

**SCHOOL INFLUENCES
ON
BULLYING**

**ERLING ROLAND
UNIVERSITY of DURHAM
School of Education
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3 Dedication

To my sister
Astrid Haga

You mothered me when I was little

You encouraged me to study
although you never got this opportunity yourself

I have gradually come to understand
how important you are to so many
And you still are to me

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The process of research can transform people into mean values, correlations and theoretical abstractions. Bullying in school concerns teachers, pupils and their parents. During the years, I have met many pupils who have been seriously involved as bullies or victims, and their parents. I have worked with many teachers to prevent and stop bullying in Norwegian schools. These teachers, parents, and pupils have been an inspiration in my work of generating abstractions and general conclusions.

I am aware that pupils in primary schools do not usually read research reports. And yet, I wish to thank them for answering the pupil questionnaire. I am also grateful to the parents who consented to their children's participation. Many thanks as well to the teachers who provided me with information about their classes and schools, and who administered the pupil investigation in their classes. Finally, a thank you to the headteachers who made it possible to conduct the investigation at their schools.

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June 1998

Erling Roland

5 Abstract

This thesis is concerned with the interactions between staff and interactions in the classroom in regard to bullying among pupils in primary schools in Norway.

The main investigation comprised 22 primary schools. A total of 2002 pupils, grades 4-6, and 279 teachers participated. Information was obtained through the use of one questionnaire developed specifically for pupils, and one developed for teachers. Only two of 15 selected schools were significantly different from each other on both Bullying Others (BO) and Being Bullied (BB). The school low on BO and BB also had significantly better scores than the other school on all staff related variables.

Information from all 22 schools, comprising 118 classes, was used in a class level study of the relationships between classroom management, social interactions between the pupils in the class and class level estimates of BO and BB. Both high scores on classroom management and high scores on social interactions between the pupils were strongly and negatively related to bullying others, and negatively but more weakly related to being bullied.

To consider the problem of causality more closely, a small-scale field experiment was conducted with two groups of first grade teachers, each group consisting of 20 teachers and their classes. Two groups of control classes were included. The teachers in the field experiment were offered four one-day seminars plus group counselling during the first school year. At the end of their first school year, the pupils in the two experiment groups and those in the two control groups were compared. The pupils in the experiment groups scored significantly better than the control groups on bullying others, and being bullied, as well as on all the other 8 variables studied.

The thesis concludes with a discussion of the results, and a theoretical model is suggested.

6 Abbreviations

BO	: Bullying others
BB	: Being bullied
PC	: Professional cooperation
Caring P	: Teachers' caring for pupils - Pupils' perception
Caring T	: Teachers' caring for pupils - Teachers' perception
Competence P	: Teachers' competence in Teaching - Pupils' perception
Competence T	: Teachers' competence in Teaching - Teachers' perception
Monitoring P	: Teachers' monitoring of pupils - Pupils' perception
Monitoring T	: Teachers' monitoring of pupils - Teachers' perception
Intervention P	: Teachers' intervention of pupils behaviour - Pupils' perception
Intervention T	: Teachers' intervention of pupils behaviour - Teachers' perception
Management P	: Teachers' management of class - Pupils' perception
Management T	: Teachers' management of class - Teachers' perception
Relations P	: Relations between pupils in class - Pupils' perception
Relations T	: Relations between pupils in class - Teachers' perception
Effectiveness P	: Effectiveness of schoolwork - Pupils' perception
Effectiveness T	: Effectiveness of schoolwork - Teachers' perception
Structure P	: Social structure of class - Pupils' perception
Structure T	: Social structure of class - Teachers' perception
PCT	: Parents' confidence in teachers
Helping T	: To help teachers
Helping F	: To help friends
W1	: Wellbeing during lessons
W2	: Wellbeing during breaks
PB-P	: Popularity of bullies - Pupils' perception
PB-T	: Popularity of bullies - Teachers' perception
PRS	: Pupil related stress

7 Declaration

Throughout this thesis, I have used the plurals 'we', 'our' etc. This is because I find it more natural to write in the plural when referring to research. This research is, however, the responsibility of the author and was carried out by him.

