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Organizational readiness: a case study of participatory interventions in SMEs

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Abstract

There is a need for an increased understanding of organizational readiness in relation to interventions. The study examines the implementation of the PoWRS model in four case companies. During the implementation period that companies have been interviewed, answered surveys and employees participated in a chronicle workshop. The four case companies implemented the PoWRS model with varied success, and our investigation of change readiness is especially based on the situations where the companies experienced difficulties with implementing the model.

The intervention process lasted for 4-6 months in the four companies. All four companies managed to follow the two first steps in the model. From there on three of the companies continued following the model, whereas the fourth company never managed to establish clear supporting activities related to the two chosen changes.

The study shows that there are some overall aspects that affect the process. The aspects are 1) Organizational design, 2) Company history, and 3) Organizational context. The organizational design relates to the organization of work, management support, and participation. Company history concerns the previous experiences with change processes. Finally, organizational context deals with state of the market.

Based on our findings we would like to include two more premises to the PoWRS model. The first premise regards the organization of work, because the model needs to take the organizational set-up into account. The other premise relates to management support, which should include both support from top management and support from first line manager.

Keywords

SMEs, Organizational readiness, interventions, multi-level participation,
Introduction

The concept of change readiness is widely acknowledged as an important prerequisite for gaining success in organizational change processes (e.g., Armenakis, Harris, & Mossholder, 1993). However, focus has mostly been on individual readiness e.g. self-efficacy, and not so much on organizational readiness e.g. the importance of organizational processes and context. Vakola (2013) and Rafferty et al (2013) thus call for an organizational and multilevel perspective on change readiness. In occupational health and stress interventions an organizational and multilevel perspective is common in research studies, yet the concept of change readiness has only begun to gain footing (Nielsen, Randall, Holten, & Gonzalez, 2010). More knowledge about organizational readiness in interventions is thus needed.

In the present paper we focus on the concept of organizational readiness in occupational health and stress interventions. Our aim is to investigate what aspects are important in relation to organizational readiness when implementing the Prevention of Work Related Stress (PoWRS) model in small and medium sized enterprises (SMEs). The PoWRS model is a multi-level intervention model, which was developed in a previous research project (Ipsen & Andersen, 2013) for large knowledge intensive companies. For the purpose of the present research project the model has been customized to fit SMEs. The customized PoWRS model focuses on using in-house resources and a central idea is that a specific change is chosen, developed and implemented in a collective process facilitated by in-house employee resources.

In the present study we introduced the PoWRS model in four SMEs in Denmark. The four case companies implemented the PoWRS model with varied success, and our investigation of change readiness is especially based on the situations where the companies experienced difficulties with implementing the model.

The paper is structured as follows; first we present our method including the PoWRS model. Then we present our theoretical perspective on organizational readiness. Afterwards we present our findings and discussion, and finally we conclude.

Method

Case companies

Four Danish companies participated in the intervention project and applied the PoWRS model. The companies were recruited via phone contact, the researchers’ own network, and advertisement in branch magazines and on LinkedIn. Two of the participating companies are in the IT industry, whereas the two other companies are in the manufacturing industry. Company data is presented in Table 1. The companies are anonymized and are presented according to size.

Data collection

The intervention was followed by the research team. The research team observed the planned activities and progression of the interventions at onsite visits at the four companies. Handwritten notes were used to document the observations. Furthermore interviews were made with selected project participants and other relevant stakeholders during the intervention. In all, 53 interviews were conducted. Each interview was recorded and thereafter transcribed. All participants were also asked to answer three questionnaires during the intervention. The interventions were evaluated at each company in a Chronicle Workshop (Baungård Rasmussen, 2011). Between four and six employees participated from each company. Three rounds of questions were asked in the Chronicle Workshop:
1) Which important changes have occurred during the last six months that have affected your work?,
2) which important changes in your work have you discovered in relation to the two interventions?,
and 3) which factors have impacted the interventions? Furthermore, surveys have been made during
the process. An overview of the data collection activities are shown in Table 2.

The research team did not participate in the daily steps of implementing the interventions. However,
we did help the company project groups with interview techniques and how to develop interview
guides if requested. We used the inquiries from the project groups to further improve the PoWRS
model. Improvements could be more clear information about the use of activities and tools.

