

Process redesign and organisational change – towards the use of an integrated change method

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Abstract

The problem of finding appropriate ways to organise and design organisational change processes, and especially their initial phases, is the main question behind this paper. It is argued that a methodological approach is advantageous by guiding the process towards efficiency and effectiveness. The theoretical base for such a method is described concerning change and method theory. Two methods deriving from perspectives of process redesign, quality, ergonomics and organisational theory were integrated. The resulting method was verified in three case studies, concerning change process and method use. The results show that integration of perspectives, situational adaptability, an unbiased initial problem attitude, and a change initiating co-operation between change agent and organisation could be achieved. The developed theory and work structures are advantageous in guiding and legitimising the change process. The work procedures ensure participation and enable both top-down and bottom-up generated improvements to be emphasised.

Key words

organisational change, integrated method, process modelling, improvements

1 INTRODUCTION

The problem of finding appropriate ways to organise and design organisational change processes and their initial phases within an integrated perspective of process redesign, quality, ergonomics and organisational theory, is the main question behind this paper. The paper describes how an integrated change method was designed, and the verification of it in a change project in order both to create organisational change but also to provide a platform for further change in three SMEs. Improvements in production planning and information flow were especially focused. The theoretical possibilities in the applied approach are also discussed towards a context of small and medium sized enterprises.

2 THEORETICAL FRAMEWORK

2.1 Perspectives on change

Many authors have addressed the problem of organisational change. Lewin (1951)

wrote about changing group performance in three steps where a successful change should include unfreezing the present level, moving to a new level and freezing group life at the new level. The unfreezing of the present level need to break open the shell of complacency and self-righteousness of the existing ways of work. In each level, there are force fields with forces acting towards change and forces acting against change. Argyris et al (1985) argued that human beings follow design programs of action or theories of action. There are two kinds of theories of action, espoused theories, which people claim they follow, and theory-in-use, which can be inferred from action. These theories can be modelled, and in the discrepancy between the two, the change agent can identify casual relationships and thus create possibilities for change. Engeström (1993) pointed out three basic principles as a basis for an activity-theoretical viewpoint. A collective activity system can be taken as the unit of analysis, the activity system and its components can be understood historically and inner contradictions of the activity system can be analysed as the source of disruption, innovation, change, and development of that system, including its individual participants. Carballada and Daniellou (1997) pointed out the contradictions between the daily activities a member of the organisation performs, and the formal structure in which he works. The structure referred to here includes organisational hierarchy, procedures, technical facilities etc. Management's responsibility is to establish both top-down and bottom-up information flows as inputs to adjustments of the structure, and to handle the contradictions. The ergonomic change agents' contribution can be based on understanding existing contradictions and building appropriate space for structure adjustments.

According to the quality movement, participation, leadership support and customer satisfaction, are three major requirements for successful change (Bergman and Klefsjö 1994). The concept of continuous improvement enables bringing up concrete improvements early in the change process, a factor that is important as a symbol of the program success and also a lever for further improvements (Karlton 1996). Also, the ergonomics field has emphasised participation as a crucial condition for not only the support and impact of the changes themselves, but also for the quality of the solutions.

Although coming from different research traditions, these theories include and emphasise similar conceptions concerning change. The activities in the organisation serve as a basis for understanding and analysis. The context and structure, in which the activities are performed, are included in the analysis and the attempts to understand the conditions under which the organisation is working. Contradictions between existing ways of working and local theory are used as triggers for change, and experience and local history are used as important inputs for examining both the local theory and the contradictions. Participation, communication and early improvements are supposed to support change.

2.2 Perspectives on change methods

Organisational change can be supported in different ways. One way to support is through the use of explicit change methods (Avison and Fitzgerald, 1995; Goldkuhl et al, 1997). The concept of methods used here is limited to methods that guide the process of change without giving preference to any achievable solution.

Organisational change can be considered as a process of inquiry and design, which involves asking questions and answering such questions. A method can give support to this questioning and answering in different ways. Different *types of questions* to put can be suggested within the method. "Which problems are perceived within this business?" and "What are the causes of this particular problem?" are two examples of important questions to raise (cf Goldkuhl and Röstlinger, 1993). Many change methods do not

only contain such typical questions to adapt and ask in particular change situations. They can also consist of special *description techniques* for documenting data (answers or analysis of answers). This could e.g. be Problem Diagrams describing causal (hypothetical) relationships between problems (Goldkuhl and Röstlinger, 1993). The typical questions and the corresponding description techniques form together *tools* used as parts of the method (cf e.g. quality tools used in many TQM based methods).