PART ONE: INTRODUCTION

1. Chapter one: Aims and Scope of the Study

When Peter Paul Heinemann, a Swedish doctor of medicine, published his first book on the topic of "mobbing" among pupils (1973), he directed society's attention towards a problem that has perhaps always existed, but which had not been regarded with scientific interest before. Originally, the term "mobbing" had been used by Konrad Lorenz (1968) to describe a particular kind of behaviour among animals. According to Lorenz's understanding, mobbing is a collective attack conducted by a group towards a deviant individual. Heinemann (1973) seems to have borrowed from Lorenz, both the term itself and the understanding of the social processes involved, transferring this understanding to similar behaviour among humans. He had observed children's behaviour in schoolyards, and concluded that mobbing could be understood as a collective attack by a rather large group of pupils directed against a single deviant peer.

Since then, mobbing - or bullying - has been a topic of great public and professional concern in the Scandinavian countries and Finland. A stream of books, reports and articles have been published covering both theoretical views, empirical results, and management theories (see e.g. Munthe 1989; Olweus 1974, 1978, 1980, 1984, 1987, 1991, 1993; Olweus & Roland 1983; Pikas 1976, 1988, 1989; Roland 1980, 1983, 1989a, 1989b, 1993a; Roland & Munthe 1997). Especially since the late eighties and onwards, this concern about bullying has also been apparent in many non-Nordic countries, in particular in Great Britain (Besag 1989; Mellor 1990; Smith & Thompson 1991; Smith, Bowers, Binney, & Cowie 1993; Smith & Sharp 1994; Tattum 1993; Tattum & Herbert 1990; Tattum & Lane 1989; Thompson & Sharp 1994), and in Ireland (O'Moore 1989; O'Moore & Hillery 1989; O'Moore & Hillery 1991). Furthermore, an interest in the topic has been evident in other European countries such as the Netherlands (de Kruif 1989; Mooij 1993), Spain (da Fonseca, Garcia, & Perez 1989), and Italy (Basalisco 1989).

From a Norwegian point of view, it is stimulating to notice that several of the researchers referred to above took part in a European Council conference about Bullying in School arranged in Stavanger, Norway in 1987 (O'Moore 1989; Roland & Munthe 1989). This conference came to be a starting point for research and practical work on bullying in many of the European Council's member countries, and several of the participants at the conference have published extensively.

However, the concern for bullying in school has not been restricted to Europe alone. We have seen a growing concern in Japan (Murakami 1985), in the USA (Batsche & Knoff 1994; Ross 1996), and in Australia (Griffiths, 1993; Rigby & Slee, 1990, 1991; Slee & Rigby 1993, 1994).

1.1 FOCUS OF INTEREST

Bullying has until recently mainly been analyzed at an individual level. Bullies and victims have been identified, and the two positions have mainly been explained by the personalities of these individuals. Further, home conditions have been focused on as important causes of such personality traits.

This 'home conditions - personality - bullying' structure has been dominant in studies concerning the dynamics of the behaviour. In recent years, however, whole school approaches to prevent and stop bullying have emerged. But empirical evidence for the possible connection between school and class level variables and bullying is very limited.

Our main focus of interest is to extend the emphasis on home conditions and personality as a focus for empirical research on bullying to include the social contexts of classroom and school. This focus on social structures at school and within the class is not, however, intended to underestimate the importance of home conditions and personality of the pupils.

A main purpose of this thesis, then, is to investigate differences between classes and schools concerning prevalence of bullying and to shed light on the reasons for such possible differences. One possible explanation for differences between classes and schools may simply be that the pupils as individuals are different from one class or school to another. This argument will make sense if aspects of individuality are connected to bullying at an individual level, and it is of importance to review the evidence for such relationships.

