise, encouraging improvisation to ensure adaptation to non-routine demands, as highlighted by Cunha, Cunha and Kamoche (1999). In this regard, one academic coordinator highlighted that “[...] the lack of planning to receive Ministry of Education’s inspectors created the need for all kinds of adjustments” (Report I5). In other words, the necessary responses to the demands of this environment are greatly influenced by disruption or a lack of organization, implying immediate actions.

Discontinuous management in academic program coordination also influenced reworking and adjustments and was considered a motivator of organizational improvisation in public universities. This can be observed in the report of a coordinator who highlighted the need to “[...] improve communication between program coordinators so that the transition of a function from one person to the other does not leave any unresolved activities that need to be developed [...]” (Report I4). This was found to be a recurrent situation in public management (Denhardt, 2012), in which projects begun by a management/coordination are not usually continued by the next managers to occupy the position. One academic coordinator highlighted that, upon assuming the role of academic manager, he found “[...] several pending issues to be settled” (Report I5). It appears that, in the transition from one coordinator’s mandate to another, it is essential to take measures to ensure that the new manager is aware of and continues initiatives that are already under way.

Another motivator of improvisation that was identified was academic managers’ lack of experience in the role. In this respect, one coordinator highlighted that he was the first academic coordinator of a new undergraduate program and, at the beginning, he “[...] had zero knowledge of how things worked [...] and that was why the actions that were taken were improvised, on the spur of the moment according to what came up” (Report I9). This behavior is explained by the fact that the academic manager is not prepared for this role. On the contrary, he gains knowledge of the details of the position, processes and administrative procedures through practice and experience (Meyer, 2014).

Informal interactions are important to less experienced managers, as highlighted by Mintzberg (1971). Through informal interactions with other agents, such as more experienced technical and administrative civil servants or professors who have already worked in coordination, new coordinators seek the knowledge that they did not have of the activities they are undertaking and the quicker paths and possibilities to conclude processes and solve unexpected problems.

In particular, a lack of knowledge of management and, more specifically, academic management, was also identified among the interviewees. This is representative of amateur management, which is common in universities, as already highlighted by Meyer (2014), as professionals are from different academic backgrounds not necessarily related to the administration of the positions they assume. It is also necessary to consider the lack of knowledge of the unique

administrative details of a public university, such as the rules and norms that govern academic positions and procedures, another motivating factor of improvisation that was identified.

Some mistakes, from different sources, were also identified as motivators of improvisation. One coordinator highlighted that “there are situations where we also improvise due to system errors, people’s mistakes [...]” (Report I5). Another aspect identified as a possible motivator of improvisation is outdated academic procedures, made obsolete over time, requiring the academic coordinator to seek alternatives, improvising in situations where the old solutions no longer serve.

Professional autonomy (Mintzberg, 1979) also influenced the manifestation of improvisation. As one of the interviewees highlighted, at the university “[...] we have the problem of mismanagement or autonomy, meaning that every professor thinks he owns his own subject and can do as he pleases.” (Report I16). In particular, this academic coordinator highlighted the characteristic of the partial autonomy of professors, which gives them the freedom to diverge in some decisions concerning their work, such as teaching methods, definition of a discipline program, what to teach or how to act in the classroom. Therefore, the academic coordinator is limited in terms of control over this aspect with peers, as it is a relationship of shared power (Weick, 1976).

The existence of improvisational practices in everyday life was acknowledged by some interviewees, like the coordinator of the Architecture and Urbanism program. On the other hand, improvisation manifestations were not recognized in the managerial practices by the academic coordinator of the Production Engineering program. These examples reveal that perception about the existence of improvisational practices varies among academic coordinators regardless of the area of knowledge.

## **5 Discussion**

Manifestations of improvisation in the academic context are characterized by short-term actions, with considerable informality in the behavior of managers. This is due to the presence of unexpected and non-routine demands that lead coordinators to resort to improvisation. However, even in situations where activities are planned, the manifestation of improvisation was also identified, stimulated by emergency demands or pressure to meet tight deadlines. It was observed that, in the micro cases that were investigated, the predominant types of improvisation were Ad-hoc and Covert, with the latter being due to the strong influence of informality.

