

The Other Aspect of Ergonomics: Job Crafting in a Sample of Older Adults Still in Employment

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ABSTRACT

Job crafting refers to the adaptations an employee makes while adhering to the requirements of his employment, in order to achieve a balance between the job requirements and individual needs and abilities. Job crafting typically takes place in one or more of the following three domains: social, cognitive, and skill. In Algeria, do employees engage in job crafting within their fields? Further, can job crafting be considered an ergonomic practice? Fifty-two secondary education teachers made up the research sample. Data was collected using questionnaires. It has been found that most teachers frequently crafted their work. They stated that they have made the changes they feel are required to advance educational work. In addition, it has been found that both ergonomics and job crafting have the same end goal, but different methods to get there.

Keywords: Job crafting, Ergonomics, Secondary education teachers, Algeria

INTRODUCTION

A worker may consider quitting to take a better job if he feels that his enthusiasm for the task he is performing has diminished or if it is causing him a great deal of trouble (Eley et al., 2010; Amitai, and Van Houtte, 2022). Even if leaving a stressful work and searching for a better one is undoubtedly a solution to this kind of issue (Park et al., 2017), It is important to remember that quitting a job is not the only option. When the shine on an old piece of work fades, job crafting is one approach people can take to revive it: reformulating parts of it or the work as a whole (Tims and Bakker, 2010; Masood et al., 2021). With job crafting, the work can be more closely matched to the requirements, interests, and skills of the employee. Job crafting generally refers to attempting to match one's preferences and feelings with the demands of the position (Vermooten et al., 2019).

Job crafting is a part of any workplace unless it is expressly forbidden. Workers may not be able to carry out such an intervention due to labour rules inside the organization (Nieuwenhuijsen et al., 2010; Kurniawaty et al., 2019). To better align their job with their preferences, inclinations, and orientations, employees typically make minor or major alterations to it. The employee, who might work eight hours a day, finds the task and the workplace more comfortable as a result.

There are several types of job crafting. If we consider the source of the crafting's dictation, we get two types: the official job crafting that the administration forces on the employee and the informal job crafting that the employee does on his own initiative. Typically, the former is referred to as "the top-down crafting." The term "the down-bottom crafting" refers to the latter. However, when considering the specific field of work that is witnessing the crafting, we find that there are three types of job crafting: relational crafting, task crafting and cognitive crafting. Relational crafting involves the worker altering the style and repetition of reactions related to work, particularly by avoiding those who despise and hate him. Task crafting involves reviewing daily tasks and activities in order to give them more importance and allocate more time to work. However, cognitive crafting, involves the worker adopting the cognitive amendment of the work, such as changing the way it is seen to work (Martinez and Solem, 2019; Wang et al., 2016).

There was little information about ergonomics when it initially became popular in the middle of the 20th century. Over time, the area of ergonomics expanded and became much more knowledgeable. This led to an increase in the diversity of ergonomics, resulting in the current existence of multiple kinds. There have been three generations of ergonomics in this setting, according to Hendrick (1996). The first iteration of ergonomics is focused on man-machine interfaces. The second generation is concentrated on technology related to user interfaces. Third generation is centred on organization/-machine interfaces. Job crafting clearly belongs in some form to the third generation of ergonomics when one examines its definition, objectives, and substance.

Goals and Questions for Research

The following goals are at the core of this study:

1. Evaluate the degree of job crafting that teachers in secondary school are doing.
2. Examine the connection between ergonomics and work crafting.

Furthermore, the purpose of this study is to address the following questions:

1. How much job crafting do teachers in secondary education engage in?
2. Can job crafting be categorized as an additional type of ergonomics?

METHODOLOGY

Method

To conduct this investigation, researchers used the descriptive approach's survey method.

Sample

The research sample consisted of 52 secondary education instructors. The sample's average age was 55.76 years, with a 3.69-year standard deviation. All teachers were males. The sample's overall specialty was psychology.

Data Collecting Tools

Data on job crafting were gathered using the job crafting questionnaire, and information on the connection between job crafting and ergonomics was gathered using the ergonomics-job crafting questionnaire that was created specifically for this study.