To some degree, personality is learned. It is possible, then, that particular home conditions are related to bullying, indirectly, by the impact of such family variables on the personality of the children. If home variables, personality, and bullying are connected at an individual level, then class and school differences on amount of bullying may be explained by differences between schools and class on particular family variables. Therefore, the

evidence for such connections between home conditions, personality and bullying will be reviewed.

Differences between classes and schools in the amount of bullying may however, be connected to special conditions of the surroundings of the schools, for example degree of urbanization, or to the size of the classes and schools. Consequently, we will also review research that concerns these questions.

But classes and schools may be different on prevalence of bullying because of social aspects of the classes and schools themselves. From an educational point of view, this approach is important and will be central in this report. It is possible that external factors such as urbanization and family conditions may influence the potential for bullying on the part of the pupils, but that class and school factors will inhibit or stimulate such potentials.

Schools and classes may differ in the amount of bullying. However, the concept of amount, is not simple and straightforward. Amount may be defined according to the percentage of the pupils who conduct bullying for example weekly or more often. Furthermore, amount could also be defined as the percentage of pupils who are victimized that often. These percentages may not be parallel at school and class level, and thus we have a methodological problem in defining the amount of bullying. On the other hand, the question of the relationship between percentages of bullies and victims is highly interesting as it concerns important aspects of the dynamics of bullying. Questions of dynamics will also be concerned both as we review previous research, and as part of our discussion of our own results.

1.2 THE STRUCTURE OF THE REPORT

Chapter two is a general review of the literature concerning bullying in school. We start with a discussion of definitions of bullying, and continue with previous research on the amount of bullying as this is reported from both large and small scale investigations in different countries, using different definitions and methods of research. The chapter is continued by a review of research on the connection between individuality and the role as bully or victim. Regarding home conditions, the focus will be the connection between family variables, individuality and bullying. Some research has been conducted on the impact of the surroundings and size of school and this research is also reviewed. In chapter two, we have also been concerned with the question of stability of bullying, as this is of special importance in theories about this particular kind of behaviour.

Chapter three is a review of theoretical approaches to bullying. In the opening section, we relate bullying to two broad categories of aggressive behaviour, namely reactive and proactive aggression. Then the pioneering work of Heinemann (1973) is discussed, and also a “Theory sketch” presented by Olweus (1978) which has proven to be very influential. The main approaches of these two pioneering works of Heinemann and Olweus are quite different when several aspects of their theories are concerned, and they are in fact different also in a more fundamental way, as Heinemann regards mobbing, or bullying, as a kind of reactive aggression, whereas Olweus predominantly describes bullying as proactive aggression. We continue by presenting and discussing some theories, or fragments of theories, mainly drawing on general social psychology. The chapter concludes with a discussion of the relation between bullying and social contexts of this behaviour, as this is of particular importance for our own research.

The next three chapters, chapter four, five, and six, present and discuss previous research on the possible impact of school and classroom level social structures on pupils’ behaviour and performance.

An introduction to this topic is given in chapter four, before we continue with a review of school level research in chapter five. The main focus is on social variables at this level that are commonly reported as important for pupils’ learning outcome and behaviour. A few such variables are discussed more comprehensively and selected for our own investigation.

The classroom level is addressed in chapter six, with a review of previous research about how classrooms and management by teachers have been conceived. We relate these variables to outcome variables such as pupils’ learning and behaviour. In the same way as for our school level review, we select and discuss some class level variables for our own investigation.

These three chapters, (chapters four, five, and six) provide the basis for the empirical questions raised in chapter seven.

Chapter eight concerns our method of research. We start with a general discussion of our method, and continue with a discussion and description of the sample. A discussion of the reliability and validity of the instruments is the final section of this chapter.