The PoWRS model – an intervention model
The PoWRS model consists of three phases and a set of related activities where both employees and
managers participate in order to explore their workplace. In a collaborative manner the employees
and managers evaluate and redesign their work practices, organizational design and implement
change (Andersen & Ipsen, 2010; Ipsen & Andersen, 2013; Sørensen & Holman, 2010). In Phase 1
the need for a primary intervention is assessed. Initially the senior management should commit to
support the approach and earmark resources for the intervention. The project group is also set up at
this point and should be constituted with three to five members. The project manager should be a
manager. The other members should be the two employees who act as local in-house facilitators. The
role as in-house facilitator should be appointed to employees who are trusted and have a good sense
of what is going on in the organization. One of their tasks is to ensure that everyone is listened to and
involved in the process.

In Phase 2 the work and workplace is explored by conducting two FishBone workshops (Sørensen,
2010) inspired by Ishikawa (Ishikawa, 1968). One workshop is for the employees and the other for
line- and team managers. Focus is the same; the employees, their working life and more specifically
what excites and stresses them in their job. A “Multi-Voting” session (Gray, Brown & Macanufo,
2010; Jungk & Müllert, 1981) directly follows the FishBone workshops. In this session employees
and managers together vote for which work conditions they think should be changed during the
project period. The final decision on the two changes is made by the project group after interviewing
all colleagues. The intervention is initiated with a Kick-Off event.

In Phase 3 the organizational-level changes should be implemented and continuous evaluations and
adjustments should be made subsequently (Ipsen & Andersen, 2013). The changes are accomplished
by being systematic both in relation to investigating, initiating and implementing the changes. In
order to secure primary preventive changes it is of key importance the all members of the
organization participate and furthermore that the changes are integrated into existing workplace
activities. Some of the activities could be department meetings, task planning or LEAN whiteboard
meetings.

The project group and the facilitators are responsible for ensuring momentum by continuously
initiate activities. It is important to keep the pace in order for the intervention to succeed. During the
process the project group meets regularly to evaluate the process and the results. The project group
should also present the results at department meetings in order for the rest of the employees to
achieve information and discuss progress. This is an opportunity for ongoing reflections,
improvement and adjustment of these when working with changes over a longer period of time. This
process can help to ensure that the changes are embedded both in the company and also in the
specific activities (Dahler-Larsen, 2001; Murphy, 1988; Newell, 2002). It is recommended that the
companies keep a sharp focus continually during the process, this can be done by using visualization
tools (Gray, Brown & Macanufo, 2010; Rasmussen, 2008; Womack, Jones & Roos, 2007). The
visualization keeps the process present in the minds of the participants.

At the first meeting with the companies we presented the premises for participating in the intervention. These premises were important because the intervention model was developed on the basis of them. The premises were (Ipsen & Andersen, 2013):

- Change is a joint process, it is therefore important that both employees and management participate
- Changes must focus on daily practice
- Changes should be integrated into existing tasks
- Tacit knowledge about problems and solutions should be made explicit
- The intervention process should be given status equal to other tasks
- The process should be driven by an internal facilitator, who is given allocated time for the task
- Progress and results should be visualized physically

The four participating companies all accepted the premises and wanted to participate. During the intervention process the companies decided themselves the specific changes that they wanted to implement. The changes were closely related to the companies and it was not possible to compare across the companies.

**Implementation of interventions in the case companies**

Each of the participating companies managed to complete all steps in the model up to and including Kick-Off. They also managed to choose two changes for their intervention. The selected changes for each company are listed in Table 3. Three of the companies also developed ideas for supporting activities and presented them when the two changes were presented to the employees and managers at the Kick-Off session. The supporting activities all took point of departure in the daily tasks at the companies.

From there on three of the companies continued following the model, whereas the fourth company (Company 3) never managed to establish clear supporting activities related to the two chosen changes. Generally, Company 3 did not follow the model. First, they postponed the entire intervention for three weeks after the FishBone workshop was conducted. Then the employees did not conduct the Kick-off survey and at the end the Chronicle workshop was cancelled. Since the intervention has been delayed we have not received answers from the completion survey and the completion interview with the manager has not been carried out as well. In Company 1, 2 and 4 they all began implementing their changes. The implementations were based on the identified supporting activities and ideas for new supporting activities were developed during the process.