- **The job crafting questionnaire (JCQ):** Slemp and Vella-Brodrick (2013) developed the JCQ. The three dimensions of the questionnaire are task crafting, cognitive crafting, and relational crafting. The original version of the questionnaire had 27 items. The number of questions was lowered to 15 after factor analysis (confirmatory and exploratory) was performed on two separate samples (5 items for each dimension).

The validity and reliability of the questionnaire were confirmed by the JCQ authors. Furthermore, the survey has been employed in several prior investigations (Slemp et al., 2015; Schachler et al., 2019; Dhanpat et al., 2019).

Participants were asked to respond to the questionnaire items on a 5-point Likert scale in order to determine the outcome: 1 for disagree, 2 for somewhat disagree, 3 for neither agree nor disagree, 4 for somewhat agree and 5 for agree.

- **The Job crafting- ergonomics relationship questionnaire:** Specifically for this study, the researchers created this questionnaire. The following two sections comprise the questionnaire:
 - The form section that has the title and the instructions.
 - The questionnaire statements section. There are six statements in the questionnaire concerning the idea of “job crafting” (what does work crafting mean?). (Have you ever used it in your life?) and the idea of ergonomics (what does ergonomics mean? If so, have you implemented it in your life?), and the connection between job crafting and ergonomics (do you believe there is a relationship between the two variables? If so, describe the nature of this relationship).

The questionnaire’s validity and reliability were verified prior to being used to gather study data. Four psychology experts from the Department of Psychology at Oran University in Algeria reviewed the questionnaire to check its validity, and they all concurred that it measures what it was intended to. The same group of experts that evaluated validity initially received the questionnaire to guarantee reliability, however this was done 10 days later. The two applications yielded quite comparable replies.

RESULTS

Findings

Based on the research questions, findings will be given as follows:

1. How much job crafting do teachers in secondary education engage in?

Table 1 displays the results. The results show how meticulously the sample members design their work (Overall crafting = 4.32). They claimed to have made the adjustments they believe are necessary to support their pupils’ learning as well as the growth of the educational process in general. It has been

discovered that task, cognitive, and relational components were all covered by their interventions.

Table 1. Job crafting questionnaire results.

Teachers (n = 52)	Type of Crafting	Mean	SD
Male teachers (n = 52)	Task	4.56	1.36
	Cognitive	4.30	2.41
	Relational	4.10	1.51
	Overall	4.32	1.77

It was discovered that teachers, do not hesitate to alter the instructional strategies they employ with pupils, particularly those with special needs, in the first area of job crafting (task crafting). For students who struggle to comprehend the lessons taught during regular class periods, they also offer supplementary instruction. Instructors have demonstrated that these interventions improved their job satisfaction and gave them more control over their work.

Regarding relational constructing, it was also discovered that educators value forming close bonds not only with other educators at their own school but also with educators at other institutions. They also expressed a desire to establish a solid rapport with the parents of the pupils they presently instruct as well as those whose children have taught in the past. Instructors have said that when invitations to participate in scientific, religious, and national events arrive from different schools, they accept them without hesitation.

Regarding cognitive crafting, educators clarified that they continuously consider feedback from students and supervisors on how to improve their instructional and pedagogical approaches. Instructors reported that they never felt suspicious or uneasy about these observations. Conversely, teachers see it favourably since it originates from highly skilled and experienced colleagues who were formerly in a comparable educational position as them.

2. Can job crafting be categorized as an additional type of ergonomics?

To analyse the sample members' answers to this question, the researchers used the content analysis method (Elo and Kyngäs, 2008). The individuals in the sample clarified that they had some knowledge, albeit limited, regarding job crafting. Job crafting, according to most respondents, is when an employee makes adjustments to his work to better suit his comfort level. The sample members discussed how they practiced job crafting in their previous and current jobs, and they said that this practice helped them stay in their current jobs for a long time instead of permanently leaving them to take a better-paying job.

