Work Load Factors in Virtual Teams

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ABSTRACT

This paper examines work load factors in virtual teams. The virtual environment sets new job demands and challenges relating to work well being. This study's results are based on data collected from 10 different virtual teams in 5 different Finnish organizations. There were not many work load factors in virtual teams. The most common factors were work stress and hurry. Most of the work load factors were independent of the work context; the virtual working context as such does not explain work load factors although it set some challenges for work well being.

Key words: work load, virtual team, work well being

1 INTRODUCTION

A team working virtually has many positive aspects concerning job satisfaction and work well being. In many cases working hours and habits are flexible. Workers usually have much influence over their own work, and they have the feeling of autonomy. These things have a positive effect on job satisfaction and well being. (for example [5], [6]). Despite many positive aspects of virtual working, it also includes elements which might decrease work well being and job satisfaction [3]. One of the things mentioned most often in virtual team literature as decreasing work satisfaction is the physical separation from other team members and from important office activities. A virtual team is a challenging working environment because team members don't see each other face-to-face as often. Electronic communication sets challenges for communication, and remote workers might feel limitations in their daily communication with their colleagues. [4]. It is also hard to sense when colleagues need support and help. Because of those things remote workers might experience isolation and loneliness.

This article deals with work well being challenges for members of virtual work teams. The goal of this article is to describe workload factors in virtual teams. This article's results are based on empirical data collected from 10 different virtual teams. The next section tells more about the data gathering and methods. After that are the results and the final discussion section.

2 METHOD AND SAMPLE

The data was gathered from 10 different virtual teams in five different Finnish organizations. In this study, the criteria for a virtual team required that at least one of the team members had to work in another city. Additionally, the team members had common team goals and they had to co-operate with each other (see [8]).

The main data gathering method was a themed interview. In total, 45 virtual team members were interviewed. The second data gathering method was a quantitative questionnaire [15], to which 118 virtual team members replied. The response rate to this was 62 percent. The qualitative method was the main method of analysis, and the quantitative analysis supported the qualitative analysis.

The teams were so called "long-term teams", which meant that they had already existed for a long period and the turnover of workers within them was quite low. The teams represented different business sectors. However, most of the teams (8) represented the IT-sector, one team was a sales team and one was a sales support team. All of the teams mainly used the phone and emails to communicate with each others. The teams' sizes varied between 5 and 28 people. The size of a team did not affect workers' well being.

3 RESULTS

Factors that encumbered workers were rare. Most common work loads were work stress and hurry. Table 1

Table 1. Work load factors (1=very much, 5=vey little) (n=117).

Work load factor	Mean	SD
Mobbing	4,75	0,54
Gratuitous surveillance	4,35	0,67
Lack of trust	4,15	0,76
Fear of expressing opinions	4,14	0,80
Fear of failure	4,10	0,70
Underestimating team members	4,04	0,77
Excessive bureaucracy	3,88	0,90
Personnel disagreements	3,80	0,83
Unsolvable problems	3,79	0,90
Misunderstandings between team members	3,61	0,78
Work stress	2,50	0,92
Hurry	2,04	0,78

In the virtual team context, increasing conflict risk factors include misunderstandings between colleagues, limited possibility for spontaneous communication and feelings of insecurity (see [16]). Despite the risk factors, mobbing and conflicts between team members were rare in virtual teams. Almost all teams' members (95%) felt that there existed only quite a little mobbing. Also in other virtual teams' studies mobbing has mentioned to be rare (for example [16], [20], [21]). In general, if conflicts between team members existed it was felt to weaken the organizational climate and we-spirit substantially. Positive aspect of virtual teams is that personal conflicts seldom arise because atmosphere is not crowded (see also [12]). Although cliquey tele-offices are one risk factor. In one team, one tele-office was felt to be cliquey and workers in other tele-offices felt the situation troublesome (see also [18]). Communication, support and co-operation between team members were not felt to be functional. Conflict situations were related for lacking communication outside the tele-office and for weak co-operation between tele-offices. In this case virtual working was felt positive because remote workers didn't have to deal with each other daily, and that way neither conflict situation was sensed. On the one hand, virtual working did not take away the problem. Weak -functioning communication and co-operation harmed development of work and, instead of co-operating, workers had to settle for working on their own. In some cases this encouraged disunity and even feelings of discrimination. It was felt hard to interfere in conflicts between team members especially when working virtually. Team experts tell about their negative experiences about cliquey tele-offices:

I don't call to Pori. It is personal chemistry thing. I'm not accepted in there. To these persons I can't call although they do same work as I. It has always been this way.

