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RESEARCH PAPER

Work in the brazilian judiciary: application of ergonomic concepts

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ABSTRACT

Goal: The management of the Brazilian Judiciary has been undergoing transformations with the digitalization and certification of its work processes, aimed at improving the quality of its services, including accessibility, relevance and transparency of information, simplicity of formalities and speed. In this context, ergonomic issues that arise are highlighted.

Design / Methodology / Approach: This research opts for a case study based on the ergonomic work analysis (EWA) of an Organizational Unit (OU) of the Brazilian Judiciary. The focus of the study is on the challenges to the adaptive capacity of employees and managers, with an emphasis on the impact of the new management of the Brazilian judiciary.

Results: The research identifies risks to workers' health and productivity due to the intensification of the workload and the breakdown of the boundaries between work and non-work time. In order to mitigate these risks, ergonomic interventions were proposed, concluding with the role of ergonomics as an auxiliary tool for the humanized management of the Brazilian Judiciary.

Limitations of the investigation: The application of EWA in a judicial unit involves the subjectivity of the researcher in drawing up the instrument and ~~the~~ peculiarity of ~~the~~ profile of the sample used.

Practical implications: These are related to advances in the identification of knowledge regarding the contribution of ergonomics to improving productivity and quality and guaranteeing the health and safety of judicial workers.

Originality / Value: Among results of this research, the importance of issues concerning the areas of workers' health and safety stands out, contributing to the Organization's strategic plan in fulfilling its institutional and social functions.

Keywords: Judiciary; Management; ICT; Quality; Ergonomics.

1 INTRODUCTION

In terms of tactical decisions, modern public management aims to apply management techniques and technologies that allow governments to deal with a complex, interconnected and changing agenda, according to Gregório *et al.* (2019). However, there are real possibilities for work intensification, both due to the use of ICT and the inflexible rules of certification. One of the hypotheses of this research is that these possibilities create social demand that can be met by research, such as in the areas of Ergonomics and in the field of Human Sciences, including issues related to Worker Safety and Health (Orrillo and Figueiredo, 2024).

In the context of the 'Reform of the Judiciary' in 2004, implementation of certification and virtualization of the judiciary's work processes were identified as processes to modernize its management. Major question arose about the applicability of organizational innovations in industrial sector to public services, such as the judiciary.

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Many questions have been raised about "Managerial Public Administration", since the institutions of the judiciary appear to be complex organizations that cannot just be fast, efficient and intelligent. They must also be fair and understandable both for the citizens who use them and for the employees who carry them out. Administrative and research approaches are needed that consider not only productivity, efficiency and speed, but also aspects related to the quality of life of workers (Gaulejac, 2007; Procopiuck, 2018).

The initial premise of this research is that the concepts of ergonomics applied help to humanize the practices of the certified and computerized management system in the judiciary. For this to happen, managers need to be retrained, consolidating a more humanized cultural change, supported by the acquisition of new competencies, skills and attitudes, emphasizing a systemic vision, critical thinking, collaboration and creativity.

From this problem situation and the premise indicated, the general objective can be defined, which is to answer the questions that guide this research: how can ergonomic concepts be identified and applied in the judicial management system? What is the best strategy for intervening in work processes in order to achieve greater evidence of the humanization of work in the Brazilian judiciary?

2 THEORETICAL FRAMEWORK

In this stage of the research, a systematic literature review was carried out with the aim of identifying national and international judicial institutions that have implemented electronic legal proceedings (e-justice) and quality management (q-justice) to improve organizational effectiveness. The databases used for the literature review were Scopus (Elsevier) and Web of Science (Thomson Reuters Scientific). These data bases were accessed through the CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior) journal portal.

Throughout the world, judicial institutions have sought to improve their performance and the quality of their services with ~~a~~ view to the external client/ society. It must also take into account the quality of life at work, mainly aimed to human capital of judiciary institutions. However, it is important to note that these two points of view - that of the client and that of the court - are not watertight and respond to each other in a reflexive dynamic (Mohammed *et al.*, 2017).

In Brazil, with the Reform of the Judiciary, starting with EC No. 45/04, the National Council of Justice (NCJ) was introduced into the Brazilian legal-constitutional order. Since its creation in 2005, the NCJ has been publishing resolutions with the aim of developing strategic thinking, as well as modernizing judicial organizations. It favors the adoption of ICTs and administrative tools associated with these technologies, considered a turning point in the modernization of the Brazilian judiciary.

In 2009, NCJ Resolution No. 99 was published, making it the judiciary's primary task to provide effective technological solutions so that the courts can fulfill their institutional functions. In 2013, Resolution No. 185 was published, which instituted the Electronic Judicial Process System - eJP as a system for processing information and practicing procedural acts and established the parameters for its implementation and operation (Gomes *et al.*, 2018; Silveira *et al.*, 2015; Serbena, 2013).

In this chronology, other NCJ resolutions have been published. Among them, two stand out for their reference to health and people management: Resolution No. 207/2015 - on the Integral Health of Servants and Magistrates and Resolution 240/2016 - on People Management. Following technological developments, recently, in February 2025, a draft resolution was developed by a NCJ working group on the use of AI in the Judiciary. The text provides guidelines for its development, auditing, monitoring and responsible use in Brazilian judiciary.

However, little is known about the impact of the digitalization and certification of court proceedings on health and quality of life at work. In this sense, it seems essential to deepen the analysis of ergonomics with a view to developing knowledge about the relationship between digitalization and certification of court proceedings and the human factor at work (Du Marais and Gras, 2016).

The literature search found very few studies published in international journals indexed in the databases used dealing with e-justice and q-justice in Brazil. In this sense, despite the high investment made by Brazilian courts in technology in recent years, empirical studies

showing the results of this strategy are limited, which implies a research gap (Gomes *et al.*, 2018).

3 RESEARCH METHOD

We opted for the "case study", which details a specific environment, individual or situation in order to understand how and why certain phenomena occur (Godoy, 1995). The aim was to include ergonomic concepts in management modernization of judicial work processes, requiring a situated approach, with specificity of its context, following a research protocol.

The researcher used the Ergonomic Analysis of Work (EAW), recognizing, according to Semensato (2011), the agreement of its characteristics with the qualitative research method, as shown in Table 1.

Table 1 - Comparison between the methodologies of ergonomic action and qualitative research

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Ergonomic action methodologies	Qualitative research methodologies
Free observations	Free or participant observation
Documentation analysis	Documents, protocols, inventories, reports (organization)
Interviews	Structured, semi-structured, free interviews, focus groups

Source: Semensato (2011).

