

Lessons in Survey Feedback

Sensemaking and learning in organizational change

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Summary

The central question in this article is how to improve organizational change by stimulating joint reflection, sensemaking and learning in organizations using the method of survey feedback. Interactive feedback sessions of research results on the factors hindering organizational change offer opportunities to understand the reasons underlying failure and success and stimulate interaction processes as well as a joint search process for alternative action. Making sense together of the changes can help people in organizations learn to handle future change processes more effectively. We present a case study in which barriers to organizational change were examined and discussed with all organization members of a Dutch institution for socio-cultural work involved in a change process. We investigated the factors underlying the problems experienced by the organization in a large change process in which all organization members were involved. Several interviews were held and a questionnaire was used to map the characteristics of the organization, management of the change process and to give insight into the experiences organization members had with the change process. This questionnaire was distributed among all organization members concerned. We then organized and facilitated feedback on the issues raised in the interviews and the questionnaire to all organization members. In interactive sessions managers, team members and researcher together tried to understand factors underlying the difficulties in working together in the change process. The process of feedback sessions, exploration of the data by team members and the process of joint sensemaking underlying our research approach are described and explained from a social constructionist perspective in this article. Some of our conclusions are that joint sensemaking in change processes can help people in organizations engage in learning processes and, in interaction, reflect on their actions and the effects of them. Furthermore, we have learned what prerequisites are for feedback sessions to be effective and how initiative and creativity can be stimulated.

Introduction

In complex change processes, where problems are complex but known, and people have ideas for possible solutions, dialogue and sensemaking are an appropriate approach for problem solving. Complex change processes often involve changes in structure, culture and individual behavior, and require people in an organization to join in the search for solutions for shared problems in an interactive learning process. This joint search process can help people in organizations learn to solve their own problems and cope with and anticipate problems in the future (French & Bell, 1995). In order to study these processes involved in managing complex and extensive change, a specific research approach is needed. Traditional academic research is inadequate to generate knowledge about the dynamic reality of interactive learning. This research is guided by the traditional values of objectivity in the service of scientific purity. The most important objection to this type of research is that it denies the relationships between the researcher and the empirical object (Boonstra, 2000). The object is however also subject: 'it talks back' (Van Beinum, Faucheux and Van der Vlist, 1996). Better equipped to deal with the unstable, dynamic situation and the multitude of voices wanting to speak out

in organizations engaged in complex change processes, is action research. Action research concerns the application of the scientific method of searching for, sensemaking of and experimenting on practical problems requiring action solutions and involving the collaboration and cooperation of scientists, practitioners, and laypersons. One possible approach for action research is collecting research data systematically about an ongoing system relative to some need of that system. These data are then fed back into that system, actions are taken by making sense in an interactive process of participants, based on both the data and expectations that participants have. Results of actions are evaluated by exchanging experiences. The desired outcomes of the action research approach are solutions to the immediate problems and a contribution to scientific knowledge and theory as a model, guide, or paradigm (French and Bell, 1995). In action research, the researcher is working with organization members over matters that are important to them and they intend to take action based on research results. Action research can therefore be considered as being both action and research oriented (Eden en Huxham, 1996). It directly intends to create alternatives to the status quo and to promote learning at the level of norms and values. Its focus is on stimulating double loop learning (Argyris, Putnam, Smith, 1985) by engaging in dialogue, reflection on action, sensemaking and a joint search for solutions to problems, which contributes to the understanding of complex change processes. Action science in practice focuses on problem setting, as well as on means-end reasoning or problem solving. If we fail to achieve our goals we reflect on the original frame and the setting of a different problem. This first approach is referred to as single loop learning and the second as double loop learning (Argyris, Putnam and Smith, 1985). Second order learning takes place when people start questioning their own interpretation of a situation and the underlying assumptions. It concerns reflections on peoples own thinking and acting, and on the underlying assumptions that are at the basis of them: the way in which people observe and interpret, define problems, analyze and conceptualize, act and interact (Schön, 1983, Boonstra, 2000). In reflective action research, knowledge is generated in an interactive process in which the actors reflect on their actions and stop to consider the way in which they are learning and generating new knowledge. Reflective action research is directed at action, reflection and the generation of knowledge. It is about understanding ambiguous problems, initiating processes of interaction, and starting a joint search for action alternatives in order to handle problems. The point of this all is to generate knowledge and to develop theories on the processes of renewal and learning. Acquired knowledge and learning experiences must be made meaningful for others (Boonstra, 2000; Eden & Huxham, 1996). All aspects of the renewal process are communicated, giving attention to the context of study, the various voices that have made themselves heard, the conflicts and tensions that have arisen and the perspectives and reflections of the actors on their actions and underlying assumptions (Boonstra, 2000).

Reflection on action always takes place from a persons' own mental model. This is why research, as aimed at by traditional academic research, can never be neutral or objective, but can only be subjective

(Winograd & Flores, 1986). Even the apparent presence of a researcher influences sensemaking, and therefore influences a situation (Wierdsma, 1999). Van Beinum (1992) stated that in reflective action research, the relationship between subject and object is intersubjective. Both the researcher and the subject of study are social actors and beings with a sense of purpose, capability and knowledge. They are both the product and the producers of history. Compared to traditional academic research, this means that reflective action research is based on a mutual relationship. The empirical object has changed: instead of occupying a passive role that merely sanctions research, it embraces active participation. The researcher has also changed from a position of objective observer to a position of active involvement based on the principles of constructionism. The relationship between the researcher and the subject of study is explicit and collaborative, and is characterized by joint involvement in an event or social action (Van Beinum, Faucheux and Van der Vlist, 1996).

A social constructionist view on sensemaking and learning

The leading view on research has been the traditional one, which finds its origins in a logic positivistic model in the social sciences. This dominance of the logic positivistic model has led to an orientation on developing knowledge that seeks regularities and truth, or, as Wierdsma calls it, positional organizing. Positional organizing can be characterized by hierarchical ordering of people on positions and the machine as a metaphor of the design of an organization. Behavior is controlled by means of external management and control by actors positioned higher in the hierarchy. External control is an intervention from outside the system. Control in the 'machine' takes place by comparing results with the intended goals. When there is a deviation from this norm, actors from outside the system correct the system so that the intended goals can be attained after all. To do this, management makes use of a representative model of reality. This model is based on collected knowledge about 'regularities' of relations in reality, resulting in descriptions, explanations and making prediction and governance and control possible. Gathering more knowledge of regularities enriches the model and provides more possibilities for external steering and control. Managers are subsequently expected to convert knowledge of regularities into decisions: take measures. Organization members are expected to follow and conduct these measures. The model intercepts variety by means of reduction of variety based on more knowledge of regularities. This makes it a suitable method for organizing in a context in which time and change play a minor role. The suppositions of rationalism and positivism are not suited for dealing with dynamic situations (Wierdsma, 1999).

