



# **The Inspektoren Residential Area**

Work Package 4.1

Kalmarhem Ltd

## **Studies of behaviour during the process of refurbishment of the flats in Inspektoren**

– Report –



Kalmar, Sweden 2002

Leg Psychologist Bernt Å Petersson, PsykologHuset Petersson AB



## CONTENTS

---

1.	Background .....	3
2.	The 1997 Study of energy and environmental issues.....	4
	2.1 Main results .....	4
	2.1.1 Demography .....	4
	2.1.2 Energy .....	4
	2.1.3 Environment .....	5
	2.1.4 Environmental concern and age .....	5
	2.1.5 Environmental concern and values .....	5
	2.1.6 Environment and attitudes .....	6
3.	The 1997 study of perceived quality of flats .....	7
	3.1 Main results .....	7
	3.1.1 Concluding results .....	7
4.	The 2000 follow up study .....	8
	4.1 Main results .....	9
	4.1.1 Tenants participation .....	9
	4.1.2 The refurbishment .....	9
	4.1.3 Environment and energy .....	10
5.	The questionnaire as a tool for tenant participation .....	11

## 1. Background

In 1997 Kalmarhem AB started the work to refurbish its block, “Inspektoren” in Kalmar, Sweden. The block, which holds 159 flats in five houses, each three flats high, was originally built in the mid 50’s. Beside the common aspects of refurbishment, i.e. economic and technical, Kalmarhem wanted to highlight two other: Environmental concern and Tenants participation. As a consequence of this interest Kalmarhem wanted to monitor the tenants attitudes, interests and behaviour related to environmental issues, including energy-use and conservation. Kalmarhem also wanted to stimulate the tenant’s participation in the refurbishment process, and monitor their preferred way to influence Kalmarhem as landlord.



In 1997 two behavioural studies were conducted. Both of them took place before the refurbishment started. One was made by Docent P-O Hallin, Department of Economic and Cultural Geography, University of Lund, Sweden, and Leg Psychologist, Bernt Å Petersson, PsykologHuset Petersson AB, Kalmar. The aim of this study was to investigate the tenants actual behaviours related to energy and environmental issues, to investigate what values the tenants held concerning energy and environmental issues and to investigate the tenant’s attitudes related to environmental issues.

Leg Psychologist, Bernt Å Petersson, PsykologHuset Petersson AB made the other study. The aim of this study was to assess tenants perception and evaluation of different quality-aspects of flats, of flat-equipment and neighbourhood-equipment, in order to make the refurbishment as close to tenants preferences as possible.

In 2000 Leg Psychologist Bernt Å Petersson, PsykologHuset Petersson AB, conducted a follow up study. The main aim of the follow up study was to evaluate Kalmarhem as a conductor of refurbishment and as a landlord. The study focused on issues related to energy and environment, tenants participation and result of the refurbishment.



This report will give a short description of the three studies conducted, i.e. how they were made, number of participants and their main results.

## **2. The 1997 study of energy and environmental issues.**

The study was made through a questionnaire that was presented to the tenants on a meeting arranged by Kalmarhem, and it was distributed to the households by the leaders of the study. It contained two parts, of which the first one was directed to the household as a unit, and the second one was directed to each grown up member of the household individually. The questionnaires were manually collected by the leaders of the study. By numbering the envelopes that were used to return the questionnaires the leaders of the study could know which households that had not yet answered the questionnaire. Remainders could be sent to those. By the first remainder they got a stamped answering-envelope, and by the second remainder they even got a new questionnaire.

The questionnaire was distributed to 159 households, of these 139 returned the questionnaire to the leaders of the study, 13 of the returned questionnaires were not answered. This makes the real answering percentage 79%, which means that 126 households answered the questionnaire.