3.1 Case study

According to Falzon (1998), although "case study" deals with unique situations, this does not mean that generalization is impossible, that each case should be treated as a new case or that no reusable knowledge can be built up. Still along these lines, Valverde (1998) points out that case study has been used as a means of comparison with other cases or other situations, making it possible to find regular points, as well as patterns that can be identified as transferable constructed knowledge. As Leplat (2002) suggests, case study can thus constitute or enrich a body of knowledge that is useful for studying other cases.

Figure 1 shows the methodological structure with the requirements of a case study (Yin, 2016) and following the steps of EWA (Güérin, 2001).

Figure 1 - The methodological structure

QUALITATIVE RESEARCH: CONDUCTING THE CASE STUDY

1. **DEFINING THE RESEARCH STRUCTURE**
- Systematic literature review;
- Research delimitation;
- Outining of propositions.

2. **QUALITATIVE RESEARCH – EWA**
- **Researcher's perception (doctor and manager of the organization) – initial demand**
  - Timeline of research development;
- **Analysis of the initial demand with Senior Management managers**
  - Participation in WG;
- **Choice of the analysis situation – Selection of OU and research participants**
- **Pre-diagnosis**
  - Analysis of the OU's administrative routines (ADRs);
  - Visit to the selected OU with free observations;
- **Data collection**
  - Conducting semi-structured interviews and ITD appropriation;
  - Visit to the OU with participant observation;
  - Participation in a team meeting as a free observer;
  - Observations of audit practices;
  - Application of questionnaire;
  - Excerpts from dialogues on social networks in a closed group of the organization;
- **Diagnosis**

- Systematization, synthesis and comparison of the data collected and selected from the field research with each other and with the literature;

- **Recommendations for transformation**
  - Proposal for a more humanized transformation of the management of work processes in the judiciary based on the analysis of the interdisciplinary aspects of the contribution of ergonomics to the improvement of work processes in a Brazilian judiciary institution;
  - Declaration of applicability by a Senior Management Manager of the Organization studied;
  - Inspiration to promote greater health, safety and productivity for its workers.

The researcher identified and gathered information on the Institution's Intranet; she visited the organizational unit (OU) and conducted interviews (recorded and transcribed) with civil servants; she participated as an observer in a working group (WG) of Civil Chambers, a closed institutional Facebook group of civil servants and meetings of the external audit and the OU team. The data was obtained from interview transcripts, field notes and the researcher's notes (Denzin and Lincoln, 2011).

The "initial demand" was constituted by the researcher when she identified the need to include more humanized aspects in the modernized work process management system of the Brazilian Judicial Organization, where she has worked for 33 years. To this end, she brought ergonomic concepts into the analysis of improvements to this system.

The "initial demand analysis" aimed to gather information in order to understand the workings of the institution studied, which is part of the (ordinary) State Justice system. With the aim of gathering general elements for understanding the workers' jobs. The dimensions of the prescribed tasks were previously approached by the researcher by analyzing the administrative routines (ADRs), which define, according to NBR ISO 9001:2015, the step-by-step work process to be carried out.

Fieldwork began in the second half of 2019 with the researcher attending WG meetings to get to know the actors and work processes whose prescriptions were developed from administrative routines (ADRs), according to the systematization suggested by NBR ISO 9001:2015. The meetings were suspended with the start of the COVID-19 pandemic in March 2020. From these meetings, the researcher defined, together with the participating managers, the "work situation" to be analyzed.

With the onset of the pandemic, emergency remote work was established and the researcher was unable to continue her field research in person. In this way, she began analyzing random manual clippings of dialogues between workers in the organization in a Facebook group and publications on the Intranet, including data on the functioning and performance of the Organization during this period.

In September 2021, the first virtual meeting took place with the manager of the OU selected for the study via an institutional platform. When the hybrid work was released, between September and December 2021, the researcher began visiting the OU and interviewing its employees.

The visits, agreed with the manager, took place at different times of the day and working hours in order to identify possible variations in work dynamics (Abrahão et al, 2009). During the free observation visit, the physical working conditions were checked, such as equipment, materials and computerized systems. The different tasks and actions carried out by workers and managers were observed, in terms of duration, rhythm and breaks; communications between themselves or by landline and mobile phones, WhatsApp, virtual and face-to-face desks; movements; collaboration with other workers; interaction with technological tools; interruptions during the course of the activity; coffee breaks, lunch (Guérin *et al.*, 2001).

During the participant observation visit, the researcher chose the manager to follow her activities and the simultaneous verbalizations consisted of producing explanations in the context of the activity itself (Guérin *et al.*, 2001). Thus, the participant was asked to explain her intentions, thoughts and motivations in the course of her actions.

The researcher carried out semi-structured interviews with all the participants, conducting them with minimal interference, using questions from a pre-developed script. This type of interview gives the interviewee greater freedom, with more wide-ranging questions. With the interviewee's consent, the interview was recorded and later transcribed by the researcher (Flick, 2015).

As emphasized by Pinheiro (2020), through interviews we value the knowledge of the worker, brought to light by their speech about their work, and language is their privileged means of communicating, which should not be neglected in work analyses. Language reveals the cognitive and implicit aspects of these subjects' activities, which may not be evident through other methods.

In order to complement the understanding of the activity carried out by the workers, the researcher focused on what was done in a real work context and added the technique of instruction to the double - ITD - (Oddonne and Briante, 1981). In this technique, the worker is asked to talk in detail about their job, starting with the following triggering question: "If I were to replace you, how would you explain your job to me so that I would be able to do it well?". The manager, her replacement and a processor were selected for the ITD. The latter was nominated by the manager, following the "snow-ball" method, in which a new informant with symbolic capital is nominated (Creswell, 2007).

In this way, the intention was to retrieve the experiences and perceptions of the work process. The interaction with technological devices was addressed; relationship with collective, direct manager and external user; difficulties inherent in the exercise of their activity and characteristics of the organization and working conditions, as well as strategies developed to do the job well, including emergency remote work.

The aim was to go beyond a prescriptive description of how people should work, and to focus on the more subjective dimension of work. This includes each worker's own ways of doing things, the debates involved in these choices between one way of doing things or another, plus the interpersonal relationships developed (Muniz *et al.*, 2013).

The transcribed material was processed using thematic analysis (Braun and Clarke, 2006), in order to identify, analyze and report patterns (themes) within the data collected by the interviews. The first readings of the material (not yet categorized) revealed challenges of managing time and production targets, while trying to ensure different dimensions of the quality of the service provided.

A questionnaire, QHWSA (Brito *et al.*, 2013), was sent to the participants by email, consisting of questions on demographic, work and personal life aspects.

