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QUALITY OF WORK LIFE IN A HIGH SCHOOL IN THE STATE OF AMAZONAS/BRAZIL

QUALIDADE DE VIDA NO TRABALHO EM UMA ESCOLA DO ENSINO MÉDIO NO ESTADO DO AMAZONAS/BRASIL

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RESUMO

Esta pesquisa tem o objetivo de aplicar um modelo para avaliação da qualidade de vida no trabalho em uma escola pública do ensino médio no município de Itacoatiara/AM. Quanto à abordagem utilizada no estudo, configura-se como quantitativa e do ponto de vista dos objetivos, caracteriza-se como exploratória. Com relação aos procedimentos técnicos, configura-se como um estudo de caso. A abordagem de QVT utilizada neste estudo foi os Fatores Biopsicossociais (BPSO-96) mediante questionário composto por 42 questões dividido em cinco domínios (biológico, psicológico, social, organizacional e organizacional – atividade docente). A delimitação do universo foi composta por uma escola pública do ensino médio localizada no município de Itacoatiara/AM e como técnicas de pesquisa foram utilizadas: (1) documentação indireta por intermédio da pesquisa documental e pesquisa bibliográfica e a (2) observação direta extensiva por intermédio de questionários. O estudo comprovou que aspectos relacionados ao ambiente de trabalho e infraestrutura afetam negativamente os professores, no entanto os

professores possuem bons relacionamentos com demais colegas e alunos, ou seja, o trabalho possui impacto positivo na vida dos professores, além de apontar para um nível de estresse satisfatório, no entanto muito próximo de níveis insatisfatórios entre os docentes.

ABSTRACT

This research aims to apply a model to evaluate the quality of work life in a public high school in the municipality of Itacoatiara/AM. As for the approach used in the study, it is quantitative and from the point of view of the objectives, it is characterized as exploratory. With respect to technical procedures, it is configured as a case study. The QWL approach used in this study was the Biopsychosocial Factors (BPSO-96) through a questionnaire composed of 42 questions divided into five domains (biological, psychological, social, organizational and organizational - teaching activity). The delimitation of the universe was composed of a public high school located in the municipality of Itacoatiara/AM and as research techniques were used: (1) indirect documentation through documentary research and bibliographic research and (2) extensive direct observation by through questionnaires. The study showed that aspects related to the work environment and infrastructure negatively affect teachers, but teachers have good relationships with other colleagues and students, that is, work has a positive impact on teachers' lives, besides pointing to a level of satisfactory stress, however very close to unsatisfactory levels among teachers.



INTRODUCTION

Ergonomics is the study of aspects of human activity that aims to demonstrate knowledge about work, using examples to better understand the concepts of the area. It can relate to both "ergonomic" objects (such as mice, keyboards, and chairs) and occupational diseases such as Occupational Related Disease (DORT) or Repetitive Strain Injury (LER). In addition, the ergonomists are more likely to be involved in work activities, so that a combination of physical, cognitive, social and organizational aspects of the work environment can occur (ABRAHÃO *et al.*, 2009).

Ergonomics is the use of scientific knowledge related to man and necessary to design instruments, machines, and devices that can be used by the greatest number of people, with maximum comfort, safety, and efficiency (CURIE, 2004). Ergonomics cannot be reduced only to a juxtaposition of knowledge and transformation practices, it is important to return it to its scientific, social and institutional inscription in order to understand the emergency conditions of a project (TERSAC & MAGGI, 2004).

Quality of Work Life (QWL) is related to the conditions under which employees perform their work and their ability to express and act on content by determining the quality of life at work that results. The perception of QWL is a result of the content of the work, which considers the capacity for expression and action, as well as the conditions of employment and work (ANACT & ARACT, 2016).

The interaction between QWL and economic performance should be seen as a virtuous circle to be involved. On the one hand the QWL is a lever of competitiveness for the companies, because it helps to fully mobilize the potential of the employees and the organization; on the other hand, performance is a sign and condition of employee health, as well as a means of finding resources that can be devoted to improving working conditions; therefore, both reinforcers (BOURDU *et al.*, 2016).

Therefore, this research aims to apply a model to evaluate the quality of work life in a public high school in the municipality of Itacoatiara-AM. The paper is structured in three parts: (1) the first part deals with the literature review on ergonomics and quality of work life; (2) the second part concerns the methodology; and (3) third part presents the results, conclusion, and references.

1. LITERATURE REVIEW

1.1 ERGONOMICS

Historically, the adaptation of working conditions to man has come from the beginnings of mankind, since caveman was already seeking to create artifacts that best fit his characteristics and needs, aiming to improve performance and comfort in both hunting activity and in the preparation of their food (ABRAHÃO *et al*, 2009).

