

Volunteering at the Foggara Work in Touat region: A Study in Social Ergonomics

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ABSTRACT

Social environment is very important for the human being in which he practices his humanity and helps others to exercise their humanity. Social ergonomics enhances the positive components of the social environment and at the same time it works to reduce the harmful effects of the negative components of the social environment through various methods including volunteerism. In this research, the focus will be on volunteer work which supports the positive elements of the social environment. "Twiza" is a form of volunteerism that is widespread in the Touat region (western area in Algeria). It means the assistance provided by members of a community, to members of another community, who are in dire need of this assistance.

Objectives: This research aims to answer the following questions:

1. Does voluntary work enhance freedom/autonomy at Foggara maintenance work?
2. Does voluntary work include encouragement for work and creativity during Foggara maintenance work?
3. Does voluntary work make it easier to obtain resources for Foggara maintenance work?
4. Does voluntary work increase job challenges at Foggara maintenance work?

Methodology: Researchers applied the descriptive method, using a snowball technique sample which consisted of (29) volunteers from whom data were collected through a questionnaire.

Results and discussion: Individuals' answers show that volunteer work does not affect individuals' freedom, nor their sense of independence while working. Also, the volunteers show that supervisors during the volunteer work encourage them to be creative and innovative. This made them feel safe and secure. Furthermore, respondents agree that the resources required for volunteer work are available to everyone. The respondents indicated that the availability of resources is a factor in the success of volunteer work. The respondents also praised the positive challenges that exist in volunteer work, especially in the maintenance of the Foggara. It is the work that made them feel they are achieving a noble patriotic duty. This research has found that volunteering enhances the social environment, and from the perspective of social ergonomics, that the environment is fitted to the individuals.

Keywords: Social Ergonomics, Volunteering, Twiza, Ksar

INTRODUCTION

It is necessary to point out that ergonomics was late in paying attention to the issue of social factors and their effects on work. As early as 2003, Wilson et al. (2003) referred to this issue. They urged ergonomics to take into account the influence of the social environment on work. In the same context, other researchers (Taveira, and Smith, 2012; Carayon, 2021) have spoken of the importance of social environment in ergonomic studies. Social ergonomics aims at adapting the social environment to the worker to be able to perform his work efficiently. Workers are social beings that cannot live in isolation from others.

Social environment is very important for the human being in which he practices his humanity and helps others to exercise their humanity. Philosophers from the time of Aristotle defined man as a social animal (Aristotle [350 BC], 2000), to indicate that a person must be a member of society. Man lives in society to absorb its values, customs and traditions that enable him to be a part of society and builds strong relationships with its members. Thus, he will exchange belonging, love and emotions with the rest of the community to enable him to overcome loneliness and isolation and the resulting psychological problems such as anxiety, depression, and may be suicide.

The researchers adopted Amabile et al's (1996) conception on social environment, which includes two types of components: the positive components, which affect positively work performance such as encouragement of creativity, autonomy/ freedom, resources, and challenging work. And the negative components, which affect negatively, work performance such as pressures (workload pressure) and organizational impediments (lack of training, lack of promotion opportunities, Inconsistency between management and workers).

Social ergonomics works to enhance the positive components of the social environment and at the same time it works to reduce the harmful effects of the negative components of the social environment. If these two goals are achieved, the social ergonomics contributes to increasing the workers' satisfaction at work and increasing production as well.

How does social ergonomics achieve these two goals? It achieves these goals mainly through ergonomics interventions (Villalonga-Olives, et al. 2018; Ornrert, 2020).

Despite the fact that volunteer work reduces negative feelings; increases the feeling of happiness, and enhances the person's self-confidence, it also contributes to strengthening social relations between people, which contributes to promoting social health. Therefore, volunteer work can be considered one of the ways that can enhance the positive components and limit the negative components of the social environment.

In this research, the focus will be on the relationship between volunteer work and the positive components of the social environment.