I can't say that I belong to group in any way because I'm not on the spot and they don't share information.

Other scholars have reported similar results. Solving conflicts in virtual teams is hard and more difficult than in face-to-face teams (for example [2], [9], [19]). According to Armstrong and Cole [1] study conflicts were expressed, recognized and efforts to solve them were made more quickly if team members worked in the same building. In virtual teams, problems were buried and left unsolved. Team members who worked at the same office often complained to one another but they did not complain to remote working supervisor before emotions rose to a high level. Step to inform remote supervisor was higher than when supervisor worked at the co-located office.

Team members felt that there existed some rules that directed function of the team. In general, personnel felt that there were not so many rules that they would have interfered with working. Workers liked that, because they appreciated freedom to work and a relaxed atmosphere without too much bureaucracy. There was not too much bureaucracy in any of the teams.

When organization size increased bureaucracy was also felt to increase, and in big organizations possibilities to influence weakened compared to small organizations. Even though there was not so much bureaucracy that it was felt that big organization affected teams' functioning with bureaucracy. Virtual team doesn't exist disconnected inside a big

organization but big organizations' bureaucracy also affects the virtual team. This was experienced especially in different change situations and when filling paperwork.

Big workloads and hurry negatively affected work climate. Nakari [13] got similar results. In this study 73 % of the virtual team members experienced hurry in their work either pretty much or very much and this was felt to weaken the quality and quantity of communication. Personnel felt that they didn't have enough time for organizational citizenship behavior because they had so much work on their own task.

A feeling of security is one of the basic human needs [11]. An organizational climate which creates a feeling of security supports organization's function. When workers feel security, the climate supports continuing working ability, the courage to receive change, and creativity at work. [14] A feeling of insecurity was the biggest single factor that affected organizational climate. As a whole there existed only little feeling of insecurity in virtual teams, but when insecurity existed its effects were very negative.

Things that created insecurity in virtual teams were: lack of communication and information, exiguous face-to-face time with supervisor and fear of redundancy. A virtual working context demands activity and initiative, especially from remote workers. Remote workers can feel that they don't get as much information as workers at the head office. In this study some of the team members felt sometimes that their colleagues in the head office knew more about their organizations' affairs than they did. In many cases workers in the head office didn't know more than remote workers. Remote workers just assumed that they miss information. This was because there were no clear communication rules and guidelines discussed. Open and well working communication creates a feeling of security for personnel. In this case the virtual working context itself is not the primary cause of feelings of insecurity. The same kind of feelings could also occur in co-located office if communication is not working properly. Feelings of insecurity decreased over time when remote workers noticed that they did not miss any important information.

Some of the remote workers felt insecurity because they seldom saw their supervisor. Some of the workers feared that the supervisor did not know how they have succeeded in their work. They feared that if the supervisor did not know how they have succeeded in their work, they would not get promoted as fast as their colleges who work at the same location with supervisor.

Fear of losing one's job affected organization climate very negatively. If there is a threat of redundancy then it is very hard to develop organization climate. Workers' focus is on maintaining their work. In that kind of situation supervisors' task is to create sense of security by open communication. With the help of open communication, personnel will know what's going to happen and that decreases insecurity. Threat of redundancy can affect organization climate even many years after the threat has passed. Workers can remember these kinds of events even several years afterwards and feeling of insecurity can last years.

Work traveling was not considered as a factor that creates work load. Virtual teams' members felt that traveling was part of the work and the amount of traveling was felt to be suitable. Though some workers mentioned that if there would be a lot more traveling then it would likely create stress and work load because of less time with family. But in this case, workers did not feel that work traveling would have affected their family life tremendously.

