Applied Ergonomics 46 (2015) 107-114

Contents lists available at ScienceDirect

**Applied Ergonomics** 

journal homepage: www.elsevier.com/locate/apergo

# Work debate spaces: A tool for developing a participatory safety management



<sup>a</sup> Ecole Doctorale de Sciences Sociales, Laboratoire d'Ergonomie, Université de Bordeaux 2, 146 rue Léo Saignat, 44000 Bordeaux, France <sup>b</sup> IPST-Cnam, Maison de la recherche et de la valorisation, 118, route de Narbonne, Toulouse, France

#### ARTICLE INFO

Article history: Received 25 January 2014 Accepted 20 July 2014 Available online 7 August 2014

*Keywords:* Managed safety Reflective practices Work debate space

#### ABSTRACT

In recent years, various studies have shown the importance of instituting work debate space within companies in order to address constraints within the organization. However, few of these studies demonstrate the implementation methods of discussion spaces and their contributions. Based on the action research developed in an electric company, this article demonstrates how work debate space (WDS) contribute to the development of an integrated safety culture. After describing the establishment methods and function of WDS within a technical group, we will present the main benefits of these spaces for the organization and its employees, and then discuss the minimal conditions for their implementation.

© 2014 Elsevier Ltd and The Ergonomics Society. All rights reserved.

#### 1. Introduction

The evolution of sociotechnical systems in the world of work is accompanied by the creation of new rules and new technology with the goal of improving safety methods (Rasmussen, 1997). Consequently, employees see different types of changes in their work. On the one hand, local managers find themselves under an obligation of managerial performance, thus distancing them from the technical work site (Journé, 2005). On the other hand, safety procedures are multiplied in order to compensate for the absence of management and to limit the reporting of field information. This can lead to situations where compliance to the rules is difficult or impossible to achieve in the case of an unexpected event (Dekker, 2003; Amalberti et al., 2004). One of the possible effects of such situations is that operators do not want to talk about everyday problems of safety, and managers do not want to hear about them (Rocha et al., 2013).

To remedy this break of interactions within the collectives, various studies emphasize the importance of reestablishing the work group through the participation of workers (Lewin, 1951; Liker et al., 1989), by engaging reflective practices among them

(Schön, 1983; Mollo and Falzon, 2004) and initiating discussions about actual work and micro-activities within organizations (Hendry and Seidl, 2003; Detchessahar and Journé, 2011).

The challenge is thus to develop spaces in which employees and managers can participate in arbitrations related to safety, in order to transform the organization (Daniellou et al., 2011). The objective of this debate is that the contradictions raised by the employees, particularly the operators which are at the crossroads of different procedures and instructions produced by the organization, be expressed, discussed and resolved (Detchessahar, 2001).

The research presented here aimed at developing a safety management based on Human and Organizational Factors. It was conducted in an electric company, and implemented work debate space (WDS) within this organization. This paper describes the real-life contributions gained from discussions about work on both the individual and organizational levels, and considers some conditions for discussion implementation.

#### 2. Theoretical framework

### 2.1. Developing participatory approaches to create a culture of safety

In daily work, "there will always be situations that are either not covered by the rules or in which the rules are locally inapplicable" (Reason et al., 1998, p.297). Safety relies on the ability of workers to assess the applicability of procedures and adaptations to carry





APPLIED ERGONOMICS

<sup>\*</sup> Corresponding author. Tel.: +33 7 62 58 31 76.

*E-mail addresses:* raoni.france@gmail.com (R. Rocha), vanina.mollo@ipst-cnam.fr (V. Mollo), francois.daniellou@ensc.fr (F. Daniellou).

<sup>&</sup>lt;sup>1</sup> Tel.: +33 5 62 25 52 45.

<sup>&</sup>lt;sup>2</sup> Tel.: +33 5 57 57 10 42.

http://dx.doi.org/10.1016/j.apergo.2014.07.012

<sup>0003-6870/© 2014</sup> Elsevier Ltd and The Ergonomics Society. All rights reserved.

them out (Dekker, 2003). In order to progress in this field, it is necessary to consider the safety approach as adaptive, dynamic, and developmental (Nascimento et al., 2013).

Dekker (2003) distinguishes between two models of rule application. The first is based on a normative view: rules are the safest way to perform a job, and operators must comply with them. The second is based on an adaptive view: rules are resources for operators, but they are not sufficient to cover all work situations. Safety then relies on the ability of operators (and managers) to judge when and how they should adapt procedures to local circumstances. The same distinction is made by Morel et al. (2008) between "regulated safety", founded on procedures and scientific knowledge that anticipate undesirable situations, and "managed safety", that refers to real-time relevant responses made by operators for adapting procedures to the circumstances of the situation. The challenge for developing a safety culture in organizations is to find a balance between these two types of safety (Daniellou et al., 2011).