### **2.1 Main results**

#### **2.1.1 Demography**

The block, “Inspektoren”, holds a high number of elderly tenants (60 years or more) and a high number of young tenants (up to 29 years). The block is dominated by single grown up households, about 70% of those who answered the questionnaire are single, and single women are the main part of those. More than 34% of those who answered the questionnaire have lived in the block for 20 years or more, and over 23% have lived there for one year or less.

The conclusion from the demographic results was that the high percentage of younger people that had lived in the block for a short time could indicate, that the block is a transient living for many tenants that may move away when establishing family. On the other hand are the high percentage elderly people that have lived in the block for a long time a stabilizing factor. These two different groups of households probably have very different interests and needs.

#### **2.1.2 Energy**

In the questionnaire the households were asked about habits related to energy conservation. The result pointed to, that it was habits related to dishwashing and ventilation that held the greatest potential for energy saving.

### **2.1.3 Environment**

In the questionnaire the households were asked about habits related to environment preservation. The result showed that a high percentage of those who answered the questionnaire recycled glass, paper and aluminium cans. They also walk or take the bicycle to make short transports. A high percentage also have tried to change their habits of consumption through buying things that are marked by symbols indicating environmental preserving qualities.

### **2.1.4 Environmental concern and age**

Eight of the habits related to environmental concern were used to create a score for environmental concern. There was a positive significant (.01) correlation between energy saving habits and this score, but there were no significant correlation between age and environmental score.

### **2.1.5 Environmental concern and values**

The questionnaire contained 13 statements concerning values related to nature and environment. Every statement could be answered with one of five alternatives (From “totally agree” to “totally disagree”). The different statements were correlated to each other to see if there was any resemblance between them. Those statements showing positive significant correlations where grouped into four main groups of values: Materialistic, Esthetical, Ethic and Sensible.

Materialistic values comprise time for recycling, if recycling means much labour and if it creates a mess in your flat.

Esthetical values stresses that things shall look clean, that things good for the environment shall be as beautiful as comparable alternatives and that it is important to maintain respect from others.

Ethical values stresses that we have a common responsibility not to destroy nature and a common responsibility not to use up our resources.

Sensible values stresses that man can cope with most environmental problems using knowledge and technical solutions, but it must not lead to higher costs for the individual.

When correlating values and score for environmental concern it was found, that materialistic values and environmental concern were negatively correlated (.01), which means that people holding materialistic values where not active in adopting habits to preserve the environment. There was a positive correlation (.01) between sensible values and score for environmental concern, which means that the more a person stresses the importance of knowledge and technical solutions to environmental problems, the more apt to change habits in the direction of environmental concern he is.

That there was no correlation between ethical values and environmental score can be explained by the fact, that most of those who answered the questionnaire held ethical values (the mean point was 9,43 of maximum 10.0).

### 2.1.6 Environment and attitudes

Emotions are motivating. They have their roots in innate affect programs with typical automatic reactions. Even if these programmes are modified by learning and become emotions they affect the person in ways that he is not always totally aware of. Negative emotions as shame, disgust, anger and contempt gives rise to an impulse to the person to react aversive, while positive emotions as joy, interest and determination make the person active. The innate affect programmes, and also emotions, are relatively unspecific when it comes to what stimulates them, which means that whatever triggers the emotion becomes reinforced by it. That means, among other things, that if a negative emotion becomes associated to a certain field of interest, it tends to make the person aversive towards that field, but furthermore, the impulse of aversion can be directed towards the person that bring information as well. This can for example mean, that the person describing environmental damage risks that a part of the aversion directed towards environmental damage also becomes directed towards him. Against this background we found it interesting to investigate which words of emotion were associated to “Environmental damage” and which was associated to “Environmental movement”. The people that answered the questionnaire had to chose from a list of words those words they associated with the words “Environmental damage” and “Environmental movement”. They could choose as many words they liked.

The result was that the five most frequent associated words to the word “Environmental movement” were positive once: Interest, Determination, Enthusiasm, Joy and Warmth. The five most frequent associated words to the word, “Environmental damage”, were negative: Disgust, Fear, Anger, Inhibition and Shame.