Volunteering refers to a wide range of activities, carried out with free will, for the benefit of the public, where the financial motive does not constitute an incentive to do it. Volunteer work is a healthy social phenomenon because of the obvious beneficial interests it achieves among members of the same

community (Adha, 2019; Hsiao, et al. 2020). It is a means of cohesion and unity and one of the necessities imposed by reality. It is also able to smooth out the undesirable effects of the negative elements of the social environment.

Among the forms of volunteerism that are widespread in the Touat region (western area in Algeria), we refer to the collective effort of a community to support each other which is called “Twiza”. Twiza in its simplest meaning means the assistance and services provided by members of a community, or neighborhood, to members of another community, or group who are in dire need of these services or assistance. Previously, it was used in almost all walks of life. However, we now observe that its use is limited to few areas namely agriculture and construction.

One of the agricultural areas in which Twiza is still used, is the maintenance of Foggara, which was and is still the main source of water used for drinking, farming and other things (recreational purposes, medical purposes, etc.).

Research questions: This research aims to answer the following questions:

1. Does voluntary work enhance freedom/autonomy at Foggara maintenance work?
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4. Does voluntary work increase job challenges at Foggara maintenance work?

METHOD

Sample. Using the snowball technique, a sample which consisted of (29) volunteers was gathered. The following is the distribution of the sample members (Table 1).

Data collection tool. To collect the research data, researchers built and applied a questionnaire that they tried first, and then applied to the sample members. The questionnaire consisted of (20) statements. The different statements covered the major components of the social environment (freedom /autonomy, encouragement of creativity, resources, and challenging work), as follows:

- Autonomy/ freedom: (Phrases: 1-2-3-4-5).
- Encouragement of creativity: (Phrases: 6-7-8-9-10).
- Resources: (Phrases: (11-12-13-14-15).
- Challenging work: (Phrases: 16-17-18-19-20).

The total score of each component ranges between (25), which is the maximum and expresses a positive opinion about volunteer work. And (05), which is the lowest degree, and expresses a negative opinion about voluntary labor.

Psychometric characteristics of the scale:

Questionnaire Validity. The questionnaire was submitted to seven faculty members. The referees made a number of comments about the questionnaire

Table 1. Distribution of the sample members.

Variable	Indications	No	%
Gender	Males	23	81
	Females	06	19
Total		29	100

Table 2. Obtained results.

Social environment components	Average score
Freedom/autonomy	5
Encouragement at work	5
Resources	5
Challenging work	4

statements. All comments were taken into consideration before putting it in its final form.

Questionnaire Reliability. The Alpha Cronbach method was used to measure reliability. The result was (0.84). It is an acceptable result that enables the use of the questionnaire in scientific research.

RESULTS AND DISCUSSION

This research aimed to answer the following general question: “Does voluntary work enhance the positive components and reduce the effects of the negative components of the social environment?”

In order to answer this question, the impact of volunteering in promoting the positive components of the social environment was taken into consideration. The obtained results can be seen in (Table 2).

Question 1: Does voluntary work enhance freedom/autonomy at Foggara maintenance work?

It can be seen in (Table 2) that the average score obtained in this component is 5, which means that all sample members agree that volunteer work enhances individuals’ sense of freedom. This agrees with previous research findings (Wilson, & Musick, 1999; Sargent, 2013).

A high-end institution does not allow laws to deprive workers of their freedom. On the contrary, it does not accept to take away the freedom of its employees.

Professional freedom is meant to abide by the rules and laws while giving superiors to subordinates the opportunity to be free or freedom within certain limits and within clear frameworks. However, this freedom does not cancel the existence of policies and rules regulating work, but rather focuses on giving the employee freedom in a certain space, this space may be everything related to his role and tasks. Professional freedom includes granting the employee freedom of expression and opinion, freedom of decision-making and participation in it, freedom of movement between different job levels,

and freedom to search and obtain necessary information such as inquiries about decisions and goals in his work environment.

Question 2: Does voluntary work include encouragement for work and creativity during Foggara maintenance work?

As shown in (Table 2), the average score obtained in this component (encouragement for work) is 5, which means that all sample members agree that volunteer work enhances encouragement for work. This agrees with previous research findings (Grigoryan, 2002).