As a counterpart of positional organizing, transactional organizing presumes a reality that is in motion, a world that is *becoming*. It requires actors to be willing and able to look at reality from different points of view: adopt a multiversity perspective. Transactional organizing demands actors to reject the ontological and epistemological starting points that are at the basis of positional organizing, and change the basic principles on which their model of organizing is based: triple loop learning. In order

to enlarge competence and stimulate learning of actors in an organization, a context has to be created that allows for reflection on the functionality of interaction and interlocking meanings (Wierdsma, 1999). Reflective action research can help to create such a context and generate knowledge and learning by engaging in joint sensemaking of problems, generating action alternatives for their solution and reflecting on the level of norms and values (second order learning), and might help people reflecting on the principles underlying their points of view (third order learning). These interactive characteristics of action research are especially important because, as was stated by Weick, organizing is communication activity. If the communication activity stops, the organization disappears. If the communication activity becomes confused, the organization begins to malfunction. Continuous communication is needed to develop and maintain the exchanges and interpretations of intersubjectivity, and the shared understandings of generic subjectivity (Weick, 1995).

According to social constructionism, people construct their own reality on the basis of the experiences they have. This subjective reality helps them to understand and explain what is happening. In ambiguous situations, people are confused because of the complexity of a situation that is characterized by multiple meanings and multiple opinions of actors (McCasky, 1982). These situations require the social construction of meaning in direct interaction with others, thereby giving space to multiple voices in dialogue. Speakers and hearers engaged in talking to one another are in fact constructing the conversation; they create joint meanings and coordinate conversationally relevant acts (Kess, 1992). This means that there is not one truth, but truth is created together in interaction (Wierdsma, 1999). During action, people develop knowledge, that can then be used to adjust their actions (Wierdsma, 1999). Computational scientist Gibbs (1987) states that mutual knowledge is not only a result of comprehension, but in fact a prerequisite for it. Speakers and listeners must coordinate what they mutually know in order to truly comprehend utterances. This also holds true for their beliefs about one another's belief sets. We employ mutual knowledge in formulating our questions in conversations. This means that speakers and hearers must assume a common mental model for the knowledge and beliefs shared in the conversation; such a mental model explains how speakers frame their questions in the light of the mutual knowledge that exists between speaker and listener, and then how listeners answer them.

Interaction between actors takes place in a context of the constructions that have been produced in earlier interaction processes. The context was produced in interaction and has become a frame of reference from which reality is comprehended. Actors construct mental models in memory on the basis of interaction or 'discourse' (f.i. monologues and dialogues), and words and sentences act as cues in the construction of mental models. These mental models are constantly being altered and upgraded in line with a person's state of knowledge, past and present, and with what a discourse at a particular moment conveys. New information in the mental model can be added, old information can be changed or deleted. Mental models provide answers for how reasoning is carried out: reasoning

processes are mental operations that are applied to mental models and are supported by them (Kess, 1992). Organizations have the tendency of breaking down into different subunits or subsystems, implying different languages and different assumptions about reality, hence, different mental models. Organizational effectiveness is increasingly dependent on communication across organizational subsystems, which will depend on the ability to develop common language and a common mental model. Organizational learning therefore will require the evolution of shared mental models that cut across the subsystems of the organization. Dialogue is a first step in developing shared mental models (Schein, 199.). Combined images of realities or social constructions form a reality that was constructed by the actors and a cultural practice that comprises joint experiences that determine the direction of action. It is a process of mutual understanding in which pluriformity, multiple voices and ongoing interaction allow people to assign new meaning to their action and thinking, and to the complexity of organizing and the resulting problems; it helps them change their current mental model. Joint experience of problems arises in a dialogue of all involved about their perspectives on emerging problems and possible solutions. Exchanging images of reality and stimulating communication are central in this process, which can be stimulated by organizing workshops or conferences. Experiences from this process can result in new action-patterns that contribute to the dynamics of innovating (Boonstra, 2000). Shared understandings are created in interaction and lead to future action. This process of joint sensemaking is retrospective. Actions, and therefore problems, can become an object of attention only after they have occurred. In everyday life, retrospective sensemaking involves many short time spans between action and reflection. Memory traces are then typically fresh and undetermined, and the problems that might be encountered in joint sensemaking concerning hindsight bias can be minimized (Weick, 1995). Stimulating reflection after action might help to overcome disadvantages of hindsight bias. By acting and then reflecting, we can discover what reasoning informed our actions. Action then serves as a means of exploring a situation, and produces information that can be used for the design of future action and joint sensemaking.

Survey feedback as a sensemaking methodology

The positional point of view is represented in classical survey feedback, where feedback is often exclusively used for discussion with management and used for external steering and control. In complex change processes, limiting the distribution of research results solely to change management may result in change managers subjecting people to interventions, on the basis of their own interpretation of research results. These interventions are presumed to have a positive effect on the change process. What however actually happens is that central guidance and control increase while the effectivity of control decreases. Classical research is therefore not suited to deal with difficult problems in which many different actors are involved. A new perspective on survey feedback is using survey feedback as a methodology for joint understanding causes people, in interaction, giving

meaning to survey results and start a joint search for action alternatives (French & Bell, 1995; Boonstra, 2000).

Postmodernism states that universally valid theory development is not possible considering the constructive and context bound character of reality. The social constructionist paradigm indicates that the construction of reality originates from language, and the value of theory development can be found in that it shows us other and new ways of seeing things (Wierdsma, 1999). The question then is: how can we work on development of knowledge and acting. This research project aims to further develop a method to make organizational change processes more successful and stimulate learning within and between organizations with survey feedback as a methodology for interaction and sensemaking. Starting point is that collecting multiple perspectives on a change process, and giving meaning to these different perspectives of all involved, contributes to a successful course of the change process and reinforces learning in and the change capacity of an organization. But what is 'more successful' and what is 'learning' in this study? Learning does not have to be 'changing', but can also be reaffirmation, conservation, complication, efficacy, appreciation, community or maybe even self-destruction. It is about communication on an interpersonal and intrapersonal level in the form of reflection on one's actions and thinking, using language as its tool and repository. Language is a critical tool for reflection at both the interpersonal as the intrapersonal level and is a social phenomenon, or, learning is embedded in interaction and evolves through a continual process of mutual adjustment (Weick & Westley, 1998).

More successful in this study is what all people involved think is better in comparison with a previous situation, originating from interaction processes and a joint construction of a new reality, and not what individual academic or practitioner experts think or dictate, although our use of a questionnaire certainly does tempt to use it as such. According to Wierdsma (1995), 'better' cannot be seen apart from all actors involved. Better for one person might mean 'worse' for another. In order to make improvement possible, we need knowledge, the transactional kind of knowledge. This knowledge must have high relational and constructive quality to justify differences in opinions and definitions of quality. Dialogue or joint sensemaking can be helpful when people in an organization experience some problem that they need to overcome in order to get on with their work (Schein, 1998). Survey research can help make different perspectives on a problem visible, and may make it easier for people to engage in dialogue about these different perspectives, because it provides different, concrete and clear examples of what is going on and provides insight into the different perspectives people from different subsystems have on the situation. Survey research provides organizations with specific knowledge about barriers to organizational change. Although it is a method based on content knowledge and is therefore in fact an 'expert' method of identifying positive and negative elements in organizations and change processes, this 'content knowledge' can be used as input and method for processes, bringing interaction about. Content knowledge is then used to facilitate processes: content becomes process (De

Bruyn, Ten Heuvelhof & In 't Veld, 1998). When used as a methodology for joint understanding, people, in interaction, give meaning to survey results, construct their own reality on the basis of the experiences during and knowledge gained in interaction. This subjective reality helps them to understand and explain what is happening and start a joint search for action alternatives (French en Bell, 1995, Boonstra, 2000). Using survey feedback as a method of creating insight into barriers to change, making them open to discussion, stimulating interaction between the parties concerned and generating energy and creativity for change and learning produce useful experiences in sensemaking processes.

