

# **Safety management at small workplaces - on dissemination and use of information<sup>1</sup>**

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## **ABSTRACT**

The dissemination and use of support material to improve the working conditions have been studied. The focus is on small workplaces, both in the private and public sector. A general model for describing the application of support material is discussed. Some quantitative data has been obtained, in particular related to the ordinance on "Internal control".

The study has pointed at problems but also at possible improvements, especially regarding the authority role. One suggestion is to more systematically collect data on the status at small workplaces. Another proposal is that the authority should initiate evaluation of the quality and practical usability of supporting informational material.

## **Keywords**

Small workplace, support material, Internal control, authority

## **INTRODUCTION**

### **Small workplaces**

The importance of addressing safety and other work conditions at small workplaces is more and more recognised. Some major reasons are that they constitute the majority of the workplaces, and that such a large number of people work there. For example in Sweden, workplaces with less 50 employees make 96% of all workplaces, and account for 47% of the total employment. It is also essential to consider the situation at small workplaces, as they may have problems due to limited resources to deal with safety and health issues.

It was regarded as more suitable to consider small independent workplaces instead of small private companies as a basis for discussions. It means that we are concerned with both the private and public sector. One reason is that the problems are similar, and also that it appears as the public sector easily is forgotten.

### **Supporting material at small workplaces**

The starting point was an interest in written material aiming to give knowledge to workplaces on how they should deal with work environment issues, especially on safety. The term "support material" is used here. It has a general meaning and includes handbooks, checklists, and other information material concerning occupational safety and health. In a broader context, it could also be extended to include laws, regulations, and standards.

The large number of small workplaces, and their limited capacity makes the support with information essential. The dissemination and use of knowledge to improve the working conditions at small workplaces is central for this study.

### **Some problems**

From the perspective of the small company, there is a complicated legislation, many competing demands etc. They need to find solutions in a quick and reliable way. Finding good support material could help them a lot in working with the most relevant issues.

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From the authority point of view, the large number of small companies and workplaces makes the communication of safety and health issues rather complicated.

Much support material is produced and the needs are large, but there are indications that most existing material are used only to a small extent. For researchers it is difficult to find data on the dissemination and the coverage of workplaces, as quite a lot of support material is distributed through commercial channels.

### This study

The overall aim with this study is to better understand how the handling and management of the work environment could be improved with help of support material. From the beginning, much interest was given to the characteristics of support material. That it should be easy to understand, be short, etc. But gradually, the role of different actors and communication issues has become more central.

This paper presents a part of a general study on "support material" [2]. The paper introduces a general model concerning workplaces and the use of support material. An investigation connected with internal control is used as an example.

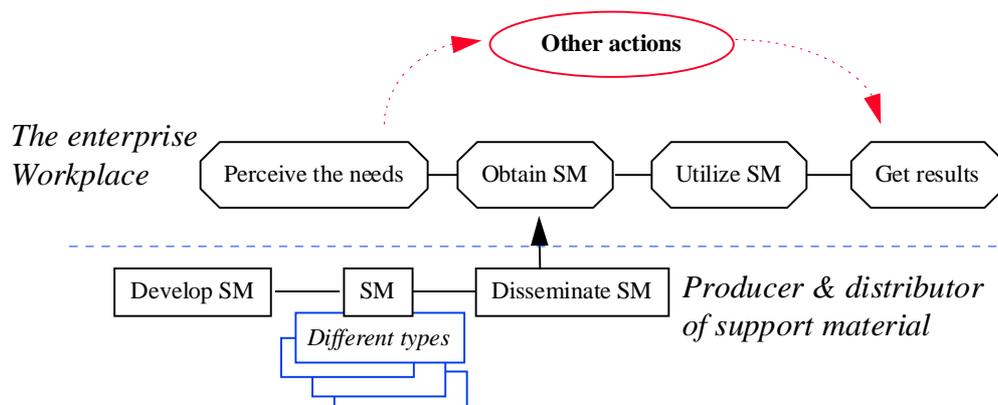
## MODELLING THE USE OF SUPPORT MATERIAL

One starting point for the investigation was an elementary model given in Figure 1, indicating how support material (SM) is distributed and applied. At the workplace, it is assumed to exist a set of needs like solving safety problems, fulfilment of official requirements etc. If these needs are noticed and addressed, suitable SM could be identified and ordered. They are applied in some way, and results are obtained which may fulfil the original needs.