Encouragement and kind words have an effect on workers. They play a great role in motivating employees and encouraging them to continue working hard to achieve progress and prosperity in the system in which they work. Hearing expressions of thanks and appreciation to employees always makes them feel proud and excited, and improves the mood throughout the day, without getting tired, or bored. One must choose the words that are used when in an institution, and always hurry to encourage distinguished employees, motivate them, and be keen to meet their demands and needs, as this is reflected in their production capacity. Motivation is an important factor in spreading comfort and happiness at work, instilling success and ambition, and instilling the spirit of cooperation and safety in the work environment.

Question 3: Does voluntary work make it easier to obtain resources for Foggara maintenance work?

It is seen in (Table 2) that the average score obtained in the resources component is 5, which means that all sample members agree that if volunteer work is to be a great success, the necessary material and moral resources must be available for its success. This agrees with previous research findings (Okun, & Michel, 2006).

Resource refers to all available resources in the surrounding environment. These available resources help meet the needs of individuals in the surrounding environment. In this research, we classify the resources into Self and external resources. Self-resources include what the individual possesses of skills, abilities and knowledge. While external resources include work tools, machines, and physical equipment. The more these resources (endogenous or external) are available, the more this will lead to the development of the social environment. The more these (especially external) resources are available, the more this contributes to the adaptation of the social environment to the individual. This issue has been referred to by many researchers (Terziev, 2018; Petrova, et al. 2020).

Question 4: Does voluntary work increase job challenges at Foggara maintenance work?

As shown in (Table 2), the average score obtained in this component (job challenges) is 4. It is slightly lower than what was obtained in other components of the social environment. However, the majority still believes that volunteer work is full of challenges that push volunteers to work tirelessly. This agrees with previous research findings (Liao-Troth, 2008; Lindsay, 2016).

What social ergonomics does to adapt the work environment to the worker is to ensure that the work contains a significant proportion of challenges. This is because work that includes challenges makes the worker feel present and

capable of achievement, unlike routine work that makes the worker feel alienated and insignificant. Many researchers have pointed out this issue (Tadić Vujčić, et al. 2017).

Returning to volunteer work, especially in the maintenance of Foggara, we can ask: Are there challenges in this type of work? If we know that the work for the maintenance of Foggara takes place underground in a narrow and dark place with water, and that the workplace can collapse, ending the lives of workers, we will realize that it is a challenging work (Mebarki, et al. 2021). But the workers insist on doing it to get water, which is the source of life for all the residents of the palace, including the families of these workers (Mebarki, et al. 2021). In addition to the challenges referred to above, we can refer to a new challenge facing the maintenance of the Foggara, which is related to the clash of values experienced by Foggara maintenance volunteers. The values of parents and grandparents urge to take care of Foggara and maintain it as a historical gain inherited by children from grandparents, and it is necessary to pay attention to it and try their might to keep it alive. While the youth's values influenced by modernity urge them to give up traditional things and not waste time in maintaining the Foggara that is doomed to disappear. This clash of values is what led to the demise of some Foggaras, and the survival of others. The issue depends on the most powerful values that will prevail in the end: the values of parents and grandparents or the values of children (Mokdad, and Mebarki, 2021).

CONCLUSION

This research dealt with the topic of volunteer work, especially in the maintenance of Foggara in the Touat region. Volunteer work was considered one work that leads to the adaptation of the work environment to the employees. Thus, its practice is suitable for the development of social ergonomics. In volunteer work, the focus was placed on the freedom of individuals and their enjoyment of independence. There was also a talk of leaders' encouragement to workers, and the provision of appropriate resources that assist workers in completing volunteer work to the fullest. Finally, it was pointed out the need to put certain percentages of the challenge in the work of volunteers to increase the workers' satisfaction with volunteer work, raise their morale, and expel boredom from their path. The participants expressed their happiness, while they are doing volunteer work. Foggara never underestimates them, nor does it make them feel tired or bored, and they consider it as a response to the favor of the Foggara, which did not skimp on them with the most important element of life, which is water. These results confirm what has been expressed in motivation needs theories such as Maslow (1981), and McClelland (2005).

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