Chapters nine, ten and eleven comprise our results from a school level and class level study. Chapter nine concerns the relation between school level variables and school level estimates

of bullying, while in chapters ten and eleven we give the results of a parallel classroom level analysis. About 2000 pupils in grades 4-6 and teachers at the schools have given us the information.

Chapter twelve describes a field experiment among first grade teachers and their pupils. Two groups of 20 teachers in each group took part in a program designed to improve their general management skills. These skills were nearly identical to the leadership variables we investigated at class level in our main investigation. Class level estimates of bullying and other estimates of pupils' behaviour and attitudes, were obtained at the end of the program and compared with the estimates obtained from two control groups. An important purpose of this program was to study more closely the causal relationships between variables investigated in our main study.

In our final chapter, chapter thirteen, we present and discuss a theoretical model of interactions of bullying and social contexts of these interactions. The model comprises the family networks of the pupils of a class and the social structures at class and school level. These elements of context mainly reflect the variables of our own investigations and we discuss some of our empirical results as we elaborate on the model.

The model also comprises an understanding of interactions between bullies and a victim. Bystanders are also included in this part of the model. These supposed interactions were not a part of our empirical investigations, presented in chapters nine - eleven. The understanding presented is therefore a combination of different theoretical approaches.

Our theoretical understanding of interactions in bullying could, however, be related to empirical results about structural contexts included in the model. In this way, we attempt to discuss the relevance of our "context - interaction" conception, as we also point to questions that should be topics of further research.

PART TWO: REVIEW OF LITERATURE

2. Chapter two: Bullying in Schools: A Critical Review of International Research

2.1 *DEFINITIONS OF BULLYING*

Smith & Sharp (1994) define bullying as the systematic abuse of power (p.2). Olweus (1991), who has published extensively on bullying, defines the problem in this way:

"A person is being bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons" (p.413).

We have suggested that

"Bullying is longstanding violence, physical or psychological, conducted by an individual or a group and directed against an individual who is not able to defend himself in the actual situation" (Roland 1993a, p.16).

These three definitions have much in common. First and foremost, bullying is understood as negative behaviour, directed against another human being. In two of the definitions cited above (Roland 1993a; Smith & Sharp 1994), it is emphasized that a precondition of bullying is that the victim must be unable to defend him/herself in the actual situation. This element is included to separate bullying from fights or conflicts, in which the physical or mental power of two parties is assumed to be about equal. Although Olweus does not include this aspect in his definition of bullying, he does make the same point (1985, 1991), as do other researchers (Smith & Thompson 1991).

Further, regularity and timespan are regarded as important. How often and for how long a period must the incidents take place to be classified as bullying? When can an individual be termed "a bully" or "a victim of bullying"? Observing an episode, it is probably not easy to know if this is an isolated incidence, or one out of many in which the same pupils are involved. But for the victim, it is obviously different if he or she regards this as an isolated case, or something that has happened often and over a long period of time. In the latter case, the incident will probably remind the victim about his or her social role or identity as a

victim of bullying. Also, the question of regularity and duration may make a difference to how the bullies understand an episode and their social identities. We asked the pupils in a secondary Norwegian school how often they were bullied or had bullied others, and used alternatives ranging from "never" to "each day" (Roland 1980). This technique for estimating regularity was adopted and used in a Norwegian national survey of 1983 (Olweus 1985, 1991, 1993). Further, a specification of timespan was included in the 1983 questionnaire (Olweus 1985, 1991, 1993). An English version of the "Olweus Inventory", in which duration and regularity is included, has been widely used.

Regularity and duration, then, are commonly regarded as necessary for defining the social role of a pupil as a victim of bullying or as a bully. When regularity is concerned, several choices have been made ranging from "now and then" to "once a week or more often". As for duration, it has become common to define timespans of some months, one term or one (school) year. The verb bullying and the meaning of the interaction in bullying should also be related to regularity and stability, not only to what can be observed when the interaction takes place (Olweus 1991, p.413).