The conclusion was, that to reinforce environmental preservation, it is better for Kalmarhem to talk about and help to find solutions to environmental problems than to talk about problems. Many of the inhabitants already hold strong negative emotions towards environmental damage, if those are triggered or reinforced without any solutions presented there may be a risk that environmental issues as such are coupled with distress witch in turn may lead to inhibition and aversion but maybe not to activities to preserve the environment.



### **3. The 1997 study of perceived quality of flats**

In order to make it easier for the tenants to choose between alternatives Kalmarhem made three demonstration flats that was shown to the tenants before the refurbishment started. Flat 1 was an flat with a thorough change towards materials and devices apt to preserve the environment and to conserve energy. Flat 2 was an flat that was changed in many ways, but not to the degree of flat 2. Flat 3 was an flat that was very little changed compared to existing standards, it was just made fresher.

The aim of the study that was made was to get a picture of how the tenants viewed the quality of the different flats, and also to get a picture of how attractive to live in those flats appeared to the tenants. The result was aimed to be a starting point for Kalmarhems discussion with the tenants, and also to be a decision device for Kalmarhem when choosing how to go on with the planning of the refurbishment. Kalmarhem wanted among other things to get a hint if it would be wise to try to make all flats alike or if they should offer different solutions to the tenants to choose among.

When showed the flats the tenants were asked to answer a questionnaire in which they were asked to assess the quality of the flat as a whole and also to assess the quality of some different objects within the flats. The quality was assessed on different dimensions, for example: Appearance, Endurance, Reliability, Design, Easy to handle, Home feeling. All dimensions did not apply to all objects. The households were also asked to estimate how important each quality dimension was to them. On the basis of the combination of assessment of quality and estimation of the importance of the dimensions each object got a quality score.

The tenants were also asked if they could think of living in the flats (without notice to costs). In another questionnaire they were asked which flat they would choose today (with notice to costs). They were also asked which objects they would like to remove from the chosen flat and which objects they would like to add (with the following effect on living costs). It was between 38 and 61 persons that answered the different questions in the quality questionnaire. 45 persons answered the other questionnaire.

#### **3.1 Main results**

The result of the study was reported to Kalmarhem in rather raw form to be used in the continuing process by Kalmarhem.

##### ***3.1.1 Concluding results***

The flats 1 and 2 had a high-perceived quality. This was not the case for flat 3. Flat 2 was the most popular to live in when no notice was taken to costs. The other two flats were equally popular.

None wanted to live in flat 1 when they took notice of the cost. Most wanted to live in flat 2. From the result of the questionnaire there was good reason to go on with at least two alternative flats to offer the tenants (alternative 2 and 3).

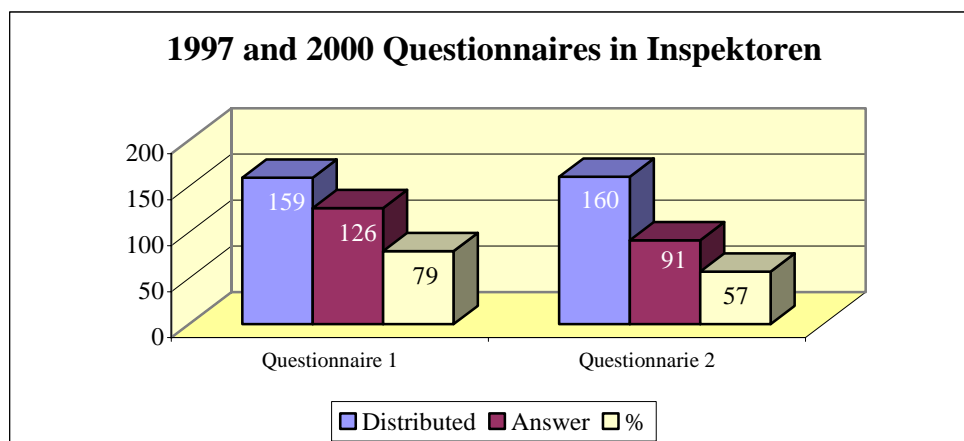
Many objects in flat 1 and 2 are viewed as having high quality. When it comes to new technique within the environment preservation area the tenants doubt the quality of endurance and easiness to handle.

