

## **Mental Workloads in Virtual Work: Identifying and Coping with the Unique Stressors of Distance**

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In recent years, advances in technology have made the practice of working from locations distant from one's primary workspace—so-called, virtual work—widespread, if not commonplace in many organizations (Vartiainen, 2006). Although this practice has been touted widely for the increased levels of flexibility and cost savings it brings employees, it is critical to note burgeoning evidence suggesting that working from distant locations changes work experiences in ways that trigger such dysfunctional emotional-psychological reactions as feelings of isolation and role ambiguity, as well as such behavioral reactions as absenteeism and social loafing (Hertel, Geister, & Konradt, 2005). Such reactions are not surprising to the extent that virtual work creates new, often unique, job demands for employees with which they must cope. For example, various characteristics of virtual work environments (e.g., the use of mediated interaction and asynchronous communication) are likely to add complexities to work that contribute to its stressfulness (Vartiainen, 2006). And ultimately, since distance from coworkers makes it difficult to assess personal reactions that would occur by comparing oneself to others and using those coworkers as a source of social support, virtual work also may be linked to stress-related disease.

To understand these processes more fully, we conducted an investigation designed to identify the psychological, social and technological characteristics of work that potentially contribute to the health and well-being of virtual workers. Specifically, our research was guided by two key questions: (1) What context-specific

mental workload factors characterize dispersed, virtual teams? and (2) How do employees cope with these workload factors in ways that promote their well-being?

Because most of the existing research in this area has been conducted in artificial laboratory settings involving students performing short-term tasks, it has been impossible to answer these questions (Martins, Gilson, & Maynard, 2004). To overcome this limitation, we used qualitative multi-case analyses to identify previously unidentified, context-specific mental load factors that may be involved.

Toward this end, we conducted 102 semi-structured interviews among employees from 11 geographically distributed companies in the electronics, woodworking, road construction, social work, and banking industries. All use dispersed work groups extensively, relying on various means of electronic communication. However, none of the participants worked completely virtually; all met their colleagues on a face-to-face basis at least occasionally.

Interview responses were analyzed using a text-analysis program. Our analyses revealed several previously unidentified mental load factors related to various dimensions of virtual complexity associated with stress. Most widely identified in this regard were: isolation and detachment, autonomy requirements, work-leisure imbalance, unclear career development, meetings outside regular working hours, long working hours, different backgrounds of actors, difficulties in reaching team members, unclear communication, difficulties sharing tacit knowledge, and lack of face-to-face meetings.

These are in addition to problems widely identified in traditional work settings, albeit in different forms. For example, overload occurred, but in virtual groups they were linked to the difficulties of managers to set limits on employees because distances made it challenging to set limits for work when they were engaged in multiple projects at once.

Bearing on our second research question, we found that various coping strategies were used to regulate mental workloads. These included using self-management methods, placing at least two virtual team members at the same office to avoid loneliness and isolation, choosing flexible leisure activities, getting social support, using regular performance evaluation and emphasizing fairness in career development decisions, arranging virtual meetings at overlapping working time, preparing explicit communication rules, developing intercultural skills and language skills, and arranging face-to-face meetings when necessary.

In conclusion, our research suggests that virtual workers experience unique job demands that may make coping difficult, thereby causing distress. In the next phase of our research we will measure these stress reactions directly and examine how they manifest themselves with respect to mental and physical disease. This is particularly important insofar as global expansion is making the management of employees in distant locations more critical than ever (Kokko et al., 2003). The present research provides a substantial base from which to launch such ambitious investigations.

#### References

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