Although some of the former studies (for example [1], [7], [10], [17]) mention isolation as a quite typical feature among virtual workers, this is not necessarily the case in every virtual team. In this study, feelings of isolation among team members were quite rare. In remote offices, virtual team members usually had people from other teams to discuss with, and that decreased the feeling of isolation. Kokko et. al. [9] got same kind of results in their research. According to their study, virtual team members had only minor feelings of isolation because they had lots of co-workers from other teams at the same office. Team members did not feel isolation at all if there were at least two team members at the same physical office. Exiguous shared meetings increased the feeling of isolation. Persons who traveled a lot experienced feelings of isolation and loneliness much more compared to other workers.

Workers at the same location alone do not explain exiguity of loneliness and isolation because neither virtual team members who worked at home alone experienced loneliness and isolation. They had chosen working at home of their own will and they were satisfied with the situation even though they had not face-to- face contact with their colleagues as often. Instead they were in daily contact with their colleagues and customers by email and by phone, so there was not communication isolation. Only in a few cases were there momentary feelings of isolation during vacation times when their colleagues were not reachable. Regular communication and reachability can be considered to be essential. Team members describe their feelings of isolation:

So, here in head office it is different, when you go downstairs you have people from whom you can ask. In there (remote office) you are alone.

At first I was alone, but when Tiina came I started to question: do you remember how this is done. At first the communication did not work before Tiina came. It helped a lot. It helped that you can always ask. Well it is possible to phone or send email but it's more difficult compared to situation where it is possible that other comes and shows, that put that over there.

One challenge remote workers faced was lack of professional communications connection. Several virtual team members missed substantial professional discussion with experts in teams where single team members worked in different remote offices. In remote offices, persons from other teams might have worked there also but it was not possible to discuss with them professionally about own team's topics and work tasks, because they did not have same kind of professional competences. It was easier to discuss about work related topics with team members compared to other team members who worked at the same office. Lack of professional discussion partners was felt to be development area concerning professional development and feeling of security.

When there were at least two persons at the same team in the same office it was easy to ask about work related topics and have a spontaneous discussion. When there is someone to talk to about professional topics it creates a feeling of security and decreases the feeling of loneliness. Some of the team members expressed feelings of loneliness because they lacked professional discussion partners. Lack of professional discussion partners, and the feeling of loneliness, decreased work motivation. Though, as a whole it did not have significant effect to work motivation because feelings of loneliness were present only occasionally.

4 DISCUSSION

The virtual working context has some challenges concerning work load and work well being. Social well being at work is an especially challenging factor. Human beings seem to be "social animals" and, in many cases, miss social contact with one another. It seems that, despite the possibilities offered by electronic communication, people miss face-to-face contact. With help of electronic communication tools it would be possible to contact team members despite physical distance and not feeling isolated. But it still seems that people are not quite yet used to communicating with electronic tools as naturally as face-to-face. For example, in this study, workers did not feel isolation at all if there was someone from same team with them at the same office. So, physical proximity was still an important factor for workers' well being.

Physical distances set some challenges that are not so easy to solve, even with electronic communication tools. Because of physical distances it is hard to sense team members' emotions and, because of that, offering help and empathy can be hard but definitely not impossible. Regular communication with team members and with supervisors helps to recognize problems and different states of mood before things get too bad.

Work satisfaction and work well being are subjective feelings. Some people like more virtual working than others. Some are used to working by themselves and don't miss the physical presence of other team members as much as other people might. For people who miss social contact and the physical presence of other team members a lot, a virtual working context can be challenging and, for them, feelings of isolation and loneliness are likely.

In general there were quite a few work loading factors in virtual teams Many work load factors are independent of working context. In many cases, the virtual working context itself is not the cause of work load factors. For example hurry, stress and feelings of insecurity can exist also in co-located office. Though, in the virtual organization context these elements can appear easily if things are not working, or if there are not clear rules for communication and working. By discussing and agreeing communication rules, and with organization citizenship behavior, it is also possible to avoid feelings of insecurity amongst personnel and decrease stress and hurry.