Ergonomics developed during World War II, which occurred between 1939 and 1945. During this period physicians, psychologists, and engineers combined their efforts to solve the disorders caused by complex equipment used in battles. Also post-war, the result of this union of efforts can be used in industry and interest in these results has grown in Europe and the United States (DUL & WEERDMEESTER, 2004).

The emergence of ergonomics has occurred because of concerns about improving the efficiency of human work and reducing man's suffering at work, thereby preventing risks to his health. Its origins have come from antiquity, where physicians and sanitarians have sought to describe the consequences of work for health, understanding its mechanisms and identifying its causes for finding ways to prevent it. Experts from various fields, such as engineering, medicine, and psychology, sought to define the amount of work that could be required of a man without fatigue or excessive wear (FALZON, 2007).

Ergonomics seeks to influence the design and reconception of the working environment, through recommendations made after an analysis of the environment. The design of the means of work implies complex processes that the ergonomist must learn to know and participate in order to influence them and obtain significant results (DANIELLOU, 2007).

The basic objectives highlighted by Iida (2005) are related to the development of the worker and the reduction of how much work influences in his state of life, that is, it seeks to reduce stress, fatigue, errors, and human accidents, safety, and satisfaction during their interaction in the productive system.

The domains of specialization are three: (1) physical ergonomics, related to anatomical, anthropometric, physiological and biomechanical characteristics related to physical activity; (2) cognitive ergonomics, related to mental processes, such as perception, memory, reasoning and motor response, as they affect the interactions between humans and the other elements of a system; and (3) organizational ergonomics, deals with the optimization of sociotechnical systems, including their organizational structures, policies and processes (IEA, 2018).



For ergonomics, the notion of working conditions is closely associated with the notion of workload. The ergonomic steps tend to identify and analyze the volumes to bring out the interaction of the different dimensions of human activity that intervene in the performance of work, especially the psychic dimension is often estimated or not recognized directly by the organizations. The notion of working conditions does not cover the same reality for the different actors of the company that are notably the director, the administrator and the worker (KERBAL, 1999).

1.2 QUALITY OF WORK LIFE (QWL)

According to Nadler & Lawler III (1994), interest in the subject arose in the period of 1969 and 1974 when a large group of researchers, students, leaders, and people related to the American government had an interest in how to influence the quality of experience that the individual has in their work. A series of studies were conducted by the University of Michigan between 1969-74 drawing attention to what was termed in the age of "The quality of employment" or the sum of all effects of work experiences on the individual.

To manage the work is to favor the effective integration of the work within the modes of organization and overall operation of the company. The characteristic elements of labor-management are Anact & Aract (2015):

1. Participatory management practices based on the existence of spaces for discussion and regulation of work;
2. Promote autonomy and initiative within a secure framework;
3. A consultative and work-centered social dialogue;
4. Governance modes and management processes consistent with the guiding principles of work management.

Work engagement in the company is a source of performance and innovation gains, where engagement depends on better conditions related to work content, professional development opportunities, management quality, customer or user satisfaction, as well as the company. To design these conditions in the long term means placing them in the strategic agenda and in the technical, social and organizational projects of the company (ANACT & ARACT, 2016).

The theory proposes that positive personal and work results (high internal motivation, high job satisfaction, high quality of performance and low turnover and absenteeism) are obtained



when the three critical psychological states are present (experience of the meaning of the work, experience for the results of work and knowledge of the results of work activities) (HACKMAN & OLDHAM, 1974).

Therefore, the quality of work life (QWL) is an important issue for organizations that seek to minimize existing conflicts in the company/employee relationship, reconciling their interest (DETONI, 2001). Quality of work life is considered the set of actions of a company that involves the implementation of managerial, technological and structural improvements and innovations in the work environment (LIMONGI-FRANÇA, 1996).

In this paper, Westley (1979) presents a model for assessing the quality of work life based on four fundamental indicators: economic, political, psychological and sociological. The author defends the idea in which exploitation of the worker leads to insecurity and injustice resulting from the concentration of power and profit. With regard to alienation and anomie, they derive from the inhuman characteristics that work assumes through the complexity of organizations.

For Werther & Davis (1983) environmental, organizational and behavioral factors affect the quality of work life, the authors have the concern to analyze the content and the designation of the positions. The model for the analysis of quality of work life (QWL) presented by Walton (1973) considers the evaluation of eight conceptual criteria and their respective indicators for the analysis of QWL in an institution.

Timossi *et al.* (2009), adapted the model of evaluation of the quality of life of the work proposed by Walton to a more accessible language allowing the application in populations of lower schooling.

Findlay *et al.* (2013), review the quality of work and map the dimensions of work quality, the factors that influence it, and the results or impacts of work quality. The authors point out that the quality of work is a multidimensional phenomenon, which multiple factors and forces operate at multiple levels of influence. The complexity of the factors involved in producing differences in work quality underscores the fact that the study of work quality is inherently multidisciplinary.