After a period where there had been no progress in Company 3 we were invited to discuss the process with the project group, we also observed two LEAN whiteboard meetings the same day. We could see that quality was an important issue at the whiteboard meetings and discussed the possibility of merging the whiteboard meetings focus on quality with the intervention’s focus on quality with the project group. Afterward the intervention whiteboard was moved so it was next to the LEAN whiteboard. In the interviews, made a couple of months later, it was stated by all interviewees that they had never succeeded in merging the two whiteboards together.

The intervention process lasted for 4-6 months in the four companies. In Company 3 the project was ended even though it never really got started. The two in-house facilitators did not want to continue and the first line manager came to the same conclusion.
Theoretical perspective

Change projects may not produce the intended outcome because organizations and their members are simply not ready (Armenakis et al., 1993). Researchers thus find initial readiness for change projects important if the project should succeed (Holt & Vardaman, 2013). Many definitions of change readiness exist but regard mostly individual readiness. Armenakis (1993) define individual change readiness as an individual’s “belief, attitudes, and intensions regarding the extent to which changes are needed and the organization’s capacity to successfully undertake those changes”. Vakola (2013), however, argues that the literature does not differentiate between individual and organizational change readiness and she thus calls for a multilevel perspective. Rafferty et al (2013) support that a multilevel perspective on readiness is needed, but is yet unexplored.

According to both Vakola (2013) and Rafferty et al (2013) change readiness can exist at three levels in an organization; 1) micro level, 2) meso level and 3) macro level. The micro level refers to the individual and is reflected in an individual’s proactive and positive attitude towards change. The meso level refers to teams or work groups. Group readiness is a group’s capacity to change and is shaped by group norms. The macro level refers to the whole organization. Organizational readiness is thus the organization’s capability of implementing change. Researchers have related specific factors to influence change readiness at the different levels.

At the individual level, change readiness is influenced by what the individual believe regarding 1) how appropriate the proposed change is, 2) how committed and supportive management is, 3) how capable employees are of implementing the proposed change, and 4) how beneficial the proposed change is (Holt, Armenakis, Feild, & Harris, 2007; Holt & Vardaman, 2013). Rafferty et al (2013) also link change readiness at the individual level to the individual’s own beliefs or perception of change. At the group level, Rafferty et al (2013) point at group leaders as influential on group change readiness: “Group leaders who articulate a group-level vision and who display emotional aperture will develop positive group beliefs about change”.

At the organizational level organizational mechanisms, processes and policies such as organizational structure, culture, climate, leadership and commitment effect change readiness (Vakola, 2013). Eby et al (2000) argue that organizational members’ perceptions of the organization’s change readiness are based on the individual’s unique interpretation of the organizational context. In a study of change readiness in relation to the implementation of team structures Eby et al (2000) propose three classes of variables that might be related to the organization’s change readiness. These are: 1) individual attitudes and preferences, 2) work group and job attitudes, and 3) contextual variables. They find that all three classes of variables were important in understanding perceived readiness for change, however, only the following specific variables were found significant: preference for working in teams, trust in peers and flexible organizational policies and procedures.

Most of the change readiness literature belongs to the field of organizational change management. However, recently change readiness has been taken up in occupational health and stress intervention literature. Nytrø et al (2000) focus on individual change readiness and suggest that it is wise to monitor employee attitudes towards interventions to find if the intervention is appropriate. Saksvik et al (2002) elaborate that change readiness can be assessed prior an intervention in a pilot study. Nielsen et al (2010) also identify change readiness as an important characteristic of the intervention preparation phase, but differentiate between employee readiness and organizational readiness. Employee readiness is influenced by the employees own perceptions of the current situation and
need for change, whereas organizational readiness is influenced by organizational structures and organization of work.

To summarize, at the individual level self-efficacy (the individual’s perceived ability to cope with change) is important. At group level, group leaders influence change readiness, and the organizational level organizational mechanisms, processes and policies as well as context play an important role.

Findings & Discussion

In the following we present and discuss our findings in relation to change readiness. From the cases it is clear that the notion of organizational readiness consists of many aspects, which joint together can give information about whether the organization is ready for change. Our findings can be categorized into three overall aspects: 1) Organizational design, 2) Company history, and 3) Organizational context.