Research questions evolved during the course of this study, with an inductive approach, in which themes identified are strongly linked to what emerges from data itself.

The researcher also participated as a free observer, at the OU's external certification audit meeting in October 2021, and virtually at the team meeting in December 2021. In both meetings, all the employees of the OU attended in person, with the exception of two employees who were still working from home because they were in the risk group for COVID-19 complications.

At the team meeting, there was an opportunity to update and improve work processes based on the identification of non-compliant products (according to NBR ISO 9001:2015). Participants took the opportunity to ask questions. ~~M~~anagers considered these meetings to be equivalent to the certification meetings, called "critical analysis meetings", taking place according to the team's needs, which happened more frequently than quarterly, as proposed by the certification.

All information obtained was compared with each other, allowing it to be "triangulated" (Guérin *et al.*, 2001; Yin, 2016). In this sense, Pinheiro (2020) stresses the importance of recognizing the insufficiency of an analysis that only considers individual consciousness expressed at a given moment about events that take place over a longer period.

Once these stages were completed, it was possible to establish a "diagnosis" of the possible constraints observed in the activities carried out by the workers in the work situation analyzed.

The "validation" of results took place at all stages of the field research with all participants. According to Abrahão et al (2009), this validation takes place at different stages of a TEA. It is important that the different social actors consider that their point of view has been taken into account in the discussion and that it has been confronted with that of the other interlocutors. In this way, the negotiation process and final decision are favored, especially when it is concluded that changes are needed to improve the work.

The analysis of these results, taking into account the interdisciplinary aspects of ergonomics, provided opportunity to identify improvements in work processes and thus draw up "recommendations for improvement" for the work studied.

The anonymity of participants and their authorization to use the information were

respected.

4 RESULTS

The organization selected for the study is a state judicial unit, made up of the judges who work in the Internal Affairs Department (first instance), the judges who work in the courts of justice (second instance), as well as the special civil and criminal courts. The state courts are responsible for processing and judging any case that is not subject to the jurisdiction of another court (common federal, labor, electoral and military courts), which represents the largest volume of Brazil's litigation.

Its civil servants and magistrates are hired by public examination, although there are other types of employment, such as those requisitioned from other bodies, commissioned workers, outsourced workers, trainees and participants in social projects. Civil servants who work in the jurisdictional OUs are judicial technicians and analysts, whose basic education requirements are secondary school or equivalent technical course and higher education, respectively.

The WG was made up of technicians and managers. In total, there were 27 technicians representing the OUs, plus administrative managers from the jurisdictional and certification areas according to NBR ISO 9001:2015, who coordinated the meetings. In addition, there were guests from support areas, mainly technology. Meetings were face-to-face and took place in the second half of 2019. The aim was to discuss with the technicians improvements to their work processes, in a participatory way, based on the administrative routines (ADRs), trying to bring them closer to the real work they do.

Secretaries presented their work processes, which were predominantly digitalized. System used was eJUD, developed by the court itself. It was in the transition phase to the single electronic system developed by the NCJ: the PJe. This came with the promise of unifying procedures nationwide, as well as using artificial intelligence, making it faster.

At these meetings, there was an exchange of experiences between the actors of the OUs, whose work processes varied according to the way they were done and the rules established by their respective judges. In this way, the WG created the opportunity to make more consensual improvements to work processes. These proposals for improvements were then taken to senior management for evaluation as to whether they should be implemented.

Researchers took part in four meetings and collected information about the tasks, which was noted down for later analysis. After each meeting, she reviewed these notes and identified points that converged with literature on work-related constraints. The researcher then chose the "analysis situation" together with the WG managers, selecting a certified and digitized OU second instance, as proposed in the study.

In the development of the "pre-diagnosis", the information, from the WG meetings, was categorized according to the constraints identified based on clippings from the speeches of the workers participating in the WG, in convergence with concepts collected from the literature (Abrahão *et al.*, 2009).

Figure 2 - Constraints identified from workers' speeches

SYSTEM	INTERPERSONAL RELATIONS	RELATIONS WITH EXTERNAL USERS	ORGANIZATION OF THE WORK PROCESS	COMMUNICATION
Need for improvements in eJud	With judges and secretaries, heads of 1st instance offices	Telephone service	Need to organize a new work process: Virtual sessions	Between civil servants and DGTEC
Concern about the transition of the PJe Implementation	With Judge and advisors of the 2nd Instance		Need for extra staff to digitize remaining physical processes	Among servers of the 2nd instance - office and OU studied
Deficiency or lack of reports	Office – cognitive work x secretariats – mechanical work		Authorization to record sessions	Between 2nd instance and 1st instance servers

SYSTEM	INTERPERSONAL RELATIONS	RELATIONS WITH EXTERNAL USERS	ORGANIZATION OF THE WORK PROCESS	COMMUNICATION
Inclusion of automatic tasks = Artificial intelligence = e.g. making automatic joins.			Lack of staff	With the support of DGTEC
Need for WI FI			Improving the Use of Digital Mail	
			Clean up the collection	
			Provide home office/remote access for secretaries	
Definition of another day for system update			Difficulty in standardizing procedures that vary according to each judge	
Need for a larger number of people to give the system the real expected speed				

This approach took place before the pandemic and several of these work processes have been modified with home office. In some situations, solutions were provided, but new constraints were also created. This demonstrates the unpredictability of human work and the need for it to continue despite the unexpected.

During the period of 100% remote emergency work, employees discussed work issues in a closed group on the organization's internet social network. At this point, researcher used these messages to analyze clippings from these dialogues and was able to observe that the main issues concerned the malfunctioning of the system, especially its slowness and repeated interruptions. This was the cause of many complaints, as the civil servants had to maintain their productivity despite the inefficiency of the system, which caused them a great deal of anxiety.

In this context, human becomes the center of possibilities for transforming work. According to the concept of ergology (Schwartz, 2016), the work to be done depends on the ability of the worker, whether manager or technician, to “make use of themselves” negotiating with themselves and with the collective possibilities for the work to take place within the established norms. This theoretical approach to understanding work has become fundamental, especially in the service sector, as it is becoming increasingly immaterial and intellectual.

The “systematic observations” included “surveying the characteristics of the population and the work realized”. The selected OU is part of the 2nd Instance of the Judiciary and has seven civil servants, one of whom is a secretary and his replacement, and five civil servants who process cases, plus two trainees. It serves five offices, each made up of the judge in charge and five assistants. All the assistants are appointed by the respective judge and receive additional positions of trust. There is a presiding judge of the Chamber, who appoints the secretary, who in turn appoints his replacement, both of whom receive additional remuneration.