To gain insight into the different perspectives on the factors that contribute to or hinder change and offer a starting point for sensemaking, the Universiteit van Amsterdam has developed a methodology for collecting perspectives on organizations and change processes, composed of the use of questionnaires and dialogue on and sensemaking of research results. The questionnaire has fifteen scales, which are described in Table 1. Each scale consists of three to eight statements. Respondents are asked to indicate on 5-point scales, ranging from -2 (strongly disagree) to 2 (strongly agree) to what degree each of the 79 statements apply to the situation in their organization. This distinction is useful for reading the graphical display of the results because disagreement with statements is displayed as a negative contribution to the change capacity and agreement as a positive contribution (table 1).

Table 1 Descriptions of the Change Capacity of Organizations Questionnaire

Organization	
Goals and strategy	Clearness of the goals of an organization, agreement about these goals, external orientation of its strategy, and degree of flexibility to deal with market demands and developments outside the organization
Structure	Organization of work, levels of standardizing and hierarchy and decision making about operations in an organization
Culture	Opportunities for innovation, people oriented leadership, and cooperation within an organization in teams and between subsystems
Technology	Available information and communication technology, clearness of the use of supporting systems, fysical structures and information about work procedures.
Job characteristics	Division of labor, quality of working life, relationships with colleagues, and career perspectives in an organization
Political relations	Interests of individuals or subsystems, the division of influence, and the degree of competition in an organization
Change process	
Goals	Clearness of the reasons for change and of change objectives, and agreement about these objectives, and understanding of the change strategy
Technology	Complexity of technological adjustments, effort required from employees to implement the adjustments, and available technological support to effectuate the change
Tension	Tensions between and within teams and subsystems in an organization resulting from the change and to pressure on the existing culture

Timing	Phasing and pace of the change process, time to adopt the change, and the speed of the decision making process about the change
Information supply	Amount and clearness of information about the change process and the way an organization supplies this information
Creating support	Involvement of top managers, coaching of employees, and opportunities people have to influence the course of the change process
Change managers	Perceived competence of the change managers, their visibility, and communication between change managers and employees
Line managers	Roles of line managers in the change process, the way they deal with the change, and the interaction with their subordinates during the change process
Expected outcome	Expectations of employees regarding the development and outcomes of the change process for themselves and for the functioning of the organization
Support for change	Perceived necessity of the change and the desire of people to actively contribute to the change process

According to de Bruyn, Ten Heuvelhof and In 't Veld (1998), all parties whose support is needed for realizing certain goals, should be involved in the process. The change process influenced all organization members. To collect and make different perspectives of different subsystems on the organization and the change process visible, this questionnaire is distributed among all workers and managers involved and all are asked to give their opinion and were invited to think about and make sense of the outcomes. Schein (1998) stresses the importance of language on organizational cultures. People in organizations set their boundaries and define themselves by developing a language or 'jargon', which expresses membership and belonging. We cling to our language and thought processes even when we recognize that they are biased and block communication. The familiar categories of thought provide meaning, comfort and predictability, and differences in language may cause difficulty communicating. These differences in language may cause difficulties in communicating between different subsystems in an organization, but also between researcher and organization members. Therefore, the questionnaire is adjusted to the 'jargon' in the organization. Results of different subsystems in the organization are made visible in order to give insight in differences of opinion. The results of the questionnaire are then used as starting point for joint sensemaking sessions in which all different perspectives are exchanged in interaction.

The organization

A Dutch neighborhood based local welfare organization in a Dutch city of about 135.000 inhabitants was in 1998 confronted with a need to reorganize the entire organization, triggered by recent budget cuts and changing demands from local government and citizens. The resulting curtailment of the number of staff, joining of teams and abolishment of functions took its toll on the organization's service and employees' work. In order to improve the overall functioning and make the organization more efficient and effective, the decision was made to start a qualitative and quantitative reorganization of the entire organization. A new mission statement stressed the importance of a strong

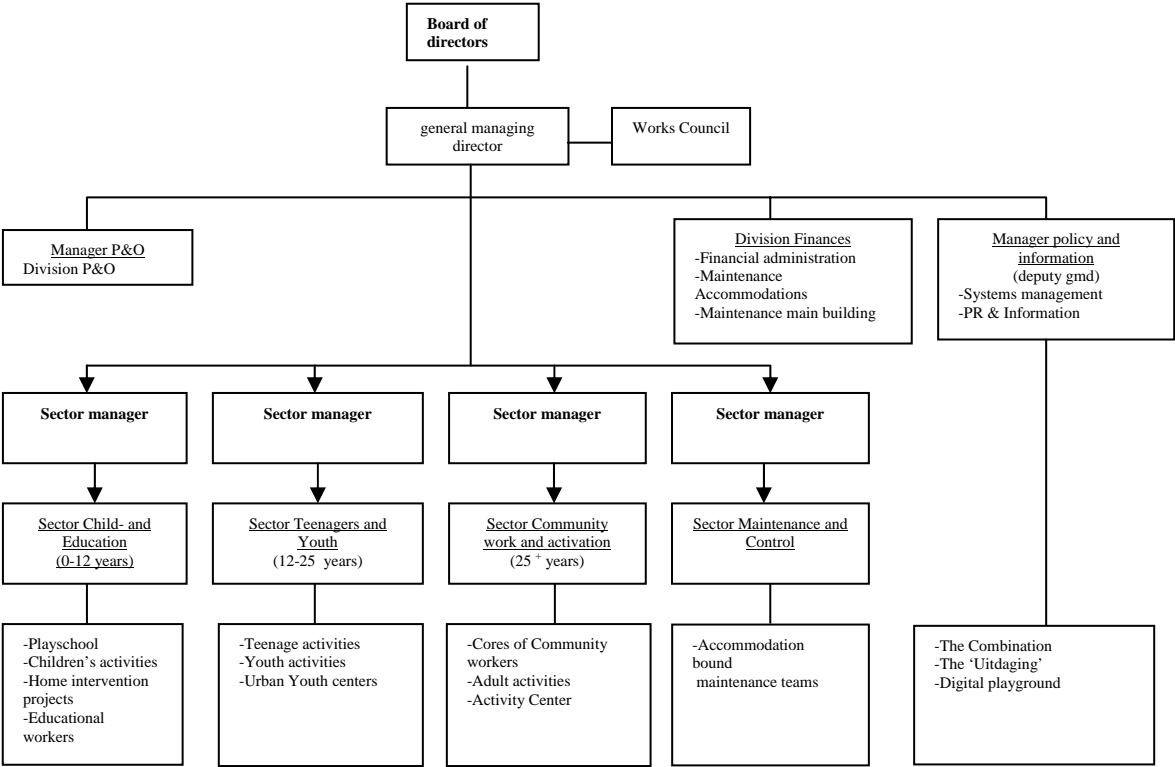
social involvement, participation, a trusting relationship with clients, integral policy, cohesion and networks. A strong presence in town was going to be realized by organizing activities for all age groups as close to people as possible, in neighborhoods and quarters. The organization attends especially to disadvantaged people. It has 250 employees in the different disciplines, and about 1.400 volunteers assisting in the activities in neighborhoods and youth centers. An external consultant helped make a quick scan is made of the organization and its problems. This scan served as a basis for the definition of five central goals and a new organization structure.

