



## ERGONOMIC WORKING CONDITIONS OF THE ADMINISTRATIVE STAFF OF A PUBLIC SCHOOL

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**Abstract:** the article in question deals with the professional working conditions of the administrative area of a public school in Belo Horizonte. The AET (Ergonomic Analysis of Work) was used which highlighted important issues in the employment context of these professionals related to the organization of work and the lack of investment in equipment and materials essential to the execution of tasks, frequent rework, dissatisfied customers, and practices bullying (by superiors and customers) among others. At the conclusion points out some suggestions that may alleviate the perceived problems and improve the way of carrying out the tasks proposed.

**Key-words:** ergonomic analysis, administrative assistants work, ergonomics.

### 1. Introduction

Work in schools has very peculiar characteristics, but in general terms it can be compared to that carried out in other companies that provide services to the community, as there are professionals who perform certain tasks aiming for a result desired by the client. To perform their tasks satisfactorily, professionals need the company to provide them with materials, instruments, equipment and satisfactory working conditions.

Knowing the context of this work, from the approach of ergonomics of the activity, allows us to elucidate the difficulties faced by this population of workers and discuss some possible suggestions for actions to be taken to reduce such difficulties, to also preserve their physical and mental health and improve customer service.

The administrative sector of the studied school is responsible for providing support to teachers and students, ensuring that the school functions properly. There, tasks essential to the proper functioning of the school institution are carried out. Considering the need for good working conditions for good performance, a study is necessary to understand this context, which is the objective of this article: to know the work – its characteristics, difficulties and other aspects that are present there, influencing positively or negatively - of administrative assistants at a public school.

This study was created in response to a request from the director of the researched institution. Based on the observation of numerous complaints from the user community regarding the

quality of services provided by the sector in question. Thus, the study aimed to understand the work context and the difficulties faced by professionals who work there.

## 2. Theoretical Reference

Ergonomics is a discipline that can be considered young, as it emerged in the 1940s and constitutes an approach to human work and its interactions in the social and technological context, aiming to understand the complexity of the work situation and the multiplicity of factors that make it up (Abrahão and Pinho, 2002).

The Activity Ergonomics method, Ergonomic Work Analysis (AET), has consolidated itself in the field of work sciences as an effective instrument to operationalize the perspective of understanding work in order to transform it (Ferreira, 2015).

AET (Ergonomic Work Analysis) is an instrument or a set of techniques that allows us to understand situated human behavior. It is also a method of action that allows you to understand the work in order to act to transform the situations where this work is carried out (Soares, 2011; Simoes et al., 2012).

When referring to studies of ergonomic working conditions in schools, it is common to find research related to the work of teachers (Servilha et. al, 2010; Vedovato and Monteiro, 2008; Branco et. al, 2011; Levy and Nunes, 2009; Motta et. al, 2012 and Almeida et. al, 2013), however, little has been written about the work of professionals responsible for the administrative services of these institutions. It is in this context that this study contributes to the understanding of the work context of these professionals in a public school to discuss possible actions that can be implemented so that these professionals have better conditions to carry out their tasks.

When carrying out a literature review, no ergonomic studies were found regarding the work carried out in the school administrative sector and, when ergonomic studies are sought in administrative areas of public organizations, it appears that they are focused on the analysis of physical aspects and aim to identify the factors that can make professionals physically ill, mentioning the musculoskeletal disorders to which the studied workers are exposed. An example of this approach is Araújo et. al (2008) who, based on the complaints expressed in the organizational diagnosis carried out by the Organizational and Work Psychology Commission in the administrative sector of the Regional Psychology Council 13th region, studied in detail the ergonomic, hygiene and safety aspects of work and concluded that there is a lack of adequate physical structure and equipment, factors that negatively influence the work environment and the satisfactory performance of tasks.

Another example of an ergonomic study in this sector that can be cited here is that of Melo et. al (2013) who studied the administrative sector of INMETRO (National Institute of Metrology, Quality and Technology) and detected that, in the studied population, there was a high rate of symptoms of musculoskeletal disorders in the last 12 months, with 27.2% manifesting in the last seven days and 25% have already been absent from work.