In conclusion, Nanjundeswaraswamy & Swamy (2013) focused on reviewing the literature on the quality of work life. From the literature review, the authors identified nine important components related to QWL: (1) work environment, (2) culture and organizational climate, (3) relationship and cooperation, (4) training and development, (5) compensation and rewards,



(6) facilities, (7) job satisfaction and safety, (8) autonomy at work, and (9) adequacy of resources.

2. METHODOLOGY

2.1 RESEARCH DESIGN

As for the approach used in the research, there is a quantitative approach in which one considers that everything can be quantifiable, that is, translate into numbers opinions and information to classify and analyze them. From the point of view of the objectives, the research is characterized as descriptive, aiming to describe the characteristics of a particular population or phenomenon or establishment of relations between variables. It involves the use of standardized data collection techniques through questionnaires and systematic observation, assuming, in general, the form of survey (SILVA & MENEZES, 2005).

With respect to technical procedures, it is configured as a case study. The case study seeks to examine contemporary events where the behaviors of the research subjects cannot be manipulated and the theoretical prepositions are generalizable. With this, it aims at the expansion and generalization of theories and not of populations and universes. The generalization method used is "analytical generalization", using a theory developed in the form of a model and comparing it to the results obtained from the case study (YIN, 1994).

2.2 RESEARCH APPROACH

The QWL approach used in this study was the Biopsychosocial Factors (BPSO-96) presenting for the first time in Limongi-França (1996). In the case of the research, the work of Oliveira *et al.* (2013) which was applied in federal technical education teachers. This study created a specific block called organizational "teaching activities".

The questionnaire used was composed of 42 questions divided into five domains: (1) biological domain, (2) psychological, (3) social, (4) organizational and (5) organizational - teaching activity, as well as three questions related to the personal state of QWL. A scale was used in the questionnaires containing ten levels, ranging from total dissatisfaction (1) to total satisfaction (10). The questionnaire was divided into three parts: (1) profile of the respondents, (2) internal results of QWL satisfaction and (3) personal state of QWL. The questions adopted in the questionnaire are presented in Tables 2 to 7 presented in Part II - Internal Results of QWL Satisfaction.



The biological domain deals with physical characteristics inherited or acquired at birth and maintained throughout life. The psychological domain refers to the conscious or unconscious affective, emotional and reasoning processes that shape the personality of each individual, their way of positioning themselves and perceiving themselves before the people and the lived circumstances (OLIVEIRA *et al.*, 2013).

The social domain is related to values, beliefs, role in the family, at work and in all social groups and communities in which the person belongs. The organizational domain deals with organizational culture, company size, technology, an economic segment in which it operates and competitiveness standards (OLIVEIRA *et al.*, 2013).

2.3 CHARACTERIZATION OF THE ORGANIZATION STUDIED

The organization studied is a public high school, founded in 1952, by virtue of a local movement in defense of education, is located in the municipality of Itacoatiara, in the state of Amazonas. The school is a reference in the quality of education in the municipality and its students have passed several selective processes in the universities of the state of Amazonas. The school has a total of 33 teachers hired to work in the morning and afternoon shifts, 12 classrooms, computer lab, library and also has a radio.

2.4 DATA COLLECTION PROCEDURES

The delimitation of the universe was composed of a public high school located in the municipality of Itacoatiara/AM. Access to the organization occurred through professional contact. The research sample was of non-probabilistic intentional character (MARCONI & LAKATOS, 1990) and as research techniques were used: (1) indirect documentation through documentary research and bibliographic research and (2) extensive direct observation through questionnaires.

The research was carried out in two moments: (1) documentary research was conducted in order to collect preliminary data in written documents; and (2) application of the QWL questionnaires together with the institution's teachers; the bibliographical research occurred throughout the study aiming at the correlation between theory and practice.

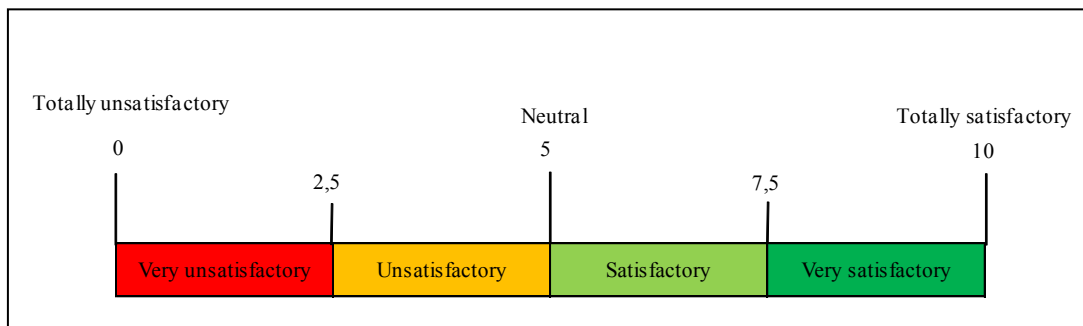


2.5 DATA ANALYSIS PROCEDURES

Among the procedures used for data analysis are (1) position measurements using tabulated data, such as arithmetic average, median, quartiles, percentiles and mode; and (2) presentation of the data by means of tables and tables.