The goals of the change process were:

1. More delegation of responsibilities and competences
2. Teams and workers should be made more responsible for results
3. A smaller ‘gap’ between policy making and execution
4. More integration of neighborhood- and city-based activities and projects
5. Stimulating a wider range of job characteristics, flexibility, expertise, and career development

Two external consultants helped implement a new structure. The organization, that was until then geographically organized in six districts managed by town district managers, is divided into four functional sectors, three of which are aimed at different groups of clients: children and education, teenagers and neighborhood activities. The fourth sector cannot be considered as part of social-cultural work. This sector is responsible for the overall functioning of all accommodations the organization uses for its activities.

Figure 2: Organization diagram of the new organization



All four sectors are managed by sector managers. Together with the managing director, the deputy managing director and the head of the department of Personnel and Organization, the managers form a management team.

Each of the four sectors develops its own mission statement and goals in line with the general mission statement. A uniform sector policy functions as a binding factor for each of the units in a sector. This policy is also a starting-point for solving some of the problems pointed out by the quick scan like a low general involvement of workers in the organization, little use of the capacity and knowledge of workers and little possibilities for participation. Within and between sectors, (temporary) project groups or sub teams operate. In the different town districts, workers are organized in interdisciplinary teams, sometimes composed of workers from all four sectors, that work as self-directed as possible. Starting point for the assignment of workers to teams is the presence of a relatively permanent core group of community workers in the problem areas, assigned according to the extent of problems in a particular neighborhood. This core of workers has as its most important goal the development of district welfare programs. According to the specific needs of a neighborhood, more or less workers from the other sectors are assigned to the interdisciplinary teams. Responsibilities and competences are delegated to these teams, that have responsibility for obtaining the required results. The striving of all this is to make the 'gap' between policymaking and execution smaller, stimulate integration between quarter- and urban oriented projects and stimulate expertise and career development. The sector managers maintain the interconnections between expertise and guide workers individually. Each sector manager also functions as a coach, coaching two or three of the interdisciplinary teams.

The change process has great impact on the organization. Communication between management and employees concerning the changes appears difficult, resulting in the managing director not knowing why the change process is so difficult. The organization needs organization wide communication about mutual experiences with the changes, the way changes are handled and the new organization structure. To gain insight into the problems with the changes, and generate ideas for improving the situation the University of Amsterdam is asked to help facilitate a dialogue on the change impeding factors and a joint search for what factors hinder the change process and how the organization and its people can handle these factors and learn to change more effectively.

Changes in the organization are extensive and problems are encountered in all sectors and within most of the teams. The approach chosen consists of a large scale diagnosis of the problems, in which all organization members are involved. Reflective action research, composed of interviews, survey research and joint sensemaking of research results, supported by a participative setting in a step-by-step approach was chosen. This approach was chosen in order to avoid as much as possible the initial (subjective) ideas from the researcher or management about the causes underlying the problems with the change process, and possible solutions, but giving space to many voices in a dialogue, leading to many points of view. First, document study gave us more insight into the art and practice of the

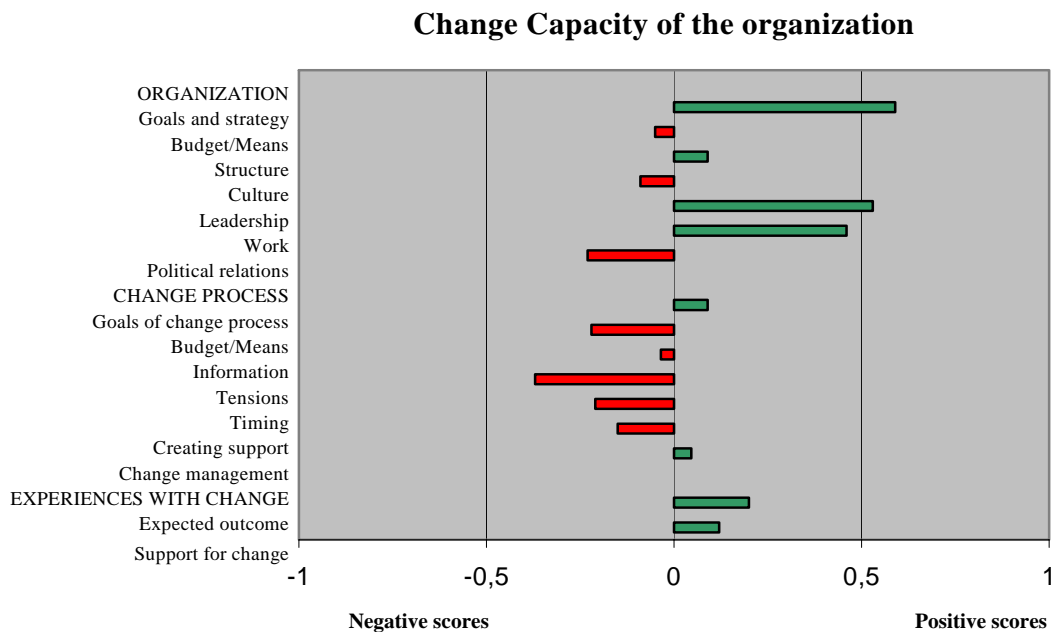
organization and the change process. Some introductory interviews were held with members from each of the sectors and of the management team, in order to get an impression of their view on the change process and the problems they encountered. Then, the methodology to collect different perspectives on change processes (Bennebroek Gravenhorst, Werkman & Boonstra, 1999) was adjusted to fit the ‘jargon’ used in the organization and enclose the aspects that, according to the people that were interviewed, were specifically important in this change process. The contents of the questionnaire were discussed with a member of the management team and again adjusted. The questionnaire was then discussed with a group of organization members from different disciplines, which lead to additional adjustments and a separate version of the questionnaire for the maintenance sector. Questionnaires were distributed and explained by the researcher and the sector managers in four sector conferences, one for each sector, and were filled in conjointly where possible. Each sector manager explained to his people that there would be sensemaking sessions about the results and that people’s participation in the process would be valued. People were given the opportunity to ask questions about the questionnaire and the process of sensemaking after results were made known. After the data were analyzed, results were first presented to the entire management team and to the works council. This was done because there were some tensions between the sector managers and the rest of the management team. Whereas organization members’ opinion about the change process was a somewhat negative one, top management of the organization were more positive. This placed the managers, being right between these two hierarchical layers, into a delicate position. They were responsible for carrying out the changes as well as for the process of workers learning to work in and adapt to the new organization. We wanted to give insight into the differences of opinion on the changes and thereby into the delicate position the managers were in. Initially, our idea was to involve the works council in this process as well, because there were some tensions between members of the works council and the management team, and we wanted both groups to get more insight into and understanding for each others position and considerations. The management team however decided that it would be best to provide separate feedback out of fear for discussions about differing points of view.

Survey results

In Figure 3, a general overview is given of the organization’s change capacity. The figure shows that some characteristics of the organization are evaluated quite positively (bars pointing to the right): the goals and strategy, leadership and the work. People were however not satisfied with the political relations in the organization (bars pointing to the left). With regards to the way the change process was handled, people were quite negative. Although people had some insight into the goals and course of the change process, they were not satisfied with the way the change process was handled and managed. The budget and means people have are not enough to realize the new situation and work in it. The information about the change process could have been better and the changes cause tensions

among workers. The timing of the change process is also evaluated negatively: changes were going too fast. Also, the support for the change that management created is evaluated negatively. The role of the management team in this change process is evaluated slightly positive.