Regarding the certification process in the 2nd instance, up to that point, the OU was the only one certified. In this context of quality management, the OU's strategic objective was to control its overall backlog through the “Reports of cases by location” indicator, with annual targets set by the NCJ. In fact, the OU had been achieving its targets and was in first place in

this regard.

Information about the OU's tasks was obtained from its administrative routines and was developed together with the Organization's certification unit. Its main work processes were classified into three categories: receiving and sending documents, organizing trial sessions, and managing OU studied. The entire team worked in these three categories, although the first was the main responsibility of the processing staff, while the second and third were the responsibility of the managers.

In September 2021, the work became hybrid with a remote work rotation schedule. The researcher made her first visit to the OU for a free observation visit. The manager, a processing staff member, and an intern were present. The researcher introduced herself and presented her study proposal, clarifying any questions that arose. It could be observed a good relationship between them. There were no face-to-face service to the external public, which was substituted by virtual service through the "virtual counter" (a computerized system developed during the pandemic by the Organization for virtual service to the external public).

Frequent interruptions to the manager's work were observed due to WhatsApp and email messages from office assistants. The researcher noticed the manager's concern about the prompt response to these contacts. She herself commented that could not see the message and not respond immediately, concluding that it was "her way".

It was clear that her work required high cognitive demands, mainly due to the level of attention required to avoid failures and rework. However, from the researcher's point of view, the frequent interruptions would be incompatible with the high level of cognitive processing required for her activity. To this end, the manager developed her own operational strategies, one of which was not letting messages accumulate, which depended on her prompt response. In the interviews, she reported feeling overwhelmed by these frequent contacts both during and outside of her working hours.

The manager's relationship with the two processing staff and the intern present went well, although the manager was anxious about the prompt response to the demand that arose at the virtual counter. This demonstrated to the researcher that the manager had a high degree of centralization of work, which she considered to be inherent to her position of trust. This centralizing aspect of work was corroborated in her interviews and those of the other participants, who demonstrated admiration and respect for her work, but were concerned about her health.

About a month later, the researcher participated as an independent observer in an external audit meeting for the certification of the OU and observed that external auditor maintained a courteous and respectful attitude towards the employees. He reported that had been involved in the certification of the OUs since the institution of the certification process in the Organization, about 15 years ago. This OU was the only one from the 2nd level that was certified. It had been successful in its previous external audits. Due to the challenges they faced with the renewal of almost the entire team, in addition to the start of emergency remote work, he was concerned that the OU would not maintain its position in the productivity ranking (established by the NCJ at the national level). However, despite the challenges, they maintained their productivity.

The researcher also participated as an independent observer in a team meeting, which took place a few weeks after the external audit meeting, identifying positive personal relationships. Although statements of the manager and ~~the~~ substitute predominated, everyone had the opportunity to participate. One employee, who was part of a risk group and still working from home, commented that she knew most of the team through online meetings.

At the end of the "systematic observations" process, a questionnaire - QHWSA (Brito *et al.*, 2013) was applied to the seven employees and answered by six of them.

According to Figure 3, the demographic data obtained from the information of the employees who answered the QHWSA can be seen.

Figure 3 – QHWSA: Participant demographics data

PARTICIPANTS	AGE	SEX	MARITAL STATUS	PEOPLE TO CARE FOR	TIME IN THE STATE JUSTICE	TIME IN THE SELECTED OU	EDUCATION	POSITION	POSITION OF TRUST
P1	46	Female	Married	No	12	2	Law	Technical	Yes

PARTICIPANTS	AGE	SEX	MARITAL STATUS	PEOPLE TO CARE FOR	TIME IN THE STATE JUSTICE	TIME IN THE SELECTED OU	EDUCATION	POSITION	POSITION OF TRUST
P2	51	Male	Divorced	No	26	26	Law	Analyst	Yes
P3	36	Female	Married	Yes – little daughter	2	2	Law	Technical	No
P4	51	Male	Married	No	12	12	Law	Technical	No
P5	51	Female	Married	Yes – elderly mother and teenage daughter	24	2y 6m	Law and Social Communication	Technical	No
P6	56	Female	Divorced	Yes – eldery mother	36	1	Law	Analyst	No

To complete the qualitative research carried out, the researcher interviewed the participants, and the results can be seen in Figure 4, which summarizes the findings of the interviews, systematic observations and the WG, thus closing the "diagnosis" for the development of "recommendations for improvements".

Figure 4 – Relationship between categories identified in the WG and interviewees' statements and recommendations

	P1	P2	P3	P4	P5	P6	"PARTICIPANTS' SPEECHES"	RECOMMENDATIONS FOR HUMANIZING THE ORGANIZATION'S WORK MANAGEMENT
Information Systems	X	X	X	X	X	X	- "I preferred it, I thought it was more reliable. I was afraid that the system at home would crash during the session (...)"; - "One of these employees in the risk group almost went crazy at the beginning of this year. Because she was already desperate because she couldn't work. She was getting nervous. (...). She changed internet connections, asked for a different provider, but I think there was a blockage in the system that was causing her problems. It wouldn't let her access, or it was very slow. She opened several calls and they didn't resolve them."; - "There are days when the RAS (remote access service) is impossible. It's unstable, so you have to restart it, I try, right, first. I turn it off, restart it to see if it comes back. It took me 2 hours to do three jobs."	- Improve the quality of structural inputs for work processes (internet connection, full functioning and effectiveness of computerized systems used)
Interpersonal relationships with the internal public	X	X		X	X	X	- Sometimes, on the weekend or on a holiday, a lawyer from another state, where it wasn't a holiday, would call. Sometimes, it's not a problem, no, it's to ask for something. To ask for an inclusion in the agenda, to ask for something silly, a conclusion. Instead of calling the OU, they concentrate everything...	- Raising awareness among leaders about the application of ergonomic concepts in organizational work processes - Fostering interpersonal relationships with mutual respect, cooperation and teamwork

Interpersonal relationships with the external public	X							- No opportunity for improvement was identified in this aspect due to the fact that the period analyzed corresponded to the pandemic, in which all communication with the external public was concentrated on the manager. - On the other hand, during the period mentioned, an area called "Virtual Counter" was developed by the technology sector, which was considered a solution to the problem related to the lack of communication with the external public.
Work organization	X	X		X	X	X		- Encouragement and mobilization on the application of ergonomics in work processes, on rhythms, breaks, time pressure, among others, aiming at improving production with a positive impact on the health and safety of workers; - Strengthening the Organization's pro-ergonomic culture; - Updating of RASs; - Analysis of the arguments for and against the implementation of the hybrid work model post-pandemic.
Integration with organizational functions	X	X		X	X	X		- Promote the certification of offices as a way of ensuring the strengthening and fluidity of communication within the Organization.