The concept of safety culture can be defined as "the assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, [nuclear plant] safety issues receive the attention warranted by their significance" (INSAG, 1991, p.4). By expanding the concept to other organizations, Simard (2000, p.59.8) talks about "integrated safety culture" and affirms that it must be based on the association between the safety mission and the commitment of actors, so that safety is "an integral part not only of the enterprise culture as an essential value, but also of the behavior of all staff, reinforcing the total commitment from the top to the bottom" (p.59, our translation). Both concepts underline the convergence of attitudes and practices in favor of safety.

Although the concepts around the development of a safety culture are already well developed in recent years, its scope needs tools and methods that enable practitioners to ensure that the system in which they work be more resilient and able to bounce back quickly to errors or other unexpected events (Hollnagel et al., 2006). One of the interesting ways to reach this objective may be the development of participatory approaches discussed in ergonomics over the last thirty years.

The foundations of participatory ergonomics derive from the organizational theories of human relations. Lewin (1951), a precursor of this topic, argues that changes disrupt the stability of social systems and the forces that promote change must be greater than their resistance. For him, participation is the best way to conduct this change because the needs of workers can be integrated into the proposed changes.

Wilson (1991) defines participation as the people's involvement in the planning and control of a significant part of their own work activities, with the knowledge and the sufficient power of influence to improve the process and the outcomes. Its benefits are many and varied. Patel et al. (2012) show how trust and collaboration can be enhanced when team members work remotely and communicate via technology. Haims and Carayon (1998) report that an active involvement of participants leads to changes in perception and improves learning and understanding of the work environment. Finally, Wilson (1991) argues that participatory approaches allow better understanding between colleagues, and improves the relationship between the various professional groups and the effectiveness of problem solving.

Participatory ergonomics is carried out in different areas of work, such as in manufacturing environments (Garmer et al., 1995; Liker et al., 1991), in food sectors (Imada and Stawowy, 1996; Pehkonen et al., 2009), in office sectors (Haims and Carayon, 1998) or in video display terminal workplaces (Westlander et al., 1995). However, its objectives and structures can appear in many different forms from one study to another (Haines and Wilson, 1998). Some studies seek to reduce musculoskeletal disorders (Moore and Garg, 1997), others use participative methods to design work situations (Daniellou, 2003) or to implement new technologies (Garmer et al., 1995). In all these studies, the methods used vary greatly, ranging from simple formalized tools to extremely formal methods (St-Vincent et al., 2000).

In order to develop a culture of safety, the participatory approach we advocate allows the participation of different workers in safety management, so that various types of knowledge are articulated and confronted.

### 2.2. Work debate spaces as a way to feed formal organization by living organization

To foster participatory approaches in safety it is necessary to develop means to consider the actual organization and interactions among workers. These are concepts developed by the approaches "Strategizing" (Whittington, 1996) and "Work of Organization" (de Terssac and Lompré, 1996).

On the one hand, the "Strategizing" approach considers that the strategy is not only placed in the rational decisions of experts, but it also emerges from the everyday micro-activities (Rouleau, 2005). This approach integrates the routines of some actors — meetings, discussions, or data processing — in the definition and implementation of the strategy. In this way, the strategic issues of the organization should not be decided and imposed by the leaders, but must be the results of a daily construction with all stakeholders of the organization (Whittington, 2007).

On the other hand, for the model of "Work of Organization", the challenge is to make the daily experiences visible, so that local arbitrations are the starting point of organizational changes. The "Work of Organization" approach describes a living organization: occupational rules are developed by the employees in order to mitigate the defects of the formal organization, and to develop safety. In this theory, we consider the organization in these two aspects, the formal one and the living one. The objective is to structure them and to create the conditions for reflecting the living organization (de Terssac and Lompré, 1996).

Both approaches consider an organization defined simultaneously by the leaders and by local and temporary regulations constructed by field operators. The question they raise is the need to feed the managerial and strategic levels of the organization by local micro-organizations. To do this, participatory approaches may play a key role. But how to develop participatory approaches that articulate the formal and the living organization? A possible way is the discussion and confrontation of points of view between different stakeholders of the organization around elements of the real work.

Daniellou et al. (2011) argue that articulating safety challenges with other operator constraints is only possible with a working group involving the concerned parties, in order to identify the situations that are particularly difficult to manage, to discuss them within the organizations and to propose changes. Hendry and Seidl (2003) talk about "a strategic episode" meaning "a sequence of communications structured in terms of its beginning and ending" in which organizations must be able to "routinely suspend their normal routine structures of discourse, communication and hierarchy, and so create the opportunity for reflexive strategic practice" (p.176). Detchessahar (2001) uses this concept and develops the theory of spaces of discussion, advocating the discussion of work on a regular and protected basis, coordinated by a manager who does not belong to the direct hierarchy. This method acts as a "medium that deals with all the arrangements, compromises and adaptations that suppose the lacks of the prescription incomplete instructions and the implacably erratic nature of concrete activity" (Detchessahar, 2013, p.59).

Download English Version:

## https://daneshyari.com/en/article/550097

Download Persian Version:

https://daneshyari.com/article/550097

Daneshyari.com