There are many objects added to or removed from the primary choice of flat. The result gave confirmation to the view that it was wise to individualise the continuing refurbishment process, to go on with two main alternatives and from those main alternatives offer many possibilities of adds and removals.

#### 4. The 2000 follow up study

The follow up study was conducted during the fall 2000. During September Britta Petersson from PsykologHuset Petersson AB began to interview some of the tenants in the block, “Inspektoren”, to get a picture of which problems engaged the tenants, and ought to be highlighted by the coming questionnaire. The tenants had been chosen by Kalmarhem from the point of view that they should represent different types of households within the block. With the result from the interviews and after discussions with representatives from Kalmarhem and from the tenant’s organization a questionnaire was formed. This was distributed to the tenants during November. The questionnaires were distributed and collected by one of Kalmarhem’s employees in the block. To be able to distinguish answers from the different houses within the block, the questionnaires to different houses were printed on papers with different colours. Apart from that the questionnaires were anonymously answered, and it was returned to the employee in such a way that he had no possibility to find out in what way the tenants had answered.

The questionnaire was distributed to 160 tenants living in 7 houses. The rate of answers differed a lot between houses. In all 91 tenants answered the questionnaire, which means 57%. The rate of answers differed from 77% to 39% between houses.



## 4.1 Main results

### 4.1.1 *Tenants participation*

Tenants participation is an important concept for Kalmarhem. Tenants participation is a term that incorporates all the ways that a tenant can influence the landlord to make the living as well suited to the tenants wishes as possible. In the questionnaire the tenants had the opportunity to choose among alternative ways to influence Kalmarhem. They were asked to choose from a list all those methods for influence that they meant suited them. The result shows, that they prefer individual influence more than collective. They prefer to be a customer more than being a member. When it comes to collective ways of influencing Kalmarhem they prefer direct member influence before representative influence, which means that they prefer taking a collective decision on a meeting among tenants in the block before letting the tenants organisation speak for them.

It is also interesting to notice, that it is only 28% of those who answered the questionnaire that says that they know what kind of influence they can have on Kalmarhem, and it is 70% that says that they need to know more.

The result also show, that many of those that answered the questionnaire can be interested in buying different kinds of services and equipment from Kalmarhem, and also pay for this.



### 4.1.2 *The refurbishment*

The questionnaire contained a thorough investigation of the tenants experience of the refurbishment process and their evaluation of its results.

Kalmarhem as responsible for the refurbishment process is as a mean estimated to somewhat nearer “Rather good” than “Less good” on a four point scale reaching from “Bad” to “Good”. The result of the refurbishment in general is estimated in the same way, but when asked in more detail the tenants make another estimation: The result of the refurbishment of kitchen, bathroom, other rooms and lounge are as a mean estimated as over the level “Rather good”. There are of course variance, and some details of the refurbishment result are estimated lower, for example the balcony and the parquet floor, but on most aspects of the refurbishment the tenants estimates the result of the refurbishment of their own flat as better than that of the refurbishment as a whole.

The tenants were asked to estimate to what extent their refurbished flat met their demands on six quality dimensions: Appearance, Standards, Planning, Easy to handle, Home feeling and Environment protection. As a mean those tenants who answered the questionnaire estimated that their demands were met between “Partly” and “Totally” on a four point scale with the points: “Not at all”, “Not very much”, “Partly” and “Totally”.

As has earlier been described Kalmarhem used demonstration flats to show the tenants the expected result of three different ways to refurbish their flats. The tenants that answered the questionnaire estimated as a mean that this was a “rather good” way to present the alternatives, but they estimated as a mean that the demonstration flats gave a “less good” picture of what was in reality done.