Regarding the classification of the quality of life, the present study adopted a scale from 0 to 10 (decimal scale) for the classification of the results of the QWL model, in which the values of 2.5 and 7.5 represent the benchmarks for the classification of QWL indicators. This classification ends up being an adaptation to Siviero (2003) according to Figure 1.

Figure 1: QWL Classification. Source:Adapted from Siviero (2003).



Source: Authors.

In addition, the boxplot was used in data analysis. The boxplot allows the identification of the center, the dispersion and the distribution of the data and the outliers (extreme values). Considering the outliers in this type of analysis is relevant for evidencing significant information and for affecting the values of the mean and the standard deviation.

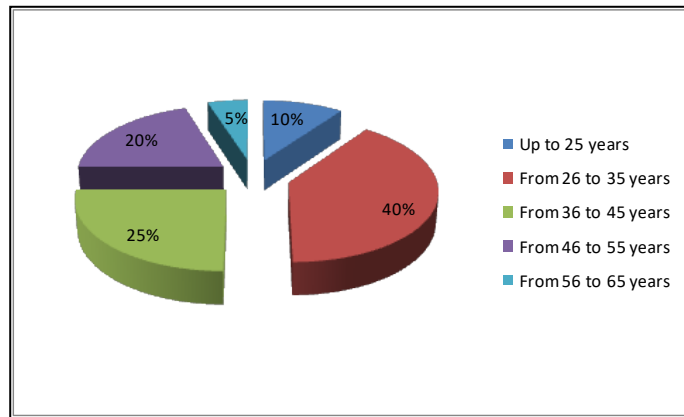
3. RESULTS

3.1 PART I – PROFILE OF RESPONDENTS

The school has a total of 33 teachers working in the morning and afternoon shifts, the sample was composed of all teachers. All teachers agreed to participate voluntarily and confidentially. Regarding the age group of the participants, 65% of teachers are between 25 and 45 years of age, of which almost half (40%) are in the range of 26 to 35 years (Figure 2).



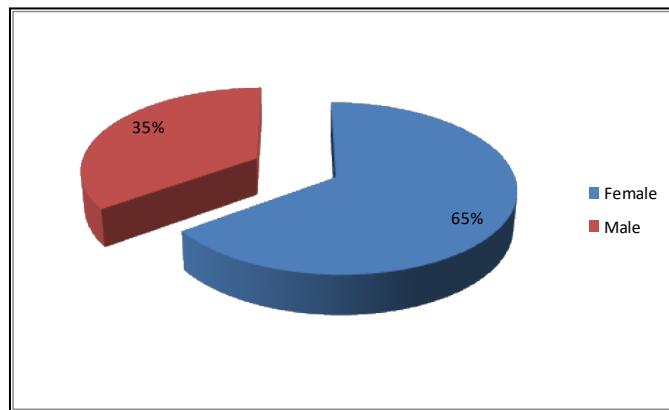
Figure 2: Age group of teachers. Source: Authors.



Source: Authors.

Regarding gender, 65% of teachers are female and 35% are male (Figure 3).

Figure 3: Gender of teachers. Source: Authors.

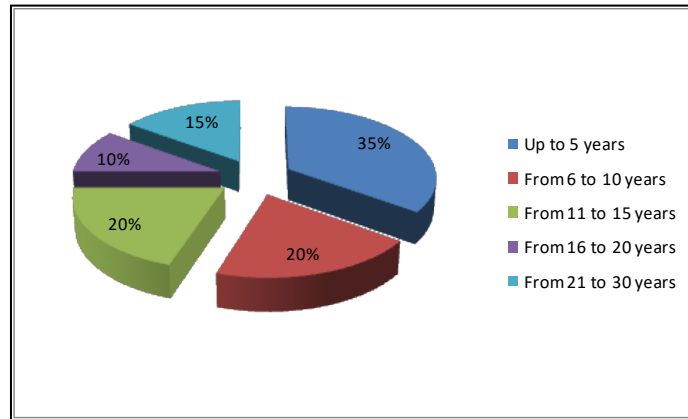


Source: Authors.

As for the length of service, most teachers have little public service time, since 55% have less than 10 years of service and only 15% have more than 20 years of public service (Figure 4).