The lower part of the model illustrates the producers of SM. Their intention is to develop material, which is essential, can be sold, and applied.

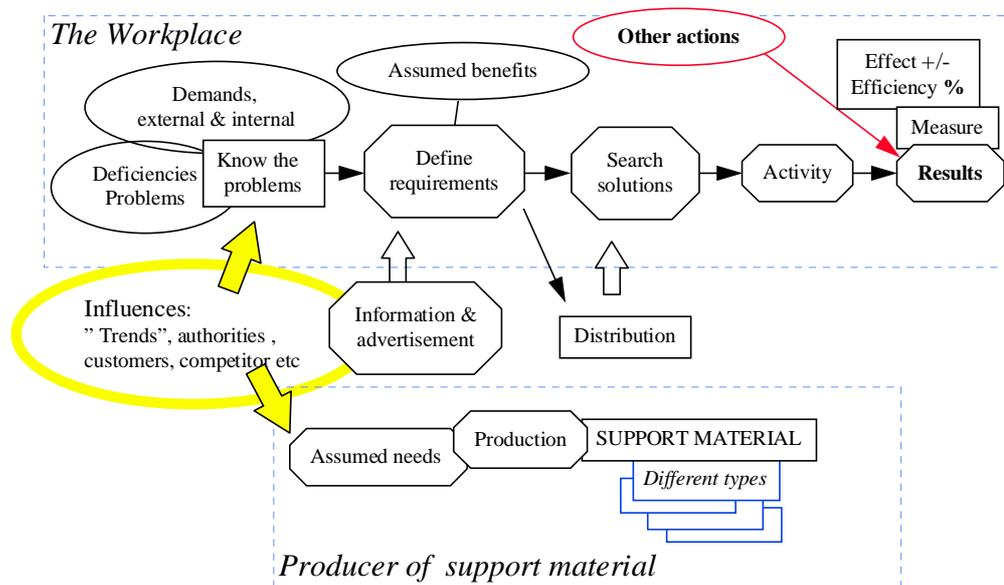
The model shows a number of steps that should be taken in order to get real results at the workplace. What is the probability for success including all the steps in the chain? There are also other ways that work environment could be improved - without using SM, which is indicated with "other actions" in the figure.

Figure 1. Flowchart of using support material (SM) for work environment management



A more detailed modelling of activities in relation to SM is given in Figure 2. The models have been used in discussions with distributors of support material, and with labour inspectors. One intention with the model was also to explore possibilities to quantify and evaluate the activities and potential problems associated with SM. So far, only a small number of quantitative data has been obtained.

Figure 2. Activities in using and producing support material (SM)



## EXAMPLE ON INTERNAL CONTROL AND AUTHORITY ROLE

### Background about internal control

The official regulation on internal control was introduced in 1993. A slightly revised version was issued a few years later [7]. In short, the employer should have a systematic health and safety management with planning, implementation and follow-up of results. The work shall be made in cooperation with the employees and their representatives. The regulation was inspired by a similar approach in Norway. Extensive studies have been made of the Norwegian experiences [e.g. 3].

In this study, the application of internal control was a suitable illustration. The major reason was that results were available from an intervention by the Labour Inspectorate. It was also a possibility to collect supplementary information from the participating inspectors.

### A Labour Inspectorate intervention

During 1996 the Swedish Labour Inspectorate made an intervention with information activities combined with inspections. It was directed to around 1000 small companies in the manufacturing industry. "Small" meant less than 50 employees, and of special interest were companies with less than 20. Before inspections, the companies had obtained information material about internal control, so they were supposed to be well prepared.

In 1998, a follow-up intervention was made [4]. The aim was to evaluate if the earlier visited companies had improved or not in respect of "internal control". In short, the approach was:

- Around 400 companies were inspected; all had been visited also in the previous round.
- A letter was sent out two weeks in advance of the inspection.
- At the inspection, the inspector collected data in a given format.

One indicator was "internal control status", which has a four steps scale:

1. Work with internal control (IC) has not started
2. IC has started
3. IC is in function
4. IC works with visible results.