Organizational design

Organization of work - teleworkers and shiftwork

We observed that the way the case companies organized their work at the present stage had an influence on how well the intervention process was implemented. Departments with either teleworkers or shiftwork had difficulties in keeping momentum and keeping a high level of communication and visibility during the intervention.

In Company 2, in one of the departments teleworkers came to the office early in the morning to collect their equipment and then went out to different work locations. In this department they did not have a tradition of collective meetings, so no natural occasions existed for the employees to meet and develop or implement the intervention. The out-of-the-house work locations also influenced the visualization of the intervention. The visualization object was displayed in the main office. The teleworkers, however, seldom came by and therefore visualization was never integrated as an evaluation tool.

In Company 3, employees worked in three shifts. Shift rotations made it difficult to gather all employees in the participating departments at the same time. When workers had to be gathered it interfered heavily with the planning of the production and with high costs. However, management succeeded in gathering almost everybody to the Fishbone and Kick-off session. But in the following process employees did not have any occasions where they all met again to develop or implement the intervention. All the intervention activities e.g. Fishbone, interviewing colleagues and in-house facilitators reporting back to the collective took place during the day shift. Consequently workers who primarily worked night shifts did not hear much about the project and did therefore not participate actively in the project.

The organization of work show to be important when implementing an intervention. The PoWRS model is a participatory model that requires that all the participants contribute and thus meet on a regular basis to develop and implement the changes. In the cases with teleworkers and shiftwork it becomes difficult to gather everybody and thus continuously create and keep awareness of the intervention. In the PoWRS model we did not specify any requirement to the organization of work. However, organization of work in relation to the possibility to gather people on a regular basis or at least secure communication should be considered when refining the PoWRS model.

In relation to organizational readiness teleworkers and shiftwork have only gained little attention. However, Cunningham et al (Cunningham et al., 2002) found that shift work is “linked to a lower
readiness for organizational change scores and less participation in re-engineering activities”. It could thus be relevant to discuss further how companies with either shiftwork or teleworkers can respond to a need for change.

Management support

Top and senior management support is often stated to be an important part of a successful intervention process (e.g. (Coffey, Dugdill, & Tattersall, 2009; Kompier, Geurts, Grundemann, Vink, & Smulders, 1998; Kompier, Cooper, & Geurts, 2000)), thus three important premises concerning management support were emphasized in the PoWRS model. These are: 1) management should participate, 2) resources should be allocated for the intervention, and 3) the intervention should be given equal status with other tasks in the company. In our case study we observed that it is not enough with top management support, first line managers, those who are engaged in daily activities, also need to be committed and supportive for the intervention to succeed.

In all of our four cases it is top management who initially brings in the intervention project in the company and commits to the premises of the PoWRS model. However, it is only in Company 4 that the top manager is also the daily manager and therefore has a direct involvement in the implementation of the intervention on a daily basis. In the other three companies the responsibility for the daily implementation of the intervention is delegated to first line managers of the involved departments. In one of the three departments in Company 2 and in Company 3 we observed, that the first line managers became a bottle neck for implementing the intervention, although resources were allocated and top management clearly communicated its support.

In Company 2, in the department with teleworkers, the department manager had only recently been appointed as manager when the intervention began. The former manager was promoted to be above the department manager but was still in the department. The new department manager was respected for his technical competences by his employees. However, as manager he was very cautious and hesitating, especially in the beginning and that gave room for the former manager to still have a saying in the daily activities. The former manager was skeptical of the intervention project from the beginning, so the unclear distribution of responsibility among the two managers affected the daily implementation of the intervention, especially because field tasks were prioritized over the intervention project. In Company 3 the department manager initially showed an interest in the intervention project, however, in all of the interviews with him he refers to the project as the DTU (Technical University of Denmark) project, showing that he has not taken real ownership of the project. The lack of ownership also showed when we asked him to distribute the Kick-off and the completion survey, as he never did it. The lack of ownership can be ascribed to the turbulent situation the company was in with declining orders.

Our findings suggest that the notion of management support should not only cover top management support, but also first line management support. Support from top management is important because resources have to be provided. Support from first line management is important because it is these managers who shall implement the intervention in the daily activities. Furthermore they have a feeling with the department and the employees and is thus in a position to motivate the employees and communicate the relevance of the intervention. The first line managers are those who “walk the talk”, so to speak.