5 DISCUSSION

According to Abrahão et al (2009), it is important to understand work "from the inside" in order to understand the categories of constraints identified in this study. The use of ergonomic concepts can function as a tool in the process of analysis and construction of recommendations for the well-being of workers. It should cover the work physical aspects; characteristics of the population; cognitive components and the organization, involving the division of labor, hierarchical levels, communication, production standards, rules and procedures, quality and productivity criteria, organization of times, rhythms and goals.

This approach prioritizes the understanding of work activity in a real context, in an inductive manner, based on the field as a place of investigation and knowledge production (Guérin *et al.*, 2001; Lacomblez, 2001; Teiger, 1998; Wisner, 1987). It is proposed to emphasize what occurs between the execution of the work, demands of the tasks and characteristics of the workers. With this, a look at the concrete activity is assumed, in an attempt to integrate the knowledge originating from the field and the theoretical knowledge, valuing the specificity and singularity of human behavior at work (Lacomblez, 2001).

Therefore, in a work situation, it is possible to distinguish the aspects that favor or do not favor a healthy, safe and productive work environment. However, it should be borne in mind that there is usually no single causality for the phenomena. With this ergonomic knowledge in mind, the researcher began her analysis by categorizing the constraints identified from the WG.

From this initial list, the category related to the available "information systems", there was a proposal for improvements to eJUD with more automated options and remote work. Due to the abrupt need for emergency remote work, issues raised in interviews and in social media dialogues were identified. Although there was a consensus on the availability of more expanded remote work, in practice, other issues arose, such as slowness and repeated interruptions of the systems.

This inefficiency of the systems became a cause for workers' concerns and complaints who needed to maintain their productivity, causing anxiety in many of them. This can be confirmed by Baudin and Nusshold (2018), who already considered the social and political dimensions in which the implementation of ICTs is inscribed. They emphasized that negative consequences in terms of health for those who were faced with these work situations should not be disregarded.

The implementation of ICT in work processes interferes with the work organization and occurred at the same time as significant developments in the concept of health and in the search for work that is not a source of suffering, illness, injury and even death. Health is no longer a state and is now considered an objective, a process linked to life potential, of individual and collective construction. Therefore, it is not only a matter of seeking conditions that prevent the degradation of health, but also those that favor its construction (Laville and Volkoff, 1993).

According to Baudin and Nusshold (2018), it is important to reestablish the complexity and richness of human work in the design of new digital workspaces and to monitor the different forms that digitalization takes so that it can be built based on real work and people's experience. So, these developments would not be in the service of accelerating the pace, overloading work and losing meaning, but of cooperation, health and the results of work teams.

Thus, the more technology evolves, the more challenges are encountered in facilitating its use, requiring systems to be adapted to the needs of users. In this context, the application of EWA is identified as a tool to understand the strategies used by workers when confronting work, in an attempt to minimize or avoid possible negative repercussions on their health, safety and productivity.

In this context, the researcher proposal identified for this category concerns improving the quality of the structural inputs of work processes (internet connection, full functioning and effectiveness of the computerized systems used). It is important to consider the intra and interpersonal and production variabilities that need to be identified in order to propose improvements. Thus, the objective of ergonomics is to try to bring the prescribed work closer to the real work, enabling the transformation of work into an environment that guarantees reliability, safety and health (Borges and Menegon, 2017).

This can be seen in this study, since the inefficiency of the Organization's information

systems caused constraints to the performance of work. This situation led workers, for example, to switch from day to night shifts, as a strategy to compensate for system failures, which could have negative impacts on both the reliability of their work and their health. It is important to contextualize these findings at the time of the study, when the COVID-19 pandemic was occurring and Organization's information systems needed to respond to remote work on an emergency basis.

Another constraint identified from the WG concerns “interpersonal relationships”. These points are considered fundamental to the training and awareness of leaders. According to concepts of organizational ergonomics, it is important to emphasize relationships of trust and cooperation in order to facilitate teamwork (Giannini et al, 2019).

According to Scherer *et al.* (2009), the construction of the collective through the interpersonal relationships that compose it depends on the presence of a minimum of stability and a certain permanence in the organization, since trust and cooperation are built over time. This concept is observed in the case of public servants, due to their functional stability, and can be an incentive to the development of stronger interpersonal relationships.

However, in the case of the OU studied, most of its staff was replaced and the majority of employees had been working at the OU for less than two years. In addition to this situation, due to social isolation, two employees from the risk group only maintained contact with the team virtually.

This issue was identified in the statements of the newly arrived employees. They were concerned about demonstrating their work, but believed that the trust of their management and colleagues in their work would only come with time. This concern may be based on the understanding that others do not always act in accordance with what we expect, and doubt and uncertainty emerge as elements that depend on cooperation and trust that are built over time through interpersonal relationships (La Guardia and Lima, 2019).

However, during the field research, positive points were mentioned regarding interpersonal relationships. Cooperation was highlighted in many of the interviewees' statements, and can be considered a result of the worker's search for quality work and health maintenance. In this case, the management profile developed by its leaders ensured this path. Oliveira (1997), in a study on quality programs, argues that one of the principles of quality would be cooperation in the relationship between bosses and subordinates and among workers. The substitute, in particular, was often mentioned in this aspect, mainly in the training of employees through virtual means.

According to Abrahão et al (2009), every organization is also permeated by power relations and the ethics of responsibility and solidarity are fundamental to guide actions and build collectives. Thus, management is an important element that can enable mutual help and exchanges with priority given to flexibility and continuous restandardization.

Although the team prioritized these healthy interpersonal relationships, the hierarchical organizational culture could not fail to be recognized. According to Gomes (2024), this hierarchy emerges as an apparent or subterranean mark, based on the legacy of authority and power. In the case of this research, hierarchical management permeated the team's daily routine, unbalancing the internal organization of the OU.

Regarding “organization of work”, one constraint identified by the researcher was the lack of periodic breaks. Failure to recover the body can cause, for example, muscle fatigue. The breaks can be included not only for physical but also cognitive human components. Here, excessive time spent working that requires concentration, attention and decision-making can have negative consequences for the health, safety and reliability of the work performed. According to Ferreira (2015), breaks should be considered both in the organization and in the appropriation of work by the worker through their operational strategies.

It is in this aspect that “errors” that occur in the day-to-day work can be reviewed. Rather than blaming the worker, ergonomics suggests reviewing the management system to delve deeper into the organization of work that can be the trigger for “failures”. In the case of the OU, the work pace identified by the motto: “speed formula one and zero error” can lead to conflicting results based on the ergonomic analysis.