According to the above definitions, the negative behaviour can be understood as bullying both when it is conducted by a group and by an individual. This is not consistent with the understanding put forward by Heinemann (1973), nor is it the understanding held by Pikas (1976, 1989). Pikas maintains that the term mobbing should be used, also in English, to stress the understanding that "...mobbing designates group violence" (Pikas 1989, p.92). Without questioning Pikas's point, that bullying conducted by a group very likely involves somewhat different social processes than if it is conducted by an individual, it is still common to understand it as bullying both when the behaviour is conducted by groups and by single individuals (Olweus 1991; Roland 1993a; Smith & Thompson 1991; Smith & Sharp 1994).

In addition to the mentioned key characteristics of bullying, it is also common to differentiate between different forms of bullying. The bullying in question may be both physical and/or psychological. Physical bullying can be pushing, hitting, or other forms of physical bruising. Psychological bullying includes e.g. name-calling, talking behind others' backs, and teasing. Also exclusion, or active isolation, is regarded as a kind of psychological bullying (Heinemann 1973; Munthe 1989; Olweus 1978, 1991; Olweus & Roland 1983; Pikas 1976, 1989; Rivers & Soutter 1996; Roland 1980, 1983, 1989; Smith & Thompson 1991; Smith & Sharp 1994). Some authors also suggest a more detailed differentiation (Griffiths 1993; Tattum 1993), and several researchers use the terms direct and indirect

bullying (Olweus 1991; Smith & Sharp 1994). Direct bullying refers to relatively open attacks, physical or verbal, on the victim, whereas indirect bullying is understood as social isolation of another individual.

An important point is made by Besag (1989) and Tattum (1993) who both include intentionality in their definitions of bullying. Tattum puts it this way, by saying that bullying is

"the wilful, conscious desire to hurt another and put her/him under stress" (Tattum 1993, p. 8).

Intentionality may also be evident in Pikas' (1989) understanding of bullying although it is not part of his definition. However, it would seem that intentionality grows out of group processes and not individual intentions. Pikas states that the bullies "are caught up with the idea of tormenting a victim" (1989, p.93).

It should also be noticed that Olweus in the cited definition above uses the term "negative actions" instead of "violent" actions or violent behaviour about bullying. There may be some disagreement about whether bullying in general, or certain forms of bullying, should be understood as violence. Recently however, in a UK High court publication, covering the first case concerning bullying which has been treated by an English court, a definition made by the judge is cited:

"Bullying is long-standing violence, physical or psychological, conducted by an individual or group and directed against an individual who is not able to defend himself in the actual situation, with a conscious desire to hurt, threaten or frighten that individual or put him under stress" (Heald 1994).

For legal purposes, then, the judge decided to include both an intention to hurt, and a defined kind of longstanding, observable violence, in the definition of bullying.

Being a legal definition, however, is not necessarily the same as being the most convenient definition for social researchers. Especially, the question of intentionality has proved to be controversial within research about aggression in general (Buss 1961; Tedeschi 1984), and most researchers do not include this element in their definitions of bullying. However, intentionality is obviously an important question and it could be an issue for further research. When communicating with different kinds of pupils, as part of an empirical study, it may however be problematic in an explicit way, to include the element of an intention to hurt. This remains, however, to be tested systematically.

Another important and difficult issue is the element of provocation. Smith & Thompson (1991) say:

"The hurt done is unprovoked, at least by any action that would normally be considered a provocation" (Smith & Thompson 1991, p.1).

We will return to this question, as we discuss a subgroup of victims, often called bully/victims or provocative victims (Olweus 1978).