It is also worth highlighting the study by Nunes and Lins (2009) in a public sector which, although they did not directly address ergonomic analysis of work, were interested in knowing aspects different from those related to the physical environment that other studies presented. These authors were concerned with organizational issues and their effects on the feelings of pleasure and suffering of these employees when working in public service. From interviews, speeches were expressed in which factors of suffering were identified: the

difficulties imposed by the public service, hierarchical management and bureaucratic rationalization and as a factor of pleasure, the perception of success when achieving goals.

## **2. Methodology**

The research was carried out over 28 days in May 2015 and the theoretical-methodological model used in this research was the Ergonomic Work Analysis (AET), which consists of analyzing work in the context where it occurs and developing hypotheses after analyzing information collected in the field.

The framework adopted in this research is based on the model proposed by Guerin et al. (2001), which advocates the importance of analyzing the activity in a real work situation. This analysis aims to understand the procedures adopted by the worker to achieve the goals established by the company. It is important to interact with the worker about what, how, when, how much and for whom they do, in addition to considering the context of that work, the personal characteristics, experiences and training received by the workers whose work you are analyzing. After these analyses, the researcher seeks to transform work situations to provide improvements in the worker's interaction with their activity and also an increase in productivity for the company.

## **3. Results**

The context of this study is related to a public school institution in the city of Belo Horizonte, Minas Gerais. It is subordinate to the State Department of Education. Its staff consists of a director, a deputy director, an educational counselor, a secretary, 18 basic education assistants, 251 teachers, 10 general services assistants and four doormen.

The basic education assistants, whose work was studied, are 15 female and 3 male, ranging in age from 28 to 52 years old, with a length of service of 6 to 17 years, with 12 employees working only in this role (in this and also in other schools) and the others have already worked in private companies, in administrative roles. All have completed secondary education. Three are studying higher education (2 pedagogy and one business administration).

They work in the sector called secretariat. They are responsible for receiving, handling and archiving documents relating to students' school life, issuing transcripts, enrollment statements, transfers to other schools and other information for students, their families and the general public who frequently seek information about vacancies, procedures, periods for enrolling new students.

The opening hours of the aforementioned institution are from 7 am to 10 pm, from Monday to Friday, with 3 work shifts (corresponding to the students' 3 class shifts). The assistants' working hours are 6 hours a day, and these professionals are divided into: 5 assistants on the night shift, 5 assistants on the afternoon shift and 8 assistants on the morning shift. At the time of the research, an employee was on leave with a diagnosis of emotional disorders and did not participate in the research.

The way to enter this role is through a public competition, however, even though there is a demand for more professionals, the government takes a long time to formalize notices for such competitions. An alternative to temporarily meet this demand is the admission of both administrative assistants and teachers, through one-year contracts. This situation generates dissatisfaction and relationship difficulties between hired employees and public servants. The latter often adopt an authoritarian stance towards contractors and overload them with some tasks. There is no formal training or task prescription. Older employees train newcomers and

there is not always a homogeneous division of tasks within the group. The psychological climate is usually tense, there are many discussions regarding the unequal division of tasks, tolerance for delays at the start of the day and other different treatments from the director in relation to public servants.

There is a marked presence of the Taylorist-Fordist model of work management in the school studied. There is an aggravating factor: many tasks that could be computerized are still carried out manually, such as preparing school records. This is a printed form that is filled in with a black pen with the student's data (full name, affiliation, grades obtained in all grades and subjects, and there cannot be erasures. This situation leads to physical and cognitive overload at certain times during the working day, loss and waste of forms for preparing records, frequent errors, rework and delays in releasing these documents. Users' dissatisfaction and complaints regarding this issue are frequent, leading them in some circumstances to verbally attack employees.

### **3.1. Some problems highlighted**

In the context of public schools, like most organizational contexts, there are contradictions, which can, most of the time, make it difficult to carry out the tasks proposed by managers. Below are some of these situations and other limitations that cause overloads for employees in the sector studied:

- a) There are eight computers in the room where the assistants work, however, the only task that has been computerized is issuing student report cards, which is carried out on just one computer. The rest are idle. Only two employees type these bulletins and they are idle for a large part of the working day.
- b) The issuance of academic transcripts, containing the students' entire academic life, with grades, course loads and other very detailed data, which are prepared by manually filling out (with black pen) a form printed in printers. If there are errors, the form must be discarded, as there cannot be erasures in this document.
- c) There is no counter separating the work area of these professionals from the area used by the public seeking assistance in this sector. This factor favors a certain "invasion" of the public into the service area, causing embarrassment, loss of privacy and causing errors in filling out the history forms, leading to a significant expense of such forms and a certain delay in carrying out this task by the team.
- d) The working day is six hours. There is no formalized snack break. Many times, most of the team is absent from the department to have a snack, causing overload to the employees who remain there.
- e) There is the presence of mold, bad smell, poor ventilation in some rooms, especially in those intended for archiving former students' documents. Although it is called an archive, it is frequently consulted by the team to search for documents to issue duplicate transcripts and school diplomas.
- f) Although there is no formal work prescription, each assistant is expected to prepare at least five records during their daily workday. However, there is a lot of information, excessively detailed, to be entered without erasures, generating visual and cognitive overload, making it difficult to fill out a form without errors the first time. Normally, up to three attempts are made for a history to be ready. When errors occur when filling out, it is discarded. Try another form until it is completely filled out without any erasures.

g) There is no teamwork. Although they are together, carrying out the same task, these professionals show a lot of individualism in solving the problems they face. There are very simple questions that take up to three days to resolve.

h) The director, who plays the role of leadership in relation to the team studied, is very absent. At certain times, such as those in which there is a discussion between customers and administrative assistants, one gets the impression that there is no leadership, so they need to seek solutions based on their experiences and convictions. The decisions made are not always the most appropriate. There is a secretary who, in addition to being responsible for signing documents issued by the secretariat's professionals, also coordinates other activities, such as customer service.

### 3.2. Verbalizations

During the study, a lot of rich information was collected, from the point of view of analyzing the activity, however, it will not be possible to mention them all in the body of this article, but some verbalizations illustrate in an exquisite way a section of the context studied. Some are mentioned below:

“I haven't even been doing these records for an hour and I've already made mistakes 4 times. This one was almost ready. I'm going to have to tear it up and start all over again. Be patient!” (Verbalization from Employee W collected during observation of work in the secretariat.)

Customer service is considered to be fraught with difficulties: disorganized queues, lack of equipment and materials (computer, lockers, forms for preparing records, other forms for issuing declarations), as well as aggressive customers.

“Some are ready to curse us. They don't even want to know about the difficulties we face here. The xerox machine has been broken for a week. If we need a statement, we say there's no way to do it, people think it's our bad will. For them, no public employee works.” (Verbalization from Employee D collected during observation of work in the secretariat.)

## 4. Conclusion

Ergonomics aims, among other objectives, to adapt the means of carrying out tasks to the worker so that he can carry out his work in a comfortable, healthy and safe way, delivering satisfactory results to the company and its customers. Based on these considerations and after studying the work of secretarial assistants, it can be said that the work situation studied requires a review of the organization of the work of the professionals in question so that obstacles are reduced and the desired results are satisfactory.

We recognize that not all Brazilian public companies have good working conditions, possibly due to issues relating to poor management of public resources, both financial and human.

Despite these facts that were not addressed in this article, some suggestions will be made so that the difficulties perceived in the study, based on the ergonomics of the activity, can be alleviated. We propose:

a) The director could schedule periodic meetings with this team to discuss the main difficulties faced and identify possible solutions, always thinking about establishing deadlines and delegating tasks homogeneously across the team.

b) There is misuse (or non-use) of computers. This may cause malfunctions. Once they are already available, it is up to the manager to provide the necessary actions for the good use of this equipment by the entire team in order to speed up service to the public in terms of issuing

transcripts and other documents. Evaluate with the education department whether making such resources available will be more financially viable in relation to the forms that are currently printed in printers.

c) Place a counter to separate the service area from the space that customers must occupy at the time of service. In the basement there is an idle room in which there is a counter that could be used for this purpose.

d) Invest in behavioral and motivational training aimed at improving team relationships.

e) Sanitize the room designated for the so-called archive.

f) Set snack times so as not to overload any employee.

The lack of dialogue is also striking in this team. From the moment they hold meetings, other questions and suggestions may emerge. It is necessary to have a leadership presence that provides opportunities for verbalization within this team and is able to gather information and transform it into actions to benefit the smooth progress of the tasks proposed to that team.

As a suggestion for future work, it is suggested that ergonomic studies be carried out in other public school departments in the city of Belo Horizonte to understand the context and develop collective solutions together with the State Department of Education of the State of Minas Gerais.

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