Regarding the constructs that constitute improvisation, manifestations of sensemaking, bricolage, creativity and adaptation were observed. Sensemaking influenced improvisation as academic managers analyzed and made sense of the demands that they examined in order to identify possible solutions. The coordinators’ autonomy proved to be fundamental in this process.

The presence of bricolage was also identified in most of the improvisations that were examined. Bricolage was predominantly present through the use of social resources, represented by informal interactions between managers, professors, students, and other players to face challenges or even obtain information on processes that lay outside their domain. This behavior was also enhanced by the professional autonomy of the academic manager. Creativity, in turn, was identified and was essential for solving problems through improvisation. However, it was insufficient for the innovation of processes or the modification of work routines or practices in the coordination of the programs in question. It was observed that improvisation in academic management was of an adaptive nature with regard to existing routines, ensuring quick solutions and differentiated alternatives when compared with institutionalized procedures.

The complex and pluralistic context of the university (even more so in public management), with characteristics such as ambiguity, loose coupling, shared power and teaching autonomy, enables academic managers to act in their own way, which leads to a variety of possibilities for solving the same problem, especially considering the sensemaking present in this process. Another aspect of response to public university bureaucracy is that it is common for academic managers to make use of

“social resources” in different ways. For instance, by influencing their peers in the decision-making process, or taking steps to anticipate formal procedures, which creates a significant potential for improvisation in academic management.

Despite the existence of academic routines, such as the program coordinator’s manual and internal regulations, for everyday demands, situations that require immediate responses are very common. The manifestation of the improvisations in question revealed the generation of knowledge. However, they did not show a break from routines or procedures, which can be justified by the fact that they are dynamic, precise actions, and also by the difficulty involved in implementing changes in the academic context and the lack of interest of those involved in doing so.

As triggers of improvisation, the following factors were highlighted: the excessive bureaucracy of public universities; the scarcity of resources; discontinuous management; amateur management; the heavy workload of program coordinators; outdated and/or incomplete academic procedures; and the professional autonomy of professors.

Just as a significant part of improvisation is based on minimal structures, many of the improvisations identified in academic management, some of them micro improvisations, were found to refer to the continuity of actions. In other words, they are somehow guided by existing academic routines. Other improvisations were responsible for simple but important adaptations.

## **6 Conclusion**

The practices of organizational improvisation were mostly characterized as strategic in the academic management under study. It was found that, like other organizational contexts, academic management in public universities provides ample space for the practice of improvisation.

The dynamic nature of the academic context makes it difficult to follow systematized routines. In this context, managers frequently sought to solve urgent problems (time factor), using the resources available at the time. Thus, the inexistence of adequate processes, managerial inexperience and pressure to solve problems stand out. The permanent discontinuity of managers in academic management in a public university means that occupants of academic managerial positions permanently struggle with slow and short-term learning, which strengthens and perpetuates amateur academic management. This is incompatible with the new educational, economic, social, technological and environmental demands currently imposed on today’s universities.

The main factors that trigger improvisation practices in the management of academic program coordinators were identified. Thus, factors such as excessive bureaucracy, discontinuity of managerial positions, the manager selection process, amateur management, multiple responsibilities with an excessively heavy workload, invalid academic procedures and professional autonomy all proved to be influential. Another aspect that proved relevant was the lack of knowledge on the part of the managers of the institution regarding the particular aspects and details of the university organization like its complexity and uniqueness that make it very different from other types of organization, with clear implications related to how universities behave and are managed and for which there are no ready-made and adapted models and approaches in this complex context. These are important elements that deserve greater reflection from the managers of public universities and the official agencies that oversee the Brazilian education system.

Responding to the challenges of today's world requires changes from public and private universities. In this respect, seeking greater managerial capacity and agility is a requirement and condition for the academic sector, in which the main functions of teaching, research and extension are concentrated and which constitute the essence of the mission of universities in our society.

A suggestion for future studies is to relate factors such as strategic and improvisational practices to gain a better understanding of how the dynamics of the strategic decision-making process influence improvisation by managers. When formal plans fall short or fail there is always room for improvisational initiatives. Comparative studies considering organizational improvisation in public

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and private universities would also aid a better understanding of the influence of the context and specific details of public management on the adoption of improvisational practices.

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