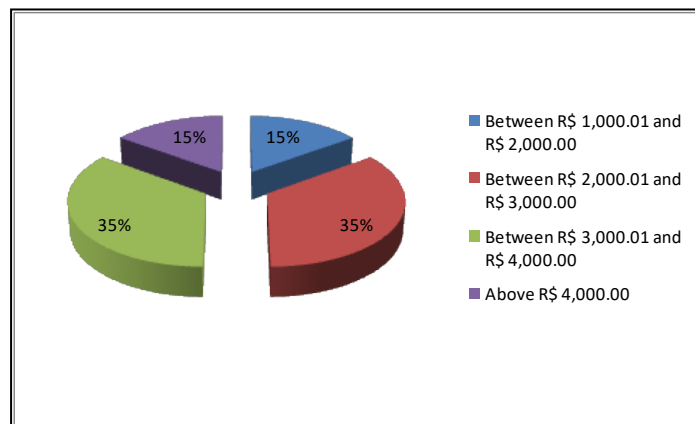
Figure 4: Public service time. Source: Authors.



Source: Authors.

As far as family income is concerned, 70% of teachers have a family income between R \$ 2,000.00 and R \$ 4,000.00, while 15% of them have a family income between R \$ 1,000.00 and R \$ 2,000.00 and 15% with family income above R\$ 4,000.00 (Figure 5).

Figura 5: Family income. Source: Authors.



Source: Authors.

3.2 PART II – INTERNAL RESULTS OF QWL SATISFACTION

3.2.1 OVERALL RESULTS

Table 1 explains the overall result obtained through descriptive statistics. In the case of the average of the domains studied and considering the classification of the QWL presented in Figure 1, the psychological, organizational, organizational and teaching domains and the personal state of QWL presented satisfactory levels, while the biological and social domains showed unsatisfactory levels (Figure 6).

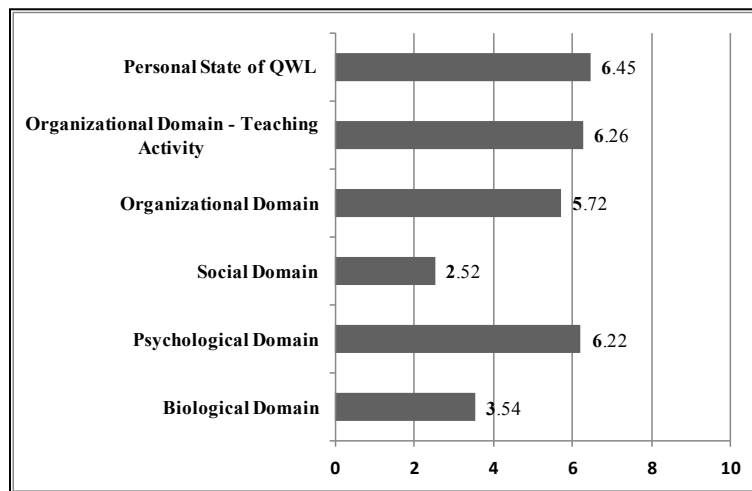


Table 1: Results obtained by dimension considered

	Q3	Maximum	Median	Average	Minimum	Q1	Standard Deviation
Biological Domain Variables	6	10	2	3.54	1	1	2.94
Psychological Domain Variables	8	10	7	6.22	1	5	2.48
Social Domain Variables	4	10	1	2.52	1	1	2.37
Organizational Domain Variables	8	10	6	5.72	1	4	2.66
Organizational Domain Variables - Teaching Activity	9	10	7	6.26	1	4	2.94
Personal State of QWL	8	10	7	6.45	1	5	2.27

Source: Authors.

Figure 6: Average of domains. Source: Authors.



Source: Authors.

3.2.2 BIOLOGICAL DOMAIN

Among the questions analyzed in this variable, the ones with the highest averages were: quality of food served at school (6.20) and control of ergonomic risks (5.70). The questions with lower averages were outpatient care (1.70) and care of the health plan (1.75).

Teachers are dissatisfied with the biological domain with the following questions: outpatient care at school; a health plan with consultation and examinations; quality of life preservation and physical integrity programs and the performance of the school's Internal Accident Prevention Commission (CIPA), as well as the promotion of the health of servants and students (Table 2).

Table 2: Results obtained from the Biological Domain



			CI of 95%	
Biological Domain Variables	Average	Standard Error	IL	UL
1 Control of ergonomic risks, weight load, inadequate posture and environmental.	5.70	0.41	4.71	6.69
2 Outpatient care at school (address health issues in the school community).	1.70	0.29	1.00	2.40
3 Attendance of the health plan (hospitalizations, consultations, examinations, etc.).	1.75	0.35	0.90	2.60
4 Quality of food served at school (physical space for food, quality of food: balanced and varied, etc.).	6.20	0.56	4.85	7.55
5 Acting of the Internal Commission for the Prevention of Accidents (CIPA) of the school.	2.25	0.42	1.25	3.25
6 Quality of programs to preserve life and physical integrity, as well as to promote the health of servants and students.	3.65	0.47	2.51	4.79

Source: Authors.