In this regard, one can consider the reflections that Pinheiro (2020) addresses in his study on the management model of the “New Public Administration” implemented in the Judiciary. In this model, the interference of “Taylorism, Fordism, Toyotism and Post-Fordism” is identified, with national goals being established for the judiciary by the NCJ. The quantitative results are presented in publications such as “Justice in Numbers” and controlled by

"Performance Control Programs of the Judiciary".

The objective is to maintain the quality of service provision. However, it is noteworthy that, in parallel with these organizational changes in the Judiciary, there has been an increase in cases of "Moral Harassment" and, thus, questions arise as to how this management model can negatively influence the health of judges.

In this "work organization" category, the lack of personnel was another point highlighted in the WG. In the case of the OU studied, this issue arose at the end of 2019, when five of the seven OU employees retired. According to Frufrek and Pansanato (2017), this change can generate work overload for the members who remain in the sector, in addition to the loss of human capital of the Organization, with a possible reduction in productivity.

In addition to the replacement of most of the OU team, in March 2020, the pandemic occurred, with work processes and training for most of the team moving to virtual. This led to difficulties not only due to changes in operational procedures, but also due to malfunctioning of the computerized systems used. These events were aggravated by the abruptness in which they occurred. There was no time for preparation for either internal or external users, causing many people to feel distressed due to the feeling of incapacity. However, according to Pinheiro (2020), these considerations had been occurring with the implementation of ePJ and were aggravated by the untimely occurrence of the pandemic.

According to reports from the interviewees, there were months of work overload, with tasks also being performed outside of business hours. Little by little, the procedures were adjusted based on the arrival of new members, the training instituted, and the team's ability to overcome the challenges encountered. According to interviewees, the pace of work had already slowed down by the second half of 2021, gradually returning to normal.

According to Buenano and Triska (2020), factors such as recognition (of work performed, from bosses and superiors, society, customers, users and consumers), professional growth (career, creativity, skills development, training, opportunities and incentives) are points that activity ergonomics addresses and may have contributed to the team's success.

Although several participants reported concerns about working in a certified OU, most recognized this experience as positive for the organization of work. They realized the importance of updating administrative routines and holding team meetings, which could be compared to critical analysis meetings of the certification.

~~A~~According to Souza (2019), Ergonomics can act as an enabler of the Quality Management Systems (QMS) certification process. To this end, Ergonomics uses its main objective, which is to understand the interactions between human beings and other elements of a system, applying methods to design the human well-being optimization and the overall performance of the system.

An example of the impact of the lack of prescriptions (ADRs) on the proper functioning of work would be the development of videoconference hearings during the pandemic. In the OU studied, although it was a certified unit, there was no provision for "videoconferencing organization" in its ADRs. It was a new work process developed by the OU team with all its inherent difficulties.

There were references from the interviewees that the operational procedures vary according to the way each judge works, and two main points were observed in this aspect, both positive and negative. The positive point was the leadership identifying and specifying a worker for each office. This facilitated the fulfillment of their variability, respecting the competence of workers and favoring the adaptation of work to their capabilities. This approach considers the concept of Ergonomics that seeks to rescue the human being from the condition of "adjustment variable" to a role of co-constructor of their work (Abrahão *et al.*, 2009).

The negative point identified was the occurrence of recurring and untimely requests from the offices that disrupted the work routines of the OU studied, causing rework and overloading the team. This phenomenon points to something broader in the logic of operation of the judicial bodies, which are marked by a hierarchical organization of work, with relationships between managers and subordinates based on discipline, obedience and control at various levels, governed by rules and regulations (Arenas, 2013).

We can observe re-standardizations created by workers in order to maintain their commitment to meeting the objectives of their work. They begin to make arbitrations by mobilizing their experience, knowledge and values. It is through the re-standardization of the work environment that the worker inserts his/her rules, giving meaning to the activity and

trying to protect his/her health and safety, although this is not always possible (Pinheiro, 2020).

Another issue identified was the demand for continuous availability of employees, even outside working hours with home office. This occurred mainly with the manager and her substitute. According to Pereira (2020), these are challenges encountered with the digitalization of work, which can lead to the fusion of personal and professional life, social isolation, the need for self-management and the lack of clear delimitation between work and rest time, thus causing psychological and physical overload in workers. Despite this, considering the pros and cons of remote work, employees began to recognize the hybrid regime as a better option for organizing work.

The issue of "communication" at the interface between the OU and other units was identified as a constraint in the WG. Regarding communication with the offices, the operational strategy created by the OU managers in which each office was served by a specific employee was positive. However, issues related to the Organization's hierarchical culture remain an obstacle to improving this interface.

Based on all the data compiled so far, we have reached the final stage of the EWA on the "recommendations for transformation" of work. Based on these results, the aim is to propose actions to promote humanized management of the Organization's work processes in an interdisciplinary manner and in accordance with ergonomic aspects. These recommendations were validated by analyzing their applicability and usefulness for the Organization, with the issuance of a ratifying statement by Senior Management managers.

It is important to emphasize that, when proposing improvements to work processes from ergonomic aspects, these proposals must be based on an analysis of the activities performed by workers, which implies valuing the subject as an agent. These improvement actions therefore aim to consider the insertion of each subject in their trajectory, according to the possibilities of increasing technologies, enterprises and public policies that help to foster innovations (Abrahão *et al.*, 2009).

Furthermore, the development of an ergonomic action should not seek to judge the strategies of organizations, but rather to understand what is happening and understand the reasons for the choices. Since the objective is to adapt the work to the majority of the population, it is important to know the obstacles in order to propose replacements.

Therefore, when developing an ergonomic action, elements are sought that allow for the transformation of work, and production of knowledge. From this perspective, ergonomics has been developing, adopting as a reference the notion of variability, the distinction between task and activity, and the regulation of actions associated with the recognition of workers' competence.

To this end, the researcher based her work on recommendations that emerged inductively, following an ascending path, through the EWA. She started from the employees of a OU to those of the Senior Management and constructed these recommendations in the cultural and political-economic-social context of the Organization.

A flowchart representing the master line of idealization of recommendations from an ergonomic perspective was then proposed. Ergonomic concepts identified in the work developed by the team at the studied OU were considered. These positive points can be considered as opportunities for improving work in the Organization and are: personal and production variability; operational strategies; task x activity; collaboration, cooperation and coordination; autonomy; flexibility; predominant cognitive work; leadership.