Table 1. Summary of labour inspector's assessment of "internal control status" of companies at two intervention studies (From [4])

Internal control status	Original sample 1996	Follow up study, same companies	
		1996	1998
1	70%	54%	12%
2	20%	37%	40%
3	9%	6%	40%
4	1%	2%	8%
Number of companies	About 1000	369	369

The results of the evaluation of IC status are summarised in Table 1. At the first occasion, only 10% had a working IC and still fewer (1%) could show results. Their original status is not known, but the information campaign before the inspection did obviously not influence too many of the visited companies.

In the follow-up study, there is a clear improvement, probably due to the intervention. Still however, there is only a limited number of companies that have got the score 4 which indicates visible results.

### Survey to labour inspectors

In the intervention study, there were no possibilities to include questions related to support material. However, there was an opportunity to ask the participating inspectors after the intervention. This was done as a questionnaire distributed to the inspectors. This approach gave only second hand estimates of the situation at the companies, but it had to be accepted.

The questionnaire was on two pages and contained 8 questions, of which three were open. Answers were obtained from ten persons. The inspectors were asked how many companies they visited at the intervention. A simple calculation showed that the answers covered 219 companies, meaning that 60% of the intervention was included. Some of the answers are shown in Table 2. The answers were weighed to give an estimate of the percentage of companies involved in the issue of the questions.

Table 2. Labour inspector's answers on support material etc. at small companies (percentage of companies concerned)

Subject	Companies
Number of companies with less than 10 employees	50%
Companies with access to Internet	12%
Companies applying general checklists for work environment	23%
<b>Questions from companies to inspectors:</b>	
- How do we find information, e.g. support material and training?	25%
- What is IC? Is it not enough that we solve our problems? etc	24%
- How much documentation is needed?	9%
- How do we start with IC? What shall we do?	8%
- What implies risk identification?	4%

In the questionnaire, the inspectors were asked to judge the importance of different sources of information. A scale was used, ranging from 1 (not important at all) to 5 (extremely important). This part of the questionnaire was designed to be in agreement with an previous survey addressing small chemical plants in five European countries [2 & 6]. Table 3 shows the results from these questions to the inspectors, and also the mean values given by the European companies.

Table 3. The importance of different sources of information. A comparison of estimates by Swedish inspectors (n=10) and small European chemical companies (n=132)

Source of information	Swedish inspectors		Eur. companies
	Medium score	Answers	Medium score
Courses, seminars etc	2,1	8	3,3
Information from			
- Industry group etc	2,9	10	3,5
- Parent company	3,0	7	2,7
- Consultants	1,7	9	2,6
- Industrial health service*	2,6	8	-
Contacts with authorities	2,2	8	4,0
Publications, journals, handbooks etc	2,6	9	3,9
TV, news papers	2,4	9	2,3
Internet*	1,9	7	-

\* only asked to the inspectors

The difference between inspectors and the companies is evident. In general, the inspectors gave a lower medium score than the companies (2,14, and 2,71 respectively). The inspectors regarded parent company and industry group as most important. The companies regarded contacts with authorities and publications as most useful. In both groups, the importance of consultants was regarded as low.

## DISCUSSION

### Limitations of data

The findings obtained in the survey related to internal control must be interpreted with caution. The results would probably not be the same, if both the inspections and companies had been related to a more general situation. The number of inspectors asked is low.

Much of the quantitative information of interest for the general model is not easy available. There are also time constraints in the project. For example, the distribution to workplaces of different kind of support material could be interesting to study further. Although only limited data is available at present, the figures obtained can be seen as indications of the size of potential problems.

### Quantitative aspects related to the model

#### General

The general appearance of the model has been discussed with people at the Labour Inspectorate, and its general idea was fully accepted as description of reality. However, this process-oriented approach was quite different from the inspectorate's normal way of working. Hence, there were very little data available, and these were mainly related to mass communication of leaflets to companies.

#### Examples of figures to the model

Considering the model, different numerical values could be looked for. Some examples found in connection with this study are given below. Most data come from Sweden.

- Internal control with visible results (Status 4) is around 1% for Swedish small companies in general.
- No improving effect of sending out material to companies could be noted in the intervention study described above. (Table 1 shows that also here 1% had Status 4.)
- Similar results were obtained in an intervention study in UK [5]. No measurable improvements were noted after a "mailshot" from the inspectorate.
- At a second visit from a labour inspector, 6% of the companies raised their IC-status to 4 (Table 1). This indicates that interventions by inspectors give some effect, although it is minor.