The questioning and answering can be performed in different ways and by different persons. There might be guidelines for this, i.e. principles for *collection and co-operation procedures*. Who puts the questions and who answers? In what ways are the answers collected? One method can recommend different such forms, as e.g. seminars, interviews and questionnaires.

Different questions (work procedures) might be arranged into work structures (*frameworks*) in order to guide the change process in a proper way. E.g. one group of questions might be grouped into "problem analysis" and should be performed before another work element "design of change measures". This structuring will be made according to the rationality behind the change method. All change methods, either they have explicit work steps and structured tools, or they only have implicitly described work procedures and no formal tools, rely on some *perspective* or theory. Such a perspective underpinning a method emphasises quality issues during the change process.

3 INTEGRATED CHANGE METHOD

3.1 Principles of integrated method

The purpose of the here-described method is to provide knowledge about the functioning of the studied organisation, about the local structure, problems, contradictions, etc. and to do so in a multilateral perspective. An additional purpose is to produce a common platform for further change in the studied organisation. The change method used was integrated from two different change concepts. One deriving from organisational change theory cited above, focusing individuals, productivity, quality and ergonomics (Protek), and the other deriving from process modelling with relations to information systems modelling (CA/SIMM). The latter includes a process perspective on the organisations studied and it is related to business action theory (Lind and Goldkuhl, 1997). It makes it possible to study the interactions between the organisation and its customers and the interaction between information flow and material flow.

The integrated method includes a number of objectives concerning the method itself.

A part of the change method is data collection in the intervened organisation. One requirement for data collection is validity, and a triangulation strategy is used with data, methodological, investigator and theory triangulation (Denzin, 1989).

Another important objective concerning the integrated method is its situational adaptability. Every intervention has its own particular characteristics and a method must be able to cope with different situations in an intervention. This can be handled through designing the method as a toolbox, where the different tools exist within a common framework. Situational adaptability means also to cope with the situation that the knowledge of what the intervention in practice will result in, is not known at the beginning of the intervention. The aim of the first part of the intervention is to reveal the existing opinions and reflections in the existing organisation, and usually to compare these with the conceptions and visions of the executive manager since his/her insights usually starts the intervention. Thus, the objective for the interventions referred here was not e.g. improving production planning, but instead testing if production planning

was the problem it seemed to be. If so, the intervention should provide under which circumstances it was perceived to be a problem, and how it related to other aspects of the organisation. The intervention should also provide guidance towards what measures could be taken to solve or further analyse the problem. The initially supposed problem might turn out to be of minor importance, or an effect of something else. Hence, this second aspect of the situational adaptability is to provide a multi-perspective view, always including a rich picture of perceived problems and their context.

An external agent working with organisational development will intervene in the organisation as soon as he acts or decide to act in collaboration with the organisation (Schein, 1988). Accepting this statement means that a method of intervention must support the intervention in a direction, which initially is unknown. Each tool has therefore been carefully examined and applied concerning the objectives with and built-in perspective of that specific tool, the underlying values, and the principles for collection and co-operation procedures like different aspects of participation. Important criteria in development and application of the tools were learning possibilities concerning relations between detail and whole system, own and others work, and interest and motivation for the individual compared to enterprise. This necessitates a shift between detail and overview, and between individual and enterprise aspects.

3.2 Application of the method

The integrated method was used and tested in three different companies. In each enterprise, a project group was formed with representatives from all personnel groups in the enterprise (management, white-collar workers, and blue-collar workers). The projects were arranged as a set of meetings, interviews, analysis work and presentations. The data collection was composed of questionnaire, interviews, group work and process modelling seminar. The data collection was guided by the types of questions towards different processes, ways of working, experienced difficulties in work, attitudes, perceived status of the enterprise in different aspects, and economical results. The collected data was analysed both qualitatively and quantitatively. Predetermined description techniques like descriptive statistics, hypothetical relation diagrams, process diagrams and categorisations were used. After analysis, the data and the analysis were fed back to the organisation from which it was collected in the form of a written report. This was discussed and the project group revised it until all parties accepted it as a legitimate description, and it served later as a platform for further development work. The revision could concern lacking perspectives, direct misinterpretations etc., but descriptions of problems, contradictions, change agents hypothetical relations and other data that could form the basis for further change were not revised. Both participation and “unfreezing” were supported by a detailed and open feedback to all employees of results and documented analysis. Problems in the existing ways of working and conflicting perspectives were due to this not able to cover but had to be dealt with.