The filters used to select the propositions applicable to the situation were organized according to the organizational hierarchy in order to offer practical suggestions regarding the concepts listed above for improving the Organization's work processes, including certified OUs:

- STRATEGIC LEVEL: Encourage the maintenance of the managers and technicians WG ~~of~~ in updating the administrative routines of certified OUs;
- TACTICAL LEVEL: Allow contributions and adjustments to work processes through ergonomic intervention;
- OPERATIONAL LEVEL: Promote teamwork through participatory work meetings, bringing them closer to critical analysis meetings in accordance with ISO 9001 certification.

In short, ergonomics, when systematically integrated into corporate management, not only improves the health and safety of workers, but also contributes to operational efficiency, quality of work and the sustainability of the company.

6 CONCLUSION

The traditional priority of organizations to create value for their direct users has been expanded to include humanistic, social, ethical and environmental considerations. This article describes the activities carried out to develop an analysis of the integration of ergonomics concepts into the management system of the judiciary in Brazil. The work of listening to judicial workers was carried out in a unit that provides jurisdictional services to society. The period planned for collecting data in the field coincided with the occurrence of the Covid-19 pandemic, impacting planning, and was concluded at the end of the pandemic.

The main limitations present in the research are inherent to the methods chosen. The systematic review of the literature does not cover all the possibilities of ergonomic factors in the workplace, the application of the EWA in a jurisdictional unit depends on the subjectivity of the researcher in the elaboration of the instrument and the peculiarity of the profile of the sample used.

Among the applications of this work, priority can be given to those aimed at supporting and guiding organizational practices in the Judiciary Branch, through ergonomics. The aim is to reduce ergonomic risks and harm to the health of its workers. In this sense, the ergonomic factors identified and validated in this research can be considered and included in the recommendations for improving work processes.

Although the topic of ergonomic risks has long been discussed in the scientific community, at universities and in organizational practices, there are still no structural actions to integrate ergonomic aspects into Judiciary management systems.

The contribution of this study – with impacts on theory and organizational practices – is related to the advancement in the identification of knowledge regarding the contribution of ergonomics to improving productivity and quality and ensuring the health and safety of Judiciary workers.

The premise presented at the beginning of this article and confirmed is that there would be benefits to the health, safety and productivity of workers with the introduction of ergonomic concepts in the practices of using the computerized and certified management system of the judiciary services.

It can be inferred that the continuity of the managers' WG and the continuing education practices on ergonomics in development in the organization studied favor a continuous transformation in the organization's culture.

As a suggestion for new research in continuation of the current one, it is assumed that similar studies in other State Courts and also in Federal Courts would be useful, contributing to consolidating assertive and applicable suggestions and conclusions.

REFERENCES

Abrahão, J., Sznelwar, L., Silvino, A., Sarmet, M. and Pinho, D. (2009), *Introdução à Ergonomia: da prática à teoria*, Blucher, São Paulo.

Arenas, M.V.S. (2013), *Assédio moral e saúde no trabalho do servidor público do judiciário: implicações psicossociais*, Tese de Doutorado em Administração, Universidade Federal do Rio Grande do Sul, Escola de Administração, Porto Alegre, RS. https://doi.org/10.32467/issn.2175-3628v23n1a14

Associação Brasileira de Normas Técnicas (2015), NBR ISO 9001, Rio de Janeiro.

Baudin, C. and Nusshold, P. (2018), "Digitalização e evolução do trabalho real", *Laboreal*, Vol. 14, No. 2. https://doi.org/10.4000/laboreal.582

Borges, F.B. and Menegon, N.L. (2017), "A Ergonomia favorecendo a confiabilidade humana em uma refinaria de petróleo", *R. Ação Ergon.*, Vol. 12, No. 2, e201705. https://doi.org/10.4322/rae.v12n2.e201705

Braun, V. and Clarke, V. (2006), "Using thematic analysis in psychology", *Qualitative Research in Psychology*, Vol. 3, No. 2, pp. 77–101. https://doi.org/10.1191/1478088706qp063oa

Brito, J., Gomes, L. and Oliveira, S. (2013), INSATS: uma contribuição para Saúde do Trabalhador, FCEP/UP, Porto: FCEP/UP, 2013.

Buenano, L. and Triska, R. (2020), "A Ergonomia como alternativa teóricometodológica em prol da Qualidade de Vida no Trabalho no contexto Pandêmico da COVID-19", in *Colóquio Internacional de Design*. https://doi.org/10.5151/cid2020-04

Creswell, J. W. (2007), Investigação qualitativa e design de pesquisa: escolhendo entre cinco abordagens, 2. Ed, Sage Publicações.

Denzin, N.K. and Lincoln, Y.S. (2011), *The Sage Handbook of Qualitative Research*, 4. ed., Sage, London.

Du Marais, B. and Gras, A. (2016), "La cyberjustice, enjeu majeur pour la qualité de la justice administrative", *Revue française d'administration publique*, França, Vol. 3, No. 159, pp. 789-806. https://doi.org/10.3917/rfap.159.0789

Falzon, P. (1988), La construction des connaissances em ergonomie: élements d´épistemologie, in Dessaigne, M.-F. and Gaillard, I. (Ed.), *Des évolutions en ergonomie,* Octarès Éditions, Toulouse, France, pp. 211-224.

Ferreira, M.C. (2015), "Qualidade de Vida no Trabalho (QVT): do assistencialismo à promoção efetiva", *Laboreal*, Vol. 11, No. 2. https://doi.org/10.4000/laboreal.3552

Flick, U. (2015), Introducing research methodology: A beginner's guide to doing a research project, 2. ed., Sage, London.

Frufrek, G.L. and Pansanato, L.T.E. (2017), "Rotatividade de Pessoal: Pesquisa com Profissionais de Empresas Brasileiras de Desenvolvimento de Software iSys", *Revista Brasileira de Sistemas de Informação*, Vol. 10, No. 2, pp. 05-29. https://doi.org/10.5753/isys.2017.333

Gaulejac, V. (2007), "Gestao como Doença Social: ideologia, poder gerencialista e fragmentacao social", Ideias e Letras, São Paulo.