The participants further elucidated that their familiarity with ergonomics stretches back to their undergraduate years, during which they completed a human engineering course as part of their psychology bachelor's degree program. Thus, they are not unfamiliar with the subject of ergonomics. People said that they use all they know and can about ergonomic principles

to improve educational work when it comes to the practice of ergonomics in their line of work. All of them emphasized the steps they take to ensure that the physical space for studying is appropriate and supportive of learning during the harsh winter and summer months.

A correlation between the two variables was mentioned by individuals. But as to the nature of this relationship, they could not agree. Given that ergonomics aims to accomplish several goals, including those of job crafting, 38 respondents (74%) said that job crafting is a component of ergonomics. 11 individuals (22%) indicated that the two variables are independent of each other, even if they meet in their ultimate goal. Lastly, three respondents (4%), who clarified that they lacked knowledge regarding the connection between the two factors, said they had none.

DISCUSSION

The discussion of the research findings takes into account the sequence in which research questions were previously presented.

1. How much job crafting do teachers in secondary education engage in?

The findings demonstrated that secondary school teachers engage in highly skilled job crafting in their employment. Additionally, most of them said that they do it on purpose. They declared that they are acting in a purposeful manner while adhering to the Algerian Ministry of Education's legal guidelines. Most people thought that a teacher's work needed to be creative. Making educational work interesting and capable of accomplishing the goals established for work is one of the forms of creativity that teachers mentioned.

Teachers' sense of independence (autonomy and freedom) at work is one of the factors they bring up that foster creative work and allows the teacher to be a key component of the work he does. In addition to reducing physical constraints, the sense of independence also involves removing mental constraints that could impede an employee's ability to produce because they might lead to intellectual enslavement and mental dependency.

One of the biggest changes in the workplace of the twenty-first century is that employees are allowed independence as long as it is kept fair. Due to the fact that a worker who enjoys autonomy and flexibility can be innovative and creative (Sholderer, 2017). Job crafting flourishes when an employee perceives that there is room for job autonomy, according to numerous research (Slemp et al., 2015; Chang et al., 2021).

2. Can job crafting be categorized as an additional type of ergonomics?

The benefits of job crafting, according to researchers in the field, go beyond just helping an employee customize his work to fit his interests; it also fosters his development as a professional and as a person who strives to lead a meaningful life that is full of happiness and satisfaction at work (Christensen, 2017; Arachie et al., 2021).

When we go back to the beginnings of ergonomics in the middle of the last century, we will discover that its goal has always been to maximize

worker comfort, security, and efficiency (Chapanis, 1965). Thus, job crafting and ergonomics are similar in that they both aim to provide the worker with a setting that makes him feel safe, secure, and content. As a result, job crafting falls within the umbrella of ergonomics, particularly organizational ergonomics. Does work crafting belong to a different kind of ergonomics? For more than 50 years, the research and practice of ergonomics have aimed to fit people's jobs so they may work cheerfully and love what they do. To this day, ergonomics is still defined according to this criterion. But who gives the work legibility for humans? In this instance, an ergonomist or engineer with ergonomic training would probably be the one to modify the work (Grandjean and Kroemer, 1997). For a long while, things were like this. But "job crafting" has been trying to do something similar to ergonomics, which is customizing work to each person's requirements so they can enjoy doing it. Therefore, the end goal of ergonomics and job crafting are the same, but their approaches to achieving it differ. Stated differently, their disagreement stems from who should be in charge of the adaptation process. When it comes to job crafting, the worker adapts the assignment to suit his or her competencies (Demerouti, 2014).

CONCLUSION

This study clarified the extent to which Algerian secondary school teachers engage in job crafting.

We think that an independent spirit in the workplace will benefit employees and free them up to fully engage in the process of creating the job in all of its varied components (skillful, mental, and relational). However, it could demotivate workers and keep them from engaging in job crafting if the industry opposes autonomy at work.

As a result, we stress the significance of job crafting in terms of developing work and assimilating the worker into his task. Not losing sight of the fact that the employee works long hours at his job. He can be more creative at work when he is happier. Lastly, we stress that ergonomics, or human engineering, is a subset of job crafting.

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