Figure 3: Mean scores of the organization's change capacity



Note: Figures are displayed on a -1 to 1 scale because the (mean) scores do not go beyond these values and differences become more visible using this range.

Closer examination of the results on the basis of separate questions and examination of the differences between groups and hierarchical layers in the organization gave us more insight into the problems experienced. It appeared that, although many organization members knew exactly what goals were initially formulated, they had trouble understanding these goals. They did not agree with the goals of the change process and people weren't sure on how to put the goals into practice. This caused the mean result for goals of change process to be slightly positive. In line with these findings, people were dissatisfied with the information that was given about the change process, and the possibilities and facilities that were offered for communication. Workers considered the support created for the change process as insufficient, probably because of the uncertainty in the organization about the goals and the limited information supply. Regarding change management, they were reasonably satisfied with the support their own manager gave them during the change process. They were however dissatisfied with the task of the management team in guiding and monitoring the change process and communicating about the goals, the decisions that were taken, the design of the process and the results achieved. Furthermore, they were dissatisfied with the way the management team handled problems and dealt with political behavior. As a consequence, people experienced the change process as going too fast and they did not have the opportunity to reflect on and get used to the changes. Furthermore,

cooperation problems were experienced within the teams composed of the different sector members and between the sectors as a whole, and the overall workload was high. Feelings of unity in the organization were lacking and cooperation between workers from different sectors was bad. The survey results showed that on many of the characteristics measured, the management team was significantly more positive, suggesting differences in opinions on the change process between workers and management.

Processes of sensemaking: organizing feedback and stimulating dialogue

We gave feedback on the perspectives on the organization and the change process to all organization members. Because of the nature of the problems that were experienced in all the teams concerning the critique on the overall leading role of the management team and the unclearness about goals of the change process, the management team decided that the perspectives would first be presented in a large scale meeting for all organization members, in which members of the management team would also be present to join in the process and ask and answer questions. Instead of using this meeting as a direct intervention for one of the core problems in the organization, the poor communication and interaction between management team and employees, we did a few crucial things wrong. Workers doubted that the management team would take their perspectives on the change process seriously and considered them not inclined to work on solutions for the problems experienced. Therefore, only few workers attended the meeting. Also, the date and time chosen for the meeting were not convenient for many workers. We had made public on beforehand that the perspectives would also be discussed in the teams. Many workers however preferred to talk about the change process in their own team, and did not attend the meeting. All of this resulted in us having the most critical and angry group of workers attending the meeting. Although the initial attitude of the management team for the meeting was a constructive one, the skeptical attitude of workers towards the management team hindered constructive dialogue. The managing director aimed at starting the meeting with a positive point of departure in order to create a positive atmosphere, so we started out with some of the more positive results. This made people think that we were presenting unjust results, which made them angry. Others saw only the negative side of these positive results. As detailed results were presented during the meeting, people focused only on content details instead of on the larger process, as we had aimed for. The process itself was a reflection of the problems. Critique was sharp and the meeting was an exact representation of the relation that existed between the management team and employees. At that point, according to the principle of action research being action in the 'here and now' of a situation, we should have stopped the meeting and make it subject of sensemaking by asking people what had just happened, why this had happened and what underlying images of each other caused it to happen. Neither the members of the management team nor the researcher however took the opportunity to do this. Instead, some reactions from the management team were defensive at first, trying to explain why certain negative views of subsystems were obtained instead of letting the workers explain negative

points of view and search for meaning. This strengthened the workers in their critique. Towards the end management reactions towards the critique started to become offensive. Discussion arose, time was up and although we should have taken the time to solve the problems the meeting was broken off, with only the more positive half of the results presented and leaving many unsatisfied. Something else that we did wrong was that we did not introduce the idea and meaning of the session clearly, or maybe it even was not clear enough to ourselves. This may have caused different expectations of the parties involved and the meeting to escalate. As according to De Bruyn, Ten Heuvelhof and In 't Veld, a transparent process makes it attractive for all parties to participate in the process. Transparency also means that they can explore the integrity of the process and if it gives them enough opportunities to realize their own interests. Also, we did not discuss clearly enough what would be done with the research results and all the things resulting from the sensemaking process, and what people's own possibilities for action were in their own situation; i.e. we did not make clear that the future would offer space for all parties involved (De Bruyn, Ten Heuvelhof & In 't Veld, 1998).

Lesson: what went wrong?

1. *We ourselves were cause of a very negative group attending the meeting, which caused sensemaking to be from only one perspective instead of multiple perspectives*
2. *We did not make the underlying idea of the sensemaking process transparent, which made it hard for people to explore the integrity of the process*
3. *We started out with positive results in a negative group, hoping to create a 'more positive atmosphere', which gave them the impression we were 'hiding' things, which made them even more suspicious*
4. *We should have stopped the meeting and intervene in what was happening right there and then, but we didn't.*
5. *We did not turn content into process, which caused people to focus mainly on content details*
6. *We should have let people make sense of the perspectives on the organization and the change process themselves instead of explaining for them and (the managers and managing director) defending ourselves*
7. *There was an 'us versus them' attitude in both parties. We should have considered the way we wanted to discuss and make sense of the results together, better, and reflect on our own 'mental models' before starting the discussion, the effects that it would have and what we could learn from that*

A new start in organizing feedback and stimulating dialogue: lessons learned

In the weeks following the meeting, we provided feedback on the perspectives of the change process in the teams in different feedback sessions. Research results indicated that many of the problems concerned working together in teams. Therefore, it was decided that we should have our sessions, if possible, in the (larger) area teams, or, if that could not be accomplished, within the (smaller) location bound teams in which people work together on a daily basis. In the fourth sector, that is responsible for the overall functioning and maintenance of accommodations, not all workers work in teams. Because of that, a sector meeting was organized to give feedback, although some of the workers had already joint sensemaking sessions in their own team. In all sessions but one, the researcher showed

people the perspectives and asked people to make sense of them, and the coach or manager was present to ask and answer questions and to help stimulate interaction and sensemaking processes. In one of the first feedback sessions there was a difference of opinion between the team members, the manager and the researcher on how and when results should be interpreted. The people did not like the idea that we proposed of splitting up into smaller groups in order to make joint discussion after the perspectives on the change process were shown, easier and let everyone have a say in the process. They thought it would be better and easier to discuss the perspectives in the larger team. In order to avoid this discussion in the other sessions, we started by asking all larger teams if they preferred to make sense of the perspectives on the change process during the presentation as each topic was presented, or if they would like to hear the presentation first, mark the perspectives that were especially important to them and then talk about these topics in smaller groups. Almost all teams preferred to discuss the topics conjointly during the presentation, because they thought it to be more convenient to react directly to the results as they were presented, as if they were objective data. This choice however caused the discussion centering mostly on the details of research results, which might have been prevented if we had not considered the possibility of discussing the results together in the larger group during the presentation. One of the teams decided to have the results presented first and then discuss the results in two smaller groups, reporting their findings to the total team afterwards. They did this with the help of three basic questions: ‘What is happening?’ ‘Why is this a problem?’ ‘What can we and management do about it?’. The coach of this team also took part in one of the groups. The team was critical, but, on the other hand, also eager and enthusiastic to talk about their problems in a playful way. They were able to give more insight into the causes underlying the problems, had some ideas about solving them and were willing to help solve the problems. Also, almost all team members in this team had an obvious part in the discussion, whereas in the other groups, mostly a few more dominant workers took control.