Participation and decision making processes

Researchers argue that interventions are more likely to succeed if a participatory approach is used (Nytrø et al., 2000; Semmer, 2006). The PoWRS model relies on a multi-level participatory approach where both managers and employees participate and collectively make decisions about the
development and integration of the intervention. In Company 3 we observed that the employees were not accustomed to participate in decision making processes. They had implemented their own LEAN concept in the company, where all decision-making authority was at the manager-level. Every morning each department discussed production problems and product errors at a LEAN whiteboard meeting. A team manager facilitated the meeting and the employees reported what problems and errors they had experienced since yesterday’s meeting. However, employees were only contributing to reporting errors, finding the solutions were not a part of the meeting and were left for management to solve. The company’s interpretation of LEAN thus seems to be in opposition to the PoWRs model when it comes to involving employees. In Company 3 the employees never took ownership of the intervention project and expected the in-house project group to take the responsibility and implement the process. From our findings it is clear, that it becomes difficult for the employees to be given authority to make decisions in relation to the changes when they are used to not being included in decision-making processes. As a result, the tacit knowledge possessed by the employees is not made explicit, and possible solutions are not presented. The lack of participation from the employees becomes an underlying barrier for the change process in the company. In relation to change readiness it thus important to assess how much employees are accustomed with participating in decision-making in change processes.

Company history

Previous experiences with change processes
In all four cases the companies have had previous experiences with change processes and in some of the companies it had an effect on the implementation of the intervention. In Company 4 they have experienced many change processes, the changes have been related both to work processes and to reorganization of the company. One change processes they have experienced was the implementation of SCRUM (agile software development framework), and later on withdrawal of the SCRUM approach. They have also changed owners three times and have thus been reorganized. It is the same story in Company 3, but where Company 4 primarily has had positive experiences with changes, Company 3 had a long range of failed change processes. When the company implemented LEAN the process was by the employees perceived to be a top-down managed process, and in their opinion it was not a successful change. The implementation of LEAN was done without employee participation and the communication about the process was perceived to be at a minimum.

In Company 4 the history with many change processes has made the employees perceive changes as positive, and they are very enthusiastic about changes. In Company 3 it has been the opposite. The employees seem to suffer from change fatigue. One of the premises for initiating the PoWRs intervention was that the employees should participate actively in the whole process. Employee participation does not correspond well with change fatigue, which means that in Company 3 it was very difficult to keep the participation of the employees.

In relation to organizational readiness it can be difficult to detect the change fatigue at the first meeting with the companies because the meeting is held with management and not employees. In relation to Company 3 the top management was fairly new and keen on making changes, and the first impression of the company was that it was ready for change. The change fatigue came to show during the process, where it became clear that there was a lack of interest for driving the process. Our findings correspond well with findings in the change management literature, where positive experiences with changes are associated with a positive attitude towards future changes, and negative experiences creates negative reactions when new changes are presented (Bouckenooghe, 2012; Rafferty & Restubog, 2010).
We can conclude that particularly change fatigue can be very difficult to defeat. However, it is
important to assess in relation to change readiness.

**Organizational context**

*State of the market*

Some conditions will affect the processes during the intervention. The financial crisis has been one of such conditions.

In Company 1 the employees could sense the increased pressure from the management in order to produce, and during the FishBone workshop it was clear that many of the employees were afraid of losing their job. During the intervention process Company 3 first experienced a period with extreme workload followed by a period with fewer orders and thereby few tasks at hand which led to workforce reductions. The irregular flow of orders means that when there are few orders the employees are asked to take time off to counterbalance overtime from periods with extreme busyness.

The financial crisis has affected both Company 1 and Company 3, but it has not had the same effect on the intervention processes. Company 1 succeeded in their intervention at a time where they were extremely busy and made the best financial result so far.

Even though Company 1 experienced extreme busyness they have managed to follow the premises and thereby use the model to make changes at the workplace.

In Company 3 it has been difficult for them to fulfill the requirements about participation because it is difficult to maintain attention when very few people are at work. It was also difficult to give the change process equal status as other tasks because it was extremely important for the company to make products when they received an order.