3.2.3 PSYCHOLOGICAL DOMAIN

In the Psychological domain variable, the analyzed questions that presented higher averages were those of a camaraderie atmosphere with the teachers in the administrative area (7.35) and a climate of camaraderie with the teachers in the technical area (6.80). The lowest averages were found in the issues of satisfaction with remuneration/maturity (5.15) and the form of performance evaluation for functional progression (5.65).

With respect to the psychological domain, the teachers demonstrate a good relation of camaraderie between them and with the other servants of the school. However, they are dissatisfied with their remuneration and the recognition of their work (Table 3).

Table 3: Results obtained from the Psychological Domain

			CI of 95%	
Psychological Domain Variables	Average	Standard Error	IL	UL
7 Trust in the selection criteria of teachers (public tender and/or simplified selective processes).	6.15	0.55	4.83	7.47
8 Form of performance evaluation for functional progression.	5.65	0.39	4.71	6.59
9 The climate of camaraderie with the teachers of the technical area.	6.80	0.42	5.80	7.8
10 The climate of camaraderie with the teachers of the administrative area.	7.35	0.38	6.45	8.25
11 Satisfaction with remuneration/maturity.	5.15	0.44	4.09	6.21

Source: Authors.



3.2.4 SOCIAL DOMAIN

Regarding the social domain variable, the questions that presented the highest averages were those related to the value of the food aid (4.50) and the opportunity for distraction provided by the school (3.70). The issues with the lowest averages were: the amount of the reimbursement of the state government to pay the health plan (1.60) and the value of the transportation aid (1.70).

Teachers' dissatisfaction with supplementary health care and other benefits that were to be provided by the state government as a health plan is perceptible. They are also unhappy about the distraction and fun opportunities offered by the school. There is also a nuisance for the little or no funding/grants for external courses, food aid and transportation aid (Table 4).

Table 4: Results obtained from the Social Domain

Social Domain Variables	Average	Standard Error	CI of 95%	
			IL	UL
12 Value of the reimbursement of the State Government for payment of the Health Plan (supplementary health care for the teacher and other beneficiaries).	1.6	0.27	0.94	2.26
13 Opportunity for distraction provided by the school (sport, leisure area, excursions, etc.).	3.70	0.40	2.75	4.65
14 Preschool Aid (per dependent up to 05 (five) years of age).	1.70	0.31	0.95	2.45
15 Complementary Social Security.	2.40	0.49	1.23	3.57
16 Funding or grants for external courses (postgraduate, congresses, etc.).	2.05	0.47	0.93	3.17
17 Value of food aid.	4.50	0.45	3.41	5.59
18 Value of transport aid.	1.70	0.32	1.06	2.34

Source: Authors.

3.2.5 ORGANIZATIONAL DOMAIN

Of the thirteen questions analyzed in this variable, the ones with the highest averages were: school image with teachers (7.74) and quality of administrative procedures for pedagogical practices (7.00). With lower means, the questions of classrooms are sufficient for the number of students in the school (3.95) and the opportunity to participate in decision-making committees (4.21).

In this variable teachers show that they have a good view of the school regarding the opportunities of their professional development, the improvements to the work processes and new technologies installed, the quality of the administrative processes for pedagogic practices,



the safety conditions of the school and the number of teachers. However, there is an average teacher satisfaction with the number of classrooms and the number of students in the school. Also with regard to the school library, a number of books and journals for its discipline, as well as the number of administrative staff in education in the school (Table 5).

Table 5: Results obtained from the Organizational Domain

Organizational Domain Variables	Average	Standard Error	CI of 95%	
			IL	UL
19 Opportunity for Professional Development (courses, seminars, lectures, meetings, congresses, conferences and others).	5.16	0.31	4.41	5.91
20 Image of the school next to the teachers.	7.74	0.30	7.02	8.45
21 Improvements in work processes and new technologies.	6.84	0.30	6.12	7.56
22 Opportunity to participate in decision-making committees.	4.21	0.45	3.13	5.29
23 Quality of administrative procedures for pedagogical practices.	7.00	0.27	6.36	7.64
24 Performance of Human Resources / Personnel Management at school (Vacation Programming, Miscellaneous Application, leaflets, etc.).	5.63	0.40	4.68	6.58
25 Classrooms are sufficient for the number of students in the school.	3.95	0.55	2.64	5.26
26 Library (number of books and magazines for your discipline, professionally trained for attendance at all shifts, physical space suitable for reading).	4.84	0.54	3.54	6.14
27 Social programs for needy students (food aid and transport bag).	4.63	0.56	3.29	5.97
28 A number of teachers the school needs.	6.58	0.55	5.26	7.90
29 A number of administrative technicians in education that the school needs.	4.89	0.54	3.60	6.19
30 Safety conditions at school (care for the person).	6.58	0.46	5.46	7.69
31 Internal communication - feedback.	6.32	0.46	5.21	7.42

Source: Authors.