***Lesson1:** presenting only overall results and making sense of results later, together in smaller groups, lets everyone participate and prevents teams from ‘drowning’ into details and helps them stay focused on the key issues*

Also, in this team and one of the other smaller teams people worked together on a daily basis and had shared mental models of the situation which seemed to make it easier to make sense of the problems they experienced. According to Hoebeker, aspects like why people work and how they deal with the tension of belonging to and working in different work systems and how people relate to one another have much more impact on their life and their work than management and organizational aspects. Legal and formal boundaries are mostly irrelevant. To make this shift of perception, we use the term ‘work system’ instead of ‘organization’ (Hoebeker, 1994). A team, working together on a daily basis can be considered a worksystem: ‘a purposeful definition of the real world in which people spend

effort in more or less coherent activities for mutually influencing each other, their fellow-men and their environment' (Hoebeke, 1994). These worksystems can also be viewed as 'subcultures', such as geographical or hierarchical subcultures, that define themselves and set their boundaries by developing a (common) language (Schein, 1999.). Culture is embodied in the language, the words, phrases, vocabularies and expressions that individual groups develop (Weick & Westley, 1999.): the way in which people interact with each other is made to routine or culture. It is important to learning according to Weick and Westley because it acts 'as a symbol and storage of past learning', and works as an instrument to communicate learning throughout the organization. The sense of commonness, sharing and mutually influencing each other makes it easier to make sense of the current situation in the organization and the problems people experienced on the basis of their shared mental model. In one of the teams people stressed the importance of finding out where and how workers from different sectors might cooperate and help each other more. In the other team, a few team members posed a clear vision about what would be important to them in the future organization concerning flexible work, and stressed their readiness to search jointly for alternative actions regarding the lack of means and the possibilities the organization has to maintain and, where possible, improve the service towards clients. This team differed from the other teams however, in that the consequences of the change process were less extensive for them than for the other teams.

The energy to change the current situation in these two teams seemed not only to come from an attempt to get away from undesirable aspects of the current situation (adaptive learning), but also from a vision of how a future situation might be (creative learning; Senge, 1990).

***Lesson2:** To be able to discuss the problems on a deeper level,
it is important that workers work together and share work experiences,
hence, share mental models.*

When asked what they thought of the dialogue sessions that were held for jointly trying to understand the problems in the organization and generating ideas in order to solve the problems, we received positive reactions from almost all teams. Engaging in an open dialogue is, according to the workers, a 'good way to make clear what the problems are and where they originate from, solve problems, and has served as a first step in creating trust and confidence'. First order or adaptive learning took place in all dialogue sessions in which all workers contributed to making sense of the problems and thinking of solutions to those problems. People's energy to change came from a dislike of the current situation and a motivation to get away (Senge, 1990). The same team as before however again seemed ahead of others, which might have been stimulated by the teams proposal of having two sessions, because they felt like one session would not be enough to make sense of survey results and think about other and new ways of acting. They said that, normally, they engaged solely in monitoring the efforts of others (e.g. management), and how they handled problems and changes. They observed the efforts from a

distance and criticized what they saw. The team said that it is generally hard to change from the position of a distant observer to an active participant that is engaged in working on solutions. They said that the meetings that we held had helped them make that shift of position. Learning in this team went beyond first order learning, to second order learning because the initial assumptions and attitude towards the management team are explored and doubted and maybe even adjusted. According to Schein, in order to be able to listen to and understand others, we have to identify the distortions and bias that filter our own cognitive processes: We have to learn to listen to ourselves before we can really learn to understand others (Schein, 199.). In the other teams, process and outcomes differed, depending on whether the meeting was held in the area teams or in workers own location team and on the atmosphere in the team. Because one of the problems seemed to be difficulties in mutual communication and cooperation, the managing director decided that the results should be discussed in the (larger) area teams which were composed of people from the same discipline but who were not working together on a daily basis, or, if that could not be accomplished, within the (smaller) interdisciplinary location bound teams in which people work together on a daily basis. People were however more open and comfortable talking about their experiences in their own location bound team than they were in the area teams. The teams were large which made conversation difficult, some of the area team members did not know each other well enough to talk about their experiences and some even did not know each other at all. This hindered the sensemaking process, because workers seemed less comfortable talking about their personal experiences in a group of people that were unfamiliar to them. Also, in these teams there were less shared mental models of the work situation, and they were not part of a worksystem, which made it harder to talk about the changes, make sense of what was going on and work on solutions for problems. In the small location bound teams, the process of jointly interpreting the research results, understanding them and searching for action alternatives was therefore easier. According to Hoebeker, only small groups to a maximum of nine people can create or discover something new and share their commitment to nurture what they have brought to fruition. They are capable of making difficult (creative) decisions. Larger groups with a maximum of about 80 people are able to debate jointly the shared meaning of the activities in which they are involved and their desired outcomes. They are not creative but 'reflective' groups because their members can start to reflect upon what the group is doing without feeling the pressure of their peers to be completely involved. The level of energy spent by the members of the reflective group may vary widely without the pressure to be equally involved, as in creative teams (1994).

Lesson 3: Communication, sensemaking processes, constructive action planning and learning are easier in smaller teams in which all different disciplines are represented, working together on a day to day basis in a work system sharing mental models

Also depending on the atmosphere in the group, the teams that were able to be more contemplative, came to a more constructive sensemaking process than those teams that experienced serious problems in their everyday work and were obviously angry about the situation they were in. In one of the teams that experienced large problems, the coach was hindered to attend to the meeting. Here team members did possess a shared mental model and were able to communicate about the problems they experienced. There was a tense atmosphere in this group and the group experienced interaction problems with some other workers from the maintenance sector who also were not present during the session. They were very emotional about the situation they were in, and were unable to engage in constructive sensemaking and problem solving and considering the problems from different perspectives. Maybe also because their manager was not there, they took the opportunity to reinforce and propagate their joint opinion of the problems they experienced. This strengthened them in their opinion that the only solution for their problems would be hard interventions and promises from the management team, and made it for this group especially hard to think of other solutions for their problems. According to Schein, there has to be some initial motivation to work together to engage in a dialogue. Also, they were little inclined to suspend their reactions (let the matter go and wait and see what more will come up) when someone said something that upsets them. Instead of dialogue, this causes people disagreeing, elaborating, questioning and focusing on the particular trigger that set them off, going down the path of discussion trying to convince one another and ultimately, unproductive debate. Only when members begin to discover some value in suspending their own reactions, the group begins to go down the path of dialogue and, ultimately, metalogue (thinking and feeling as a whole group, building new shared assumptions, culture) (Schein, 1998).

***Lesson 4:** In teams experiencing internal conflicts, joint sensemaking is difficult when not all perspectives involved are represented. Too little different voices may cause one dominant voice to prevail and this might cause people strengthening their opinions about others that are not present. Actors in this situation keep may keep each other prison in their assumptions about others.*

The dialogue sessions brought to light seven key aspects that were important for all teams. These were the unclarity of goals of the change process, problems concerning working together in teams, problems concerning the (matrix)structure of the organization, workload, differences in culture and competition between sectors, attention of the management team for workers and evaluation of the change process and resulting activities.