During the intervention it becomes clear that in Company 3 the irregular flow of orders is a hindrance for creating a continuous process for the employees, since they are either very busy working or order to take time off.

The aspects about state of the market have been included because it has had an effect on particular one of our cases. However, it can be difficult to address it and predict the influence when planning interventions.

Rafferty and Restubog (2010) acknowledge that contextual factors influence employees’ response to changes. In our cases the influence from the context is clear when the contextual factors are negative.

**Conclusion**

Organizational change readiness is gaining increased focus in occupational health and stress literature. However, we argue that the concept needs to be expanded excessively. First of all, organizational readiness is not just about employee perception, there are many other aspects that also affect an intervention and therefore could be included in the notion of organizational readiness. We also argue that it is not sufficient just to discuss whether organizational readiness is at employee level or at organizational level, because it is not clear what constitutes the organizational level or the employee level.

In the present paper we have presented insights from our four case studies to open up and elucidate the organizational change readiness concept. Overall we have found that organizational design, company history, and the organizational context somehow influence the company’s level of change readiness. Our analysis is not exhaustive but serves as a first step in opening up the change readiness concept, more research is therefore needed.

Based on our findings we would like to include two more premises in the PoWRS model. The first premise regards how the work is organized – it is important to have an organizational set-up that ensures employee participation. The second premise regards management support; both top-management and first line managers need to be supportive for the intervention to succeed.
Tables

<table>
<thead>
<tr>
<th></th>
<th>Company 1 (AB)</th>
<th>Company 2 (LE)</th>
<th>Company 3 (AL)</th>
<th>Company 4 (VB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company size (overall number of employees)</td>
<td>187</td>
<td>150</td>
<td>116</td>
<td>31</td>
</tr>
<tr>
<td>Number of participants in the intervention</td>
<td>36</td>
<td>37</td>
<td>25</td>
<td>31</td>
</tr>
<tr>
<td>Number of participating departments</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
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</table>

Table 1. Size of the participating companies and number of participants

<table>
<thead>
<tr>
<th></th>
<th>Company 1</th>
<th>Company 2</th>
<th>Company 3</th>
<th>Company 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>FishBone survey</td>
<td>31 respondents</td>
<td>28 respondents</td>
<td>22 respondents</td>
<td>22 respondents</td>
</tr>
<tr>
<td>Kick-Off survey</td>
<td>24 respondents</td>
<td>21 respondents</td>
<td>N/A</td>
<td>15 respondents</td>
</tr>
<tr>
<td>Kick-Off interview</td>
<td>4 interviews</td>
<td>3 interviews</td>
<td>3 interviews</td>
<td>3 interviews</td>
</tr>
<tr>
<td>First follow up interview</td>
<td>4 interviews</td>
<td>5 interviews</td>
<td>5 interviews</td>
<td>5 interviews</td>
</tr>
<tr>
<td>Second follow up interview</td>
<td>5 interviews</td>
<td>4 interviews</td>
<td>4 interviews</td>
<td>5 interviews</td>
</tr>
<tr>
<td>Chronicle Workshop</td>
<td>5 participants</td>
<td>4 participants</td>
<td>N/A</td>
<td>6 participants</td>
</tr>
<tr>
<td>Completion interview</td>
<td>1 interview</td>
<td>1 interview</td>
<td>N/A</td>
<td>1 interview</td>
</tr>
<tr>
<td>Completion survey</td>
<td>22 respondents</td>
<td>30 respondents</td>
<td>N/A</td>
<td>22 respondents</td>
</tr>
</tbody>
</table>

Table 2. Overview of data collection activities

<table>
<thead>
<tr>
<th></th>
<th>Company 1</th>
<th>Company 2</th>
<th>Company 3</th>
<th>Company 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change 1</td>
<td>Polite tone, more cooperation and team spirit</td>
<td>Well defined tasks</td>
<td>Improved quality: flawless subjects and components</td>
<td>Better project management</td>
</tr>
<tr>
<td>Change 2</td>
<td>Visible and consistent manager</td>
<td>Collegiate spirit, unity and feedback</td>
<td>Improved management: Recognition and employee involvement</td>
<td>More recognition and feedback</td>
</tr>
</tbody>
</table>

Table 3. Overview of changes in the four companies
Figure 1. The PoWRS model
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