- e) Sweden has around 400 000 workplaces, and the Labour Inspectorate makes 40 000 visits a year. This means that around 10% of the workplaces are visited a year.
- f) There are a number of investigations done on mass mailing to companies. This has not studied this in detail here, but there are indications that about 1% of the companies addressed give some kind of reaction.
- g) Handbooks, checklists etc to support work environment are usually sold in relatively small numbers; they only reach a minor fraction of all the workplaces

Some of the figures above are related to internal control, which is a rather special case. In one example (c), the issues were concrete such electrical safety and manual lifting of heavy objects [5]. In the same study, more positive results were obtained from seminars with companies, which caused around 30% of them to improve. Although it might be a positive selection of companies coming to the seminar, it is a clear positive result.

### **Some considerations**

The figures given above are in a way discouraging. It has not been possible to study and explain the results to any depth. A number of tentative explanations or issues could be interesting to go on further with. The figures indicate that there may exist essential obstacles how to improve the working conditions by the use of support material etc., at least in respect to internal control.

Some explanations could be look for in relation to questions asked to inspectors (Table 2). The first issue is how to find material, where 25% of the companies had inquiries. This indicates that some kind of support for easy finding relevant information is advantageous. The second issue is internal control with questions from 24% of the companies, some of which are sceptical. One interpretation is that it could be different perceptions of benefits with IC by companies and by the authority.

Although the data related to the model is not easy available, it could still be valuable to keep the proposed model, especially in discussions about strategic considerations. In such case, the item "Other actions" might need a further study and expansion.

In the discussions with the Labour Inspectorate, there was found only limited amounts of numerical data related to issues in the model. These discussions also gave the impression, that evaluation and collection of data do not appear to be put into comprehensive strategic perspective. A changed strategy towards evaluation and data collection by concerned authorities might be of value. Similar considerations have been addressed in a study from the UK [5].

### **About support material**

At the start of this project, one belief was that basic prerequisite to get better safety management was good and simple handbooks. Of course, the quality of support material could play an important role. However, there is a need to think more in terms of strategies for the responsible authorities and other organisations involved in work environment issues. An overall approach is needed, especially for small workplaces. Some considerations are given here, which are extracted from the larger report [2].

There is a large offer of handbooks etc., for example on the Swedish market there are 1000 around titles. For the small workplace it is difficult to find relevant information, to know the quality of it, and to apply it on their own situation.

One approach is to learn from the consumer market, where there are fairly neutral evaluations of cars, household machines etc. It could be applied also here and might help the workplaces with

- descriptions of criteria for good support material,
- evaluations of material; "best buy"-recommendations,
- support for finding and selection of support material.

Another aspect, which has been raised several times, concerns "brokers" of knowledge. All companies do not have to learn everything. The broker's role could be important, but there is a general negative attitude towards consults both from companies and inspectors (Table 3).

### **About the role of the Labour Inspectorate**

In Sweden, there has over the years been a discussion, if inspectors should have a critical, controlling attitude, or be supportive, giving good advice when it is needed.

A proposal from this study is that the inspections more systematically could contribute to a better understanding of the actual situation at workplaces. *Where are the weak points in information, priorities etc?* The application of support material is interesting. *How is it used, how could it be improved etc.?* It could be very essential with the information and evaluation from the Inspectorate.

One argument for this "third role" is that less than 10% of the workplaces get in direct contact with the Inspectorate per year. This makes the importance of other means of communication and influences essential. A further argument is that the development of more systematic approaches to evaluation is an important step in helping to learn from previous experiences [5].

### **CONCLUSIONS**

The model, which was developed to demonstrate to role of support material, worked well as a basis for discussions. The model could be developed to include quantitative aspects, although so far it has been difficult to obtain suitable data. In order to improve that, one proposal is that the inspections more systematically could collect information, in order to give a better understanding of the actual situation at workplaces.

The findings in the study gave some ideas that could be of benefit for the application of support material. One approach is to learn from the consumer market, where there are fairly neutral evaluations of cars, household machines etc. It could be applied also here, and it might help the workplaces to find and select support material, which is in accordance with their needs.

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