Workers indicated a perceived lack of guidance, overall as well as considering change management, from management team and manager. Some of the team members indicated that they expected the management team taking initiatives to work on the problems. They pointed to the expectations that they had about the leading role of manager, management team and director and stressed a lack thereof. This was in contradiction with the goals of the change process, that required workers to adopt a more

independent work style and the managers to adopt a different management style. Bion (1961) refers to this phenomenon in his concept of the dependent group. The basic assumption in this group, according to Bion, seems to be that an external 'object', a leader, exists, whose function it is to provide security by supplying the needs of the group, and who is in a position to do so. This group insists that the leader is the only person to be regarded, but at the same time shows by its behavior that it does not believe that the leader knows his job. If the leader himself feels impelled to help restore this sophisticated structure (of dependency and counter-dependency) by claiming authority as a leader (and complies to the demands and expectations the group has about his leading and guiding role) it shows that it is not only the worker who feels the need of a familiar situation, but also the leader, and, in this case, the management team. In the dependent group, benefit is felt no longer to come from the group but from the leader of the group alone, with the result that workers only feel 'helped' or 'treated' when talking to the leader of the group. This could contribute to the feelings in the teams that it was not their job to provide feedback themselves to other team members, why they always preferred to talk to the manager when they experienced problems and (because the workers understood that the manager was too busy to be present all the time) why many of them suggested that in every team someone should be appointed to take over some of the tasks of the coach. The way the management team chose to handle the problems that the workers pointed out during the research process, by starting on a plan of action, by 'designing' solutions providing the 'cure' for the problem and thereby underlining their authority position will probably stimulate the dependency structure in the organization even further, and illustrates that the management team was in fact in need of a familiar situation. Managing directors trying to work on interventions trying to change the status quo on the basis of research results is an

Lesson5: When problems center around communication between hierarchical levels, authority and dependency, it might be wise not to stimulate dependency by underlining authority positions, but try to reverse the situation by placing responsibility with the lower levels

example of organizing from a positivistic point of view: Behavior is controlled by means of (external) management and control by actors positioned higher in the hierarchy. There was a 'deviation' from the norm of what is a 'good change process', and management team tried to correct the system so that the intended goals could be realized after all. Managers were expected to take measures based on this 'knowledge of regularities'. The situation in the organization was however not stable but subject to instability and variety. This variety was intercepted by trying to reduce it based on more knowledge of regularities.

The positive learning in some of the teams, in which team members were able to make a shift from the position of the critical observer asking for a cure to that of an active participant, would be better stimulated by not taking the lead again, but by working on a shift of mind in workers, asking only questions, letting them explain and give the answers and letting them take initiative. Feedback and

dialogue sessions, in which managers are involved, might help both groups to make that shift. When management is present, obviously takes workers' problems seriously and assigns importance to their meaning, but also lets them search for explanations and solutions, workers seem more inclined to actively participate in sensemaking processes, because they sense that it has 'a use to put energy into it'. This was especially so when managers actively contributed to the process, did not impose their view on the situation on workers but asked questions and stimulated their workers to give their view on what was going on and what could be done about it. If they were open to the workers' opinions, this position created a sense of trust in the workers, that was not achieved in the organization wide meeting where reactions to critique was explained from management's own points of view, and reactions were overall defensive or offensive instead of constructive. Besides, an open attitude helped indirectly to bridge the distance experienced between management and workers. Lastly, the awareness in many workers that problems were mutual ones, and managers as well as themselves 'wrestled' with them, gave rise to a shared problem vision, locus of responsibility for the problems is not sought and placed with management (see also Senge, 1999), but more understanding among workers for managers' position and henceforth a more constructive attitude developed.

***Lesson 6:** An open, active, stimulating attitude of managers stimulates sensemaking, commitment, initiative and an action oriented attitude in workers and breaks authority positions that undermine workers' own initiatives*

We asked people whether they wanted to contribute themselves to improve the situation in the organization. Some people from different teams indicated that they did want to contribute to solving the problems, if management would give them enough space to do so. They stressed that it was important to them that management expressed openness and clarity about the space that they were prepared to give for people's own initiatives and about the efforts that were going to be taken in order to solve the problems. Overall, many of the workers said that they would like to offer their expertise, to help think of solutions for problems and were willing to solve problems themselves, as well. All workers stressed the importance of involving them in the process, because the process concerned their work, its contents, cooperation and the way in which they performed their jobs: the change process had large consequences for their everyday work. They also stressed that they had broad expertise, concerning their own discipline, their clients, they knew what means and people they needed to do their jobs and knew the processes in the organization. As such, they did claim to be entitled to be part of the process, to be heard and to be given the opportunity to (actively) participate and to be able to make an important contribution to the process.

Lesson 7: After feedback had ended, results were used for external steering and control. Change managers started working on interventions to which people would be subjected, on the basis of their own interpretation of dialogue outcomes.

This led to an increase of central guidance and control, which was in contradiction with one of the goals of the change process, stimulating initiative and participation of workers in the organization

Stimulating people to work on problems in small groups stimulated also the less dominant workers and new people to give their opinions and in one team helped especially to make a shift from the position of distant and critical observer to active participants. In some of the larger area teams, where people do not work together on a daily basis in a subsystem and hence did not share mental models, people were less energetic to actively contribute and preferred to let management take the initiative. Management then started to work on a plan of action to work on improvement on the basis of the outcomes of the dialogue sessions and their own evaluation of the change process.

Conclusions and summary

Clarity of roles and expectations

In our experience, clarity about the method of using survey results for feedback to and dialogue with all concerned, an emphasis on joint learning by interpreting and acting and agreement between researchers and people in the organization are important.

For this methodology to be effective, it helps to openly and clearly discuss the elements of survey feedback and sensemaking during the first (intake) meeting between the researcher and representatives of the organization. When top management understand the underlying assumptions of the method, accept them and are open to sharing the results and reserved in their own interpretation of specific results, they are more able to stimulate processes that lead to significant interactions and give space to all involved for interpretation and sensemaking.

Good communication about distribution of questionnaires, information about the research project to all involved in advance, and distribution, explanation and completion of questionnaires during working hours, preferably in a large scale meeting or during work meetings, have helped us start this project. More clarity of the goals and follow-up of the sensemaking sessions and therefore giving insight into the integrity of the process and possibilities for different parties involved for influencing the outcomes might have helped us make the first large scale sensemaking meeting more effective.

Paradox of sensemaking using a research model

Furthermore, the process of performing survey research and then providing feedback on the results takes time. Experiences, thoughts and interpretations may therefore not be fresh and undetermined anymore, and we may therefore be confronted with the problem of hindsight bias (Weick, 1995). The questionnaire we used is a method that can be used to bring about dialogue processes about organizational change, but it is also a general model, gathered from ideas from 'experts' on the subject of organizational change. It can be seen as coming from a positional view on organizing, an as such is 'imposed' on the organization and therefore might not leave much space for organization members' own sensemaking processes (Wierdsma, 19..). Provided that it is used to stimulate dialogue and joint sensemaking, using questionnaires is however good way to gain insight into multiple differing opinions, especially in large organizations where it is difficult to discuss change processes with all organization members involved in a change process. The general model, based on content knowledge, then becomes a process. Content knowledge is used to facilitate the process and the roles of experts and interested parties are separated and interwoven: process managers are not experts on the contents of people's work and by involving people in the process ensures that there is enough content knowledge in the process (De Bruyn et. al, 1998). Providing feedback by giving an overall view of results to everyone in the organization, proved to be effective to stay focused on the larger issues and stimulated an effective process instead of focusing on detailed research results or content expert knowledge.