The method implied an external change agent, who served as a method expert, and as a data collector since some of the data was viewed as personal property, e.g. questionnaire and interview results. The agents asking the questions and following designed frameworks reinforced change “unfreezing”. The external agent also served as an analyst, bringing an external perspective on the possible relations between problems, goals, strengths and suggested areas of improvements and change.

An evaluation of the reached changes was done with interviews, questionnaire, seminar work groups, and process examination, from one and up to three years after the first intervention was started. The same tools were used for the evaluation as was used during the first intervention.

3.3 Results

The results of the project suggest that the method was powerful in some aspects. The amount, quality, structure and combination of qualitative and quantitative analysed data made the results in each enterprise strong change drivers. Problems involving aspects of leadership and the way the managers worked in two of the studied enterprises were more effectively handled through clear indications of these problem areas. Main points in these involved the information flow distribution and the way experience information (bottom-up) was suppressed in the enterprises. The managers' view of the identified problems differed significantly from the main opinion among the employees. The methodological approach simplified and played down the potential conflict built-in, dealing with these matters.

The process modelling clarified the participating enterprises' processes, the structure of their business processes, how they related and possible ways of expansion. All three studied enterprises revised how they should relate the internal organisation to the vision of the companies' future business. The revision was made without further investigation in one enterprise, and the other two made a deeper analysis of how to align their organisation to the identified demands.

The analyses raised suggestions for a couple of immediate improvements, which to a large extent were implemented by the enterprises. However, the analyses also showed that in spite of similar initial problem descriptions, the needs for completely different approaches in solving the underlying problem causes were obvious and could be handled within the situational adaptability of the method.

Due to the participative approach, ergonomic improvements were found at system level. The experiences of the employees had been considered in the change projects to a much higher degree than before the use of the methodological approach. The projects were continued into further changes and improvements of ways of working in all the enterprises, but the chosen organisational solution for this further development differed.

4 IMPORTANT FEATURES OF THE CHANGE METHOD

The method involves an integration of perspectives, which gave several benefits. The process modelling simplified the image of enterprise operations, and added an overview perspective of existing processes. The knowledge and skills in the enterprise were taken care of, which added a detailed perspective based on individuals' experiences. These were treated as collective knowledge from the different levels of the organisation. The analysis of data added a perspective deriving from the interplay between parts and whole, i.e. how the details and processes were aligned.

Separating the change process in an initiating diagnosis phase and a following phase where some problems will be solved in immediate action, and some deserving continued diagnosis and analysis, made it possible to adapt the change process to the change activities needed, figure 1. It added motivation and legitimacy to the change process, since there were tangible improvements deriving continuously from it. It also made it possible to maintain a high efficiency in the change process.

Application of the method supports an unbiased attitude in the change process. The method is directed at finding the internal existing opinions on the functioning of the organisation, and the method is exploring the field of possible improvements and problem relations. Initial problem descriptions cannot guide the change process towards a solution without a thorough examination of the problem. The data is collected in the organisation, but the change agents make the interpretation, documentation and the possible hypothetical relations. This procedure adds a theoretical interpretation, based in research, to the local theory of the enterprise in which the change project takes place.

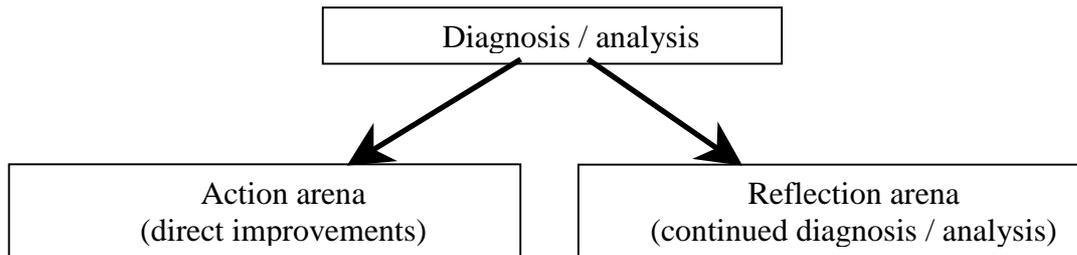


Figure 1 Possible results of the initiating diagnosis

The combination of documented data and local theory, interpreted, commented and informed by external change agents, makes the integrated method a powerful change initiator and driver. The contradictions between perspectives, structure and activities, experiences and practice, and espoused theory and theory-in-use will be obvious.

Action and experience grounded improvements together with reflection grounded purpose-based redesign, form the methodological basis for creating changes with the integrated method. The use of this approach proved to be both efficient and effective to produce desired insights and changes in the participating enterprises, within problem areas SMEs usually find difficult to handle.

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