Today, the key characteristics that are included in the three definitions initially cited (Olweus 1991; Roland 1993a; Smith & Sharp 1994) seem to be reasonably representative as an international standard, at least when empirical research is concerned. But for the important case of international communication, it should be recognized that some problems of terminology obviously exist relating to different languages. According to Arora (1996) the term "bullying" has differing connotations in various English speaking countries. And in general, to find equivalent words in different languages to cover the meaning of bullying, is not that easy (Arora 1996; Griffiths 1993).

2.2 *PREVALENCE OF BULLYING; AGE AND GENDER*

A commonly used method to investigate the degree to which bullying occurs, is to identify the number or percentage of individuals who can be classified as "bullies", "victims of bullying" or both. Cut-off points for regularity and duration are normally set in accordance with a definition of bullying.

The importance of providing respondents with a definition of bullying has been demonstrated in several studies. Simply to ask pupils if they are bullied, or if they bully others, will not give valid information because different pupils may have different things in mind when they respond to the word bullying (Arora 1996; Arora & Thompson 1987; Smith 1991; Smith & Levan 1995). Analyses conducted on an individual level will not be valid without a definition having been communicated to the pupils. Comparisons of various investigations will also necessitate fairly standardized definitions.

Analyses on an individual level will also prove difficult if duration and regularity are not known, and this is also the case for comparative studies. However, to define logical cut-off points for duration and regularity is probably not possible, and researchers may justify their

criteria according to different purposes. Very restrictive cut-off points for duration and regularity may for example be convenient for researchers interested in long-term effects for victims and bullies, while other criteria may be preferable if the purpose is to compare and analyse the prevalence of bullying in different social systems, such as classes or schools.

Fairly detailed information about the prevalence of bullying has been gathered in the Scandinavian countries, especially in Norway. This is mainly due to two very large investigations that have been conducted in these countries in addition to several smaller studies.

The largest and most representative study of bullying so far, was carried out in 1983 as part of the Norwegian national campaign against bullying in school (Olweus 1985, 1991). A questionnaire was administered to most primary and secondary schools. Data from about 10% of these pupils were analyzed, representing about 140 000 students in grades 2 - 10 (aged 8 - 17). The definition of bullying given to the pupils was as follows (our translation):

"We do not call it bullying when two pupils of about equal strength quarrel or fight. And it is also not bullying if a pupil is teased one single time for something. But we do say that a pupil is bullied when another pupil or several other pupils say nasty and unpleasant things to him or her, or if they threaten him or her. Or if the pupil is hit, kicked, spat at, locked in, is beat up, or other such things. With bullying, these things happen many times, and the pupil this happens to is not able to defend him/herself. He or she is often quite helpless during these attacks. If a pupil is teased in an unpleasant way many times, then this is also regarded as bullying" (Olweus 1985, p.19).

2.2.1 Victims of bullying

In this study, nearly 10% of the pupils questioned, replied that they were bullied now and then or more often, with slightly more boys than girls in this percentage. The percentage of victims in primary schools decreases with increasing grade level for both girls and boys. This tendency continues for boys in secondary school, but very slightly. For girls, a significant drop in the percentage is reported from grade 6 (primary school) to grade 7 (secondary school). No linear connection exists from grade 7 to 9.

A study conducted three years later (The Janus Project 1985-1988), in spring 1986 at 37 of the same primary and secondary schools as in the investigation above, and which

represented more than 5,000 pupils in grades 4-9 (aged 10-16) shows similar results for age and gender. In this study, it was decided to use a cut-off point of "bullied once a week or more often" instead of "now and then or more often." However, the definition of bullying was the same as that used in the Olweus study cited above. The timespan referred to in the questionnaire was "this school year". The total percentage of victims in grades 4-9 was about 3.5%, and higher for boys than for girls (Roland 1989b).