3.2.6 ORGANIZATIONAL DOMAIN – TEACHING ACTIVITY

In this domain with eleven questions, two of them presented higher averages: number of equipment available (8.37) and classroom in good condition (8.05). Also analyzed were questions that presented the lowest averages, number of students per classroom (2.84) and the rest environment of teachers (3.40).

This variable is directly related to the work of the teachers, being satisfied with the number of equipment available, the conditions of the classrooms and the teachers' room, the ergonomics



of the tables and chairs in the classroom, the hours of weekly classes, to the teacher-student relationship. There is little motivation with regard to the number of students per room, the necessary laboratories in the school and in relation to the teachers' rest environment, which is necessary for their good motivational development (Table 6).

Table 6: Results obtained from the Organizational Domain - teaching activity

Organizational Domain Variables - Teaching Activity			CI of 95%		
			Average	Standard Error	IL
32	Number of students per classroom.	2.84	0.37	1.95	3.73
33	The laboratories meet the training needs of the school (quantity, size, safety, equipment, etc.).	3.21	0.55	1.88	4.54
34	The school encourages scientific initiation (Extension and scientific initiation programs).	7.53	0.38	6.62	8.43
35	Quality of equipment (television, stereo, overhead projector, data show, video, DVD, slide projector, microphone, etc.).	7.89	0.30	7.17	8.62
36	A number of equipment available (television, stereo, overhead projector, data show, video, DVD, slide projector, microphone, etc.).	8.37	0.25	7.78	8.96
37	Classrooms in good condition (lighting, ventilation, noise, temperature, furniture).	8.05	0.30	7.33	8.78
38	Table and chair suitable for a good posture of the teacher in the classroom.	7.53	0.34	6.72	8.33
39	Weekly lesson time.	6.74	0.52	5.49	7.98
40	Teacher-student relationship.	7.74	0.38	6.81	8.66
41	Rest of the teachers (glass, sofa, television, bathroom, refrigerator, filtered water, etc.).	3.40	0.47	2.27	4.53
42	Teachers' room (individual lockers, printer, computer with internet access, tables, chairs, bathrooms).	5.70	0.38	4.79	6.61

Source: Authors.

3.2.7 PERSONAL STATE OF QWL

In the questions in which the personal state of QWL was evaluated, the highest mean analyzed was in the question of satisfaction with his own way of living daily (7.35) and the question with the lowest mean was state general of personal tension (5.60). This variable presented only three questions for analysis.

The personal state of QWT of teachers refers to the way in which they qualify their own level of stress. The results indicate a satisfactory level of stress (5.60), however very close to unsatisfactory levels (Table 7).



Table 7: Results obtained from the Personal State of QWL

			CI of 95%	
Personal State of QWL	Average	Standard Error	IL	UL
43 Feeling of well-being at work.	6.40	0.41	5.42	7.38
44 General state of personal stress.	5.60	0.48	4.44	6.76
45 Satisfaction with their own way of living day-to-day (lifestyle)	7.35	0.29	6.66	8.04

Source: Authors.

3.3 BOXPLOT APPLICATION

The boxplot was used to verify three items: (1) the behavior of the data, (2) the dispersion of the data around the mean and (3) the verification of the presence of outliers. Figure 7 shows the boxplot graph with respect to the variability from the six domains considered in this study and applied in the institution.

The data obtained in the research point to an asymmetry of the values in relation to the mean and even between the average and the median in most of the criteria, except for the biological and social domains (Figure 7). As for the outliers, the presence of upper and lower outliers in all domains is verified.

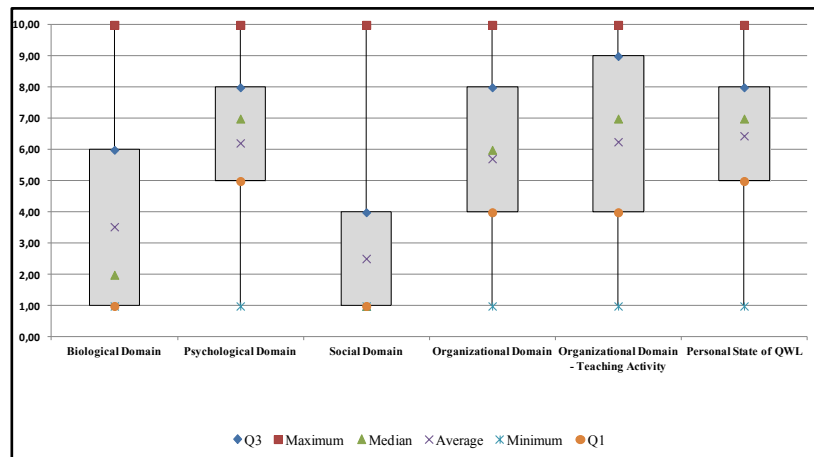
Considering the distribution of the data and observing the average below the median in three domains (psychological, organizational - teacher and the personal state of QWL), there are boxes skewed to the right influenced by large outliers, demonstrating the influence of teacher satisfaction in these three Domains. In the case of the organizational domain, it is observed that the average approaches the median demonstrating symmetry in the data in this domain.