The tenants were asked if they had the opportunity to influence the refurbishment to the extent they wished, and their answer as a mean was in the middle between “Less” and “Rather”. The conclusion with respect to what came forward in the part “Tenants participation” is that Kalmarhem could have gone further in individualisation of the refurbishment (for example concerning floor, cupboards, tile etc)

#### ***4.1.3 Environment and energy***

As with the study made in 1997 the answers to the questions concerning energy and environment shows a positive attitude towards environment preservation and energy conservation. As in the 1997 study many households are active in the recycling of garbage. As a mean the households sorts “almost all” of the garbage. (They were presented to a four-point scale with the steps: All, Almost all, Little, Nothing.) As much as 62% of those who answered the questionnaire is positive to the possibility to be able to influence the cost of living through preservation of heating energy.

A replication of the study concerning emotions associated to the words, “Environmental damage” and “Environmental engagement” shows a similar result. Positive emotions are associated with “Environmental engagement”, and negative emotions are associated with “Environmental damage”. The five most frequent words associated to “Environmental engagement” were: Interest, Determination, Enthusiasm, Joy and Warmth”, which are exactly the same five words that in the study 1997 were associated to the word “Environmental movement”. The five most frequent words associated to the word, “Environmental damage” was: Inhibition, Anger, Contempt, Shame and Tiredness. Four of these five words are the same as appeared in the 1997 study.

It is not very usual to find a correlation between verbal attitude and behaviour. This is partly the reason for measuring attitude through emotions in this study instead of through opinion. In this study the correlation between answering the emotion questions and the sorting of garbage was investigated. The hypothesis was, that positive emotions more than negative are apt to motivate action in order to preserve the environment. To measure this the households were divided into four groups with respect to how they had answered the emotion questions. The groups were: The Unengaged=U. (In this group all of the persons had chosen none of three most common words associated to “Environment engagement” and none of the three most common words associated with “Environmental damage”.) The Negatively Engaged=N. (In this group all the persons had chosen at least one of the three most common words associated with “Environment Damage”, but none of the three most common words associated with “Environment Engagement”.) The Positively Engaged=P. (In this group all persons had chosen at least one of the most common words associated to “Environment engagement”, but none of the three most common words associated with “Environmental Damage”) The Mixed Engaged=M. (In this group all persons had chosen at least one of the most common words associated with “Environmental Engagement” and also at least one of the three most common words associated with “Environmental Damage”) The groups were compared with respect to their reported habit to sort garbage. The result showed a clear tendency for those positively engaged to be more active in sorting garbage than the others. Between the other groups there were no difference. This is in accordance with the hypothesis, that positive emotions are activating, while negative are more apt to lead to inhibition and aversion and thus not lead to action. In this study the groups were too small for a certain conclusion, but it would be worth studying in a larger population.

The result of the study did not change the recommendation from 1997 that it is more important for Kalmarhem to work with solutions than with problems. This recommendation gets more support from the fact, that almost 60% of the tenants wants Kalmarhem to build a device for taking care of sorted garbage within the block.

## **5. The Questionnaire as a tool for tenant participation**

Tenant participation is an important issue to Kalmarhem. The questionnaires described above was used not only to monitor tenants attitudes, interests and behaviour. They were also used as a tool for facilitating tenants participation in the process of refurbishment, and also as a tool to stimulate tenants to be active in the process of environment preservation and energy conservation. They facilitated tenants participation in the process of refurbishment by being a vehicle for expressing tenants preferences, and also by being a starting point for dialogue between tenants and Kalmarhem. By containing questions about environment and energy the questionnaires were meant to make tenants aware of the importance of these issues.

Kalmar, Sweden 2002

**PsykologHuset Petersson AB**

*Leg Psychologist, Bernt Å Petersson*