REFERENCES

[1] Armstrong, D. & Cole, P. 1996. Managing distances and differences in geographically distributed work groups. In S., Jackson & M. Ruderman (Eds.) Diversity in work teams. Research paradigms for a changing workplace. Washington: American Psychological Association, 187−215.

[2] Armstrong, D. & Cole, P. 2002. Managing distances and differences in geographically distributed work groups. In P. Hinds & S. Kiesler (Eds.) Distributed work. Cambridge, MA: MIT Press, 167−186

[3] Bailey, D. & Kurland, N. 2002. A review of telework research: Findings, new directions, and lessons for the study of modern work. Journal of organizational behavior, 23, 383–400.

[4] Cooper, C. & Kurland, N. 2002. Telecommuting, professional isolation and employee development in public and private organizations. *Journal of Organizational Behavior*, 23: 511–532.

[5] Dubrin, A. 1991. Comparison of the job satisfaction and productivity of telecommuters versus in-house employees: A reserach note on work in progress. *Psychological Reports*, 68**,** 1223–1234.

[6] Feldman, D. & Gainey, T. 1997. Patterns of telecommuting and their consequences: Framing the research agenda. *Human Resource Management Review*, 7**,** 369–388.

[7] Fisher, K. & Fisher, M. 2001. The distance manager. A hands-on guide to managing off-site employees and virtual teams. New York: McGraw-Hill.

[8] Gibson, C. & Gibbs, J. 2006. Unpacking the concept of virtuality: The effects

of geographic dispersion, electronic dependence, dynamic structure, and and national diversity on team innovation. *Administrative Science Quarterly*, 3, 451–495.

[9] Kokko, N. & Vartiainen, M. 2005. Hajautetun työskentelyn vaatimukset ja kuormitustekijät. Työsuojelurahasto tutkimusprojektin loppuraportti. Teknillinen korkeakoulu.

[10] Kurland, N. & Bailey, D. 1999. Telework: The advantages and challenges of working here, there, anywhere, and anytime. Organizational dynamics 2, 53−68.

[11] Maslow, A. 1943. A theory of human motivation, Psychological review, *4*, 370−96.

[12] Mortensen, M. & Hinds, P. 2001. Conflict and shared identity in geographically distributed teams. *The* international journal of conflict management, 3, 212−238

[13] Nakari, M. 2003. Työilmapiiri, työntekijöiden hyvinvointi ja muutoksen mahdollisuus. Jyväskylä Studies in education, psychology and social research 226. Jyväskylä: Jyväskylän yliopisto.

[14] Pessi, Y. 1999. Työilmapiiri. Helsinki: Hakapaino oy.

[15] QPS Nordic – käsikirja. Pohjoismainen työn psyykkisten ja sosiaalisten tekijöiden yleiskysely 2001 Työterveyslaitos: Helsinki.

[16] Sivunen, A. 2007. Vuorovaikutus, viestintäteknologia ja identifioituminen hajautetuissa tiimeissä. Väitöskirja. Jyväskylä: Jyväskylän yliopiston julkaisuja.

[17] Van Aken, J., Hop, L. & Post, G. 1998. The Virtual Organization, a special mode of strong inter-organizational cooperation, in Hitt, M. Nixon, R. & J. Ricart (eds.) Managing Strategically in an Interconnected World: Chichester : John Wiley & Sons, 301−320.

[18] van Knippenberg, D. 2000. Work motivation and performance: a social identity perspective. Applied psychology: international review, 3, 357−371.

[19] Vartiainen, M. & Hakonen, M. 2002. The functionality of virtual teams. In proceedings of 6th international workshop on teamworking, 16−17 September 2002, Malmö, Sweden, Malmö university, 361−383.

[20] Vartiainen, M., Hakonen, M. & Kokko, N. 2004. Degree of virtuality, well-being and performance in dispersed teams and projects. Proceedings of 8th International Workshop on Teamworking (IWOT 8), Treir, Germany, September 16−17, 2004.

[21] Zaccaro, S. & Bader, P. 2003. E-leadership and the challenges of leading eteams: minimizing the bad and maximizing the good. Organizational dynamics, 4, 377−387.