Observing the mean above the median in the biological and social domains, we have the boxes skewed to the left influenced by small outliers, reflecting teachers' dissatisfaction with these two criteria. In this way, there is a domain that presents symmetry between the data obtained (organizational domain) and the other domains presenting asymmetry.

The boxes represent that 50% of the evaluated sample has a response within the range of values of each of the criteria. The upper part of the boxes indicates that 25% of the sample evaluated (Quartile Q3) have responses above this value and the lower part of the boxes indicates that 25% of the sample (Quartile Q1) have responses below this value.

Figure 7: Boxplot diagram of the researched institution. Source: Authors.





Source: Authors.

Therefore, Part I - Respondents' Profile points to a young population of teachers with 65% of them having a maximum of 45 years, female predominance having more than half of teachers with less than 10 years of public service and approximately $\frac{3}{4}$ of the teachers have a family income between R \$ 2,000.00 and 4,000.00.

Part II - Internal Results of QWL Satisfaction indicates satisfactory levels in relation to the psychological, organizational, organizational - teaching activity and the personal state of QWL. In opposition, the biological and social domains explained unsatisfactory levels.

It is noteworthy that even the domains with positive results have fallen short of approaching the classification of very satisfactory demonstrating the need for internal actions aimed at improving the quality of life at work.

The performance of the biological domain points to the concern of teachers with aspects related to health and safety at work and in the psychological domain indicates the well-being of teachers regarding interpersonal relationships.

The performance of the social domain indicates dissatisfaction with the benefits that could be offered by the state government. This reflects a difference between the private and public career balanced by the stability in the public service and the absence of benefits that are observed in the private area.

The organizational domain showed the greatest variations in the results, showing that certain aspects, such as image and internal processes were well evaluated, while aspects of the infrastructure (classroom) and decision making process received lower marks. In the organizational domain - teaching activity once again appeared the issue of infrastructure in relation to the number of students in the classroom and an environment for teachers to rest. However, the domain presented the best results among the five domains evaluated.



Finally, the Personal State of QWL pointed to a level of stress among teachers very close to the unsatisfactory, perhaps requiring actions to improve the quality of life from the identified aspects. Boxplot demonstrates symmetry of organizational domain results and asymmetry in other domains, indicating the influence of outliers on the results of each domain.

CONCLUSION

QWT has been gaining importance in recent decades in Brazil and in the world since most people spend most of their day practicing a professional activity. This paper proposes to evaluate the quality of work life (QWL) of high school teachers in a public school in the municipality of Itacoatiara-AM. Therefore, it is believed that the objective of the work has been achieved.

Among the main results are: (1) the contribution of the study to the area of production engineering, when approaching the educational area; (2) it was possible to verify that the teachers are satisfied with the good relationship with the administration and also with the students; (3) but believe that the required workload is high, considering the number of students per classroom and the insufficient number of classrooms in the school. (4) It was also analyzed that teachers are dissatisfied with their recognition by the state government as they offer few resources that value their work.

Research has shown that aspects related to work environment and infrastructure negatively affect teachers, however, teachers have good relationships with other colleagues and students, i.e., work has a positive impact on teachers' lives. Regarding the level of stress, the research pointed to a satisfactory level of stress, however very close to unsatisfactory levels among teachers.

The limitation of the study lies in the application in only one public school. For future research, it is indicated the application of the instrument in other public and private schools in the region. With this, it would be possible to verify the discrepancies between public schools and when compared to private schools.

This study finds that the teacher likes his profession, even with all the difficulties encountered he feels proud of his work. However, a greater appreciation by public power is needed. This could be done with a better working environment, reducing the number of students per room, increasing the number of rooms and the number of teachers in the school.



It would also be feasible for their appreciation, adequate remuneration and a career plan for these teachers. Finally, the relevance of this study was to analyze and collect data regarding the quality of life of high school teachers through an analysis of biological, psychological, social and organizational factors through questionnaires applied directly with teachers, aiming at improvements in quality of life so that they can work motivated and thus improve their performance in teaching.

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