Giannini, R., Sznelwar, L.I., Uchida, S. and Lancman, S. (2019), "A cooperação como instrumento de enfrentamento do real: o caso dos magistrados do trabalho no Brasil", *Laboreal*, Vol.15, No.1. https://doi.org/10.4000/laboreal.1202

Godoy, A.S. (1995), "Introdução à pesquisa qualitativa e suas possibilidades: Uma revisão histórica dos principais autores e obras que refletem esta metodologia de pesquisa em Ciências Sociais", *Revista de Administração de Empresas*, São Paulo, Vol. 35, No. 2, pp. 57-63. https://doi.org/10.1590/s0034-75901995000200008

Gomes, A.O., Alves, S.T. and Silva, J.T. (2018), "Effects of investment in information and communication technologies on productivity of courts in Brazil", *Government Information Quarterly*, Vol. 35, No. 3, pp. 480–490. https://doi.org/10.1016/j.giq.2018.06.002

Gomes, G.H.S., Lemos, R.R., Nascimento, L.L. do, Marra, A.V. and Souza, M.M.P. de. (2024), "Cultura organizacional em organizações públicas: uma revisão sistemática", *Revista da FAE*, Curitiba, Vol. 27. https://doi.org/10.29327/caces.804383

Gregório, A. *et al.* (2019), *Inovação no judiciário: conceito, criação e práticas do primeiro laboratório de inovação do poder judiciário*, Blucher, São Paulo. https://doi.org/10.5151/9788580393941-03

Güérin, F., Kerguelen, A., Laville, A., Daníellou, F. and Duraffourg, J. (2001), *compreender o trabalho para transformá-lo: a prática* da *Ergonomia*, 1. ed., Blücher, São Paulo.

Lacomblez, M. (2001), "Analyse du travail et élaboration des programmes de formation professionnelle", *Relations Industrielles*, Vol. 56, No. 3, pp. 543-578. https://doi.org/10.7202/000082ar

La Guardia, M. and Lima, F. (2019), "Cooperação e relações de confiança: a construção da segurança e da saúde no trabalho de alto risco", *Laboreal*, Vol. 15, No. 1, pp. 1-23. https://doi.org/10.4000/laboreal.1331

Laville, A. and Volkoff, S. (1993), "Age, santé, travail: le déclin et la construction" in Ramaciotti, D. and Bousquet, A., *Ergonomie et Santé. Actes du XXVIII ème congrès de la SELF*, UMTE/ECOTRA, Genève: UMTE/ ECOTRA, pp. 24-35. https://doi.org/10.4000/pistes.3147

Leplat, J. (2002), "De l'étude de cas à l'analyse de l'activité", *Perspectives Interdisciplinaires Sur Le Travail et La Santé*, 4–2. https://doi.org/10.4000/pistes.3658

Mohammed, M., Ahmed, E.M. and Anantharaman, R.N. (2017), "The effect of TQM intention to implement on work performance in Oman's Ministry of Justice", *World Journal of Entrepreneurship, Management and Sustainable Development***,** Vol. 13, No. 3, pp. 223–242. https://doi.org/10.1108/wjemsd-04-2016-0020

Muniz, H.P., Brito, J., Souza, K.R. de, Athayde, M. and Lacomblez, M. (2013), "Ivar Oddone e sua contribuição para o campo da Saúde do Trabalhador no Brasil", *Rev. Bra. Saúde Ocup*, Vol. 38, No. 128, pp. 280–291. https://doi.org/10.1590/s0303-76572013000200015

Oddonne, Y., Re, A. and Briante, G. (1981), Redécouvrir l'expérience ouvrière: vers une autre psychologie du travail? Éditions Sociales, Paris.

Oliveira, J.A.S. (1997), A conquista da qualidade. Manual do programa SEBRAE da qualidade, Ed. SEBRAE, Brasília.

Orrillo, Y.A.D. and Figueiredo, G.O. (2024), "Neoliberalismo e gerencialismo: impactos no trabalho, formação e subjetividade de agentes comunitários de saúde", *Trabalho, Educação e Saúde*, Rio de Janeiro, Vol. 22, e02802257. https://doi.org/10.1590/1981-7746-ojs2802 .

Pinheiro, S. (2020), *Digitalização e Transformações do Trabalho Real: estudo de caso de um serviço público*, Tese de Doutorado em Psicologia, Faculdade de Psicologia e de Ciências da Educação, Universidade do Porto. https://doi.org/10.22355/exaequo.2020.41.12

Procopiuck, M. (2018), "Information technology and time of judgment in specialized courts: What is the impact of changing from physical to electronic processing?", *Government Information Quarterly*, Vol. 35, No. 3, pp. 491–501. https://doi.org/10.1016/j.giq.2018.03.005

Semensato, B.I. (2011), "Análise comparativa entre as metodologias de pesquisa científica e as metodologias da ação ergonômica a partir de um constructo teórico", *Ação Ergonômica,* Vol. 8, No. 1, pp.33-47. https://doi.org/10.5151/16ergodesign-0066

Serbena, C.A. (2013), "Interfaces atuais entre a E-Justiça e a Q-Justiça no Brasil", *Revista de Sociologia e Política***,** Vol. 21, No. 45, pp. 47–56. https://doi.org/10.1590/s0104-44782013000100005

Scherer, M.D.A., Pires, D. and Schwartz, Y. (2009), "Trabalho coletivo: um desafio para a gestão em saúde", *Rev Saúde Pública*, Vol. 43, No.4, pp. 721-25.

Schwartz, Y. (2016), "Trabalho e uso de si", *Pro-posições*, Campinas, SP, Vol. 11, No. 2, pp. 34-50.

Silveira, L., Wazlawick, R.S. and Rover, A.J. (2015), "Assessing the Brazilian e-justice interoperability model", *IEEE Latin America Transactions*, Vol. 13, No. 5, pp. 1504–1510. https://doi.org/10.1109/tla.2015.7112008

Souza, I.T. (2019), A contribuição da Ergonomia na certificação de Sistemas de Gestão da Qualidade: A manutenção predial de uma organização social de P&D, UFRJ / COPPE, Rio de Janeiro.

Teiger, C. (1998), "El trabajo, esse obscuro objeto de la Ergonomia" in Castillo, J. and Villena, J. (Org.), *Ergonomia: conceptos y métodos*, Editorial Complutense, Madrid.

Valverde, C. (1998), A avaliação de programas de formação profissional contínua: Ensaio para a compreensão das concepções orientadoras, reflexões a partir de um estudo de caso. 1998. Tese de Mestrado, Universidade do Porto, Porto, Portugal. https://doi.org/10.21011/apn.2023.3405

Wisner, A. (1987), *Por dentro do trabalho: ergonomia: método & técnica,* tradução: Flora Maria Gomide Vezzá, FTD, Oboré, São Paulo.

Yin, R.K. (2016), *Pesquisa qualitativa do início ao fim*, Penso, Porto Alegre.

Yparraguirre, I. R. (2018), "The contribution of ergonomics to the effectiveness of the public service: analysis of the implementation of the Electronic Judicial Process", *Brazilian Journal of Operations & Production Management*, Vol. 15, No. 1, pp. 127–136. https://doi.org/10.14488/bjopm.2018.v15.n1.a11

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