Using questionnaires provides a possibility for insight into perspectives on the effects of dialogues, interventions and/or changes when the questionnaires are distributed for a second time, in a later stage of the process.

Connecting to daily practice and interaction

Concrete and imaginable information is recalled, comprehended and processed more easy than abstract information. This also holds for more implicit information (Kess, 1992). Feedback of abstract research results may therefore hinder comprehension and sensemaking. When questionnaires are adapted to the situation and the vocabulary used in the organization and the nature of the change process, they connect closer to organization members' mental models of the organization and the important issues and change process, and hence makes it easier for them to comprehend and use research results in interaction. Trying to connect to people's everyday experiences by adapting language used in questionnaires as well as in feedback sessions, helps people comprehend the results and engage in easier constructive sensemaking and action. Because of that and to ensure follow up afterwards, involving managers directly in the distribution of questionnaires, letting them take part in the dialogue following the feedback of results, participating themselves and stimulating people to give their opinion and share their ideas eases the process, because managers often play an important role in carrying out change processes and coaching workers along the way. After the sessions, the outcomes of and

experiences with the dialogues of all work groups can be put in writing and to be shared and discussed again later during work meetings for further dialogue and sensemaking. When questionnaires are adapted to the culture and therefore the vocabulary used in the organization and the nature of the change process, they connect closer to organization members' mental models of the organization and the important issues and change process, and hence makes it easier for them to comprehend and use research results in interaction. We learned that, when results are discussed in small groups, people are more able to transcend the stage of criticizing and go on to the stage of constructive thinking and acting, as also stated by Hoebeke (1994). Also, people are more inclined to talk about their personal experiences and problems in their own team, the team that they worked with in their own work environment, provided that they get along well. They were also able to discuss their problems on a deeper level than when dialogues were held in larger groups of people that did not know each other well. Besides that, we have learned that it is important that the manager or coach of a team takes part in the dialogue process, because it shows his commitment to workers and helps stimulate initiatives from workers to solve problems. A manager can contribute to the sensemaking process, and because of that contribute to eliminating a distance between workers and management and stimulating a joint creation of a vision of what a future organization might look like. Also, when workers work together and share work experiences, this makes it easier to discuss problems on a deeper level. In many, especially professional organizations where people work individually on their own, separate tasks, joint sensemaking may be difficult to achieve.

Understanding change from multiple perspectives

Collecting multiple perspectives on a change process, and giving meaning to these different perspectives of all involved, contributes to a successful course of the change process and reinforces learning in and the change capacity of an organization. All parties whose support is important for the change process, are involved in the sensemaking process which can not only help problems concerning blockades or resistance, but most importantly, multiple perspectives enrich the sensemaking process (De Bruyn, Ten Heuvelhof and In 't Veld, 1998). Providing more specific feedback of research results for different departments makes it easier to correspond more closely to the mental models of different subsystems and to joint sensemaking. Also, only when all perspectives in a work system are involved in the sensemaking process, there is enough variety in opinions for creative thinking and constructive sensemaking. When there are conflicts in teams, too little variety may cause people keeping each other imprisoned in their perspectives of others.

Differences as a source of renewal

People from different hierarchical layers or subsystems in an organization may have differing opinions about the management and course of change processes. Taking such differences of opinion into consideration and making them visible in research results help making it possible to discuss these

differences. People develop theories of action which guide their behavior, to make it more manageable, more consistent, and thereby to maintain their sense of being personally responsible (Argyris, 1976). Theories of action build on the stimulus-respond paradigm. People in organizations build knowledge as they respond to the situations they encounter. Individual stimuli are aggregated into compound meaningful stimuli that map the territory for action. This aggregation is driven by rules that interpret stimuli in meaningful ways. These interpretations activate other rules by which responses are assembled. To identify stimuli properly and to select adequate responses, people map their environments and infer what causal relationships operate in their environments. These maps constitute theories of action which they elaborate and refine as new situations are encountered (Weick, 1995). The action applies and tests the theory but also shapes the behavioral world the theory is about, which makes it a self-fulfilling prophecy to some extent (Argyris, 1976). Actors' interpretations and perspectives of the situation and of each other therefore might lead them to certain images of reality and expectations about each others' behavior which cause them to contain each other in their roles. We therefore presented survey results to top and middle managers jointly, because of the tensions between these two groups. When survey results are used to make these different images and expectations visible and are used to understand them make sense of them, survey results can help to create more understanding between groups in an organization about each other's position and points of view, and stimulate learning on the level of suppositions.

Dialogue

Dialogue has different prerequisites to be successful. Besides before mentioned aspects like participation of all parties involved, transparence and openness, and using content knowledge for facilitating process, aspects like the way in which research results are presented and discussed, matters. When people can react to survey results during the presentation, the researcher's role shifts from that of an action researcher accompanying or coaching a dialogue session to presenting and guiding discussion on details of research results. There is too much attention for and discussion about smaller details in the research results. When people first were presented an overall image of the situation in the organization and then discussed that image, it was easier to focus on the key issues, the aspects that are especially important to them, the causes underlying their own problems and possible solutions. Furthermore, we have learned that, letting people talk about survey results in small groups and then presenting them to the larger group, is a better way of letting everyone participate than when people react to the results during the presentation. Survey research however may also have some less positive consequences, as most research methods do. Our experiences learn us, for instance, that there are several conditions to be fulfilled for survey feedback to be effective, which are however hard to meet in some organizations. Trust in the organization is for instance important for people to be able to talk openly about the problems they experience. Especially the condition of openness might not be achieved in all organizations. In some change processes, where the goals of changes are not open for

discussion and decisions cannot be reversed, as may be the case in a change of structure in the organization which (in part) causes the problems experienced, this method may not yield results.

Anxiety and anger

In this particular case study we have learned that it is difficult to start an interactive sensemaking and learning process when people are angry about the situation in the organization. In line with this, we have learned that, in teams that experience internal conflicts, constructive thinking and learning were harder to accomplish than in those teams that got along well and were therefore more able to look at the situation from a contemplative point of view. It was easier for people to talk about their problems, be open about their vision and constructive about solutions in the small group of people they directly worked with, provided that there were no large interpersonal conflicts in the team. We continued discussing the survey results in such a conflictuous situation where it would probably have been better to stop the process and first pay attention to the situation. This is however hard in tense and conflictuous situations. Paying attention to the situation and making sense of it, by letting people explain the suppositions underlying their reactions, and then trying to turn the situation into a more constructive one might be a solution, but how can this be accomplished without aggravating the situation? Weick and Westly point out the role that humor can play in creating a context for learning in tense and anxiety-prone conditions (19..). Laughing can combine relief and pleasure in difficult situations, and provides an institutionalized means for the expression of social tensions (Daniels & Daniels, 1964). 'Jokes provide moments in a process in which alternative realities, 'forgotten' truths, and anomalous information can, in a non-disruptive way, be introduced into the flow of events' (Weick & Westley, 19..).

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