An investigation based on a smaller number of participating pupils, was reported in the beginning of the 1970 's by Olweus (1974, 1978). The sample comprised boys aged 12-14 in the Stockholm area in Sweden. Olweus reports that about 5% of the boys were bullied seriously. In fact, this is also the first empirical study of bullying, and it has been most influential. Since about 1980, several other studies in primary and secondary schools have been carried out in the Scandinavian countries and Finland (Mykletun 1979; Roland 1980, 1993a; Bjørkqvist, Ekman, & Lagerspetz 1982; Lagerspetz, Bjørkqvist, Berts, & King 1982). The percentages of victims identified have varied somewhat, but a mean estimate from these studies is that about 5% of the pupils are bullied seriously.

The prevalence of bullying in high schools (age 16-19) has been investigated by Vaaland (1994), using a definition almost identical to that used in the Olweus study (1985) and the Janus study (Roland 1989b). The survey covered three counties and 8 high schools in Norway, a total of 3000 students. 2.7% of the students reported being bullied once a week or more often. When differentiating for gender, it was again found that more boys than girls reported being bullied. The percentage for boy victims was nearly twice as large as that for girl victims in that 4.3% of the boys and 2.3% of the girls reported being bullied on a weekly basis.

All in all, when regarding results from the Nordic countries on the percentage of victims of bullying, one can estimate that about 5% of the pupils in primary and secondary schools are victims of bullying once a week or more often. The percentage is slightly higher for boys than for girls, and decreases with increasing age, at least at the primary level. In high schools (age 16-19), the percentage of victims seems to be quite similar to the level in secondary schools (age 13-16), both for girls and boys.

In the UK, the Sheffield investigation (Whitney & Smith 1993; Smith & Sharp 1994) stands out as one of the most extensive. Over 6,000 pupils in 17 junior/middle and seven secondary schools, all in the Sheffield LEA, answered questions pertaining to prevalence, gender, types of bullying, where bullying occurs, whether teachers and parents are informed, and

attitudes to bullying. In the following, we will only present results on prevalence, age and gender.

Using a slightly modified "Olweus inventory", respondents were given a 25-question questionnaire which contained a definition of bullying. This definition emphasizes types of bullying such as verbal (say nasty things), physical (hit, kicked) and threatening (oral and written). It includes the aspect of not being able to defend oneself, and it also states that it is not bullying when the children in question are of about equal strength. As we have seen above, this is in line with the definitions used in Scandinavia by Olweus (1985) and Roland (1989b, 1993a). The time aspect is not included in this definition, but it is apparent in the questions asked since they refer to bullying "this term". Respondents completed the questionnaires in late November so that "this term" would apply to the fall term of the academic school year in 1990.

The total percentage of children being bullied by others is higher for respondents in this study than for respondents in the 1983 national survey in Norway. One trend found in the Sheffield investigation, however, seems to be similar: The amount of children who report being victims of bullying tends to decrease with increasing age.

The researchers (Whitney & Smith 1993) found that there was not much difference between boys and girls in the frequency of being bullied. 10% of both boys and girls in junior/middle schools reported being bullied once a week or more, whereas 5% boys and 4% girls in the secondary schools reported the same.

As for secondary school students, the Sheffield study also found a tendency for being bullied to decrease with increasing age. In the 16-18 age group, the percentage was zero. For this age group, the finding reported does differ from the results reported by Vaaland (1994), where a total of nearly 3% of the 16-18 age group at secondary schools in Norway report being bullied at least once a week.

Other studies carried out in the UK are for instance reported by Mellor (1990, 1995), who found that of 947 secondary pupils in Scotland, 6% reported being bullied "sometimes or more often" and of these, about 3% were bullied "once a week or more often". Slightly fewer girls than boys reported being the victims of bullying.

In Ireland, O'Moore and Hillery (1989) found that 8% of 783 children of 7-13 years of age were seriously bullied, i.e. bullied once a week or more often. Their research also showed a

tendency for boys to report being bullied more often than girls. This investigation also differentiated for remedial classes, and found that 11.5% of the pupils receiving remedial education reported being bullied once a week or more often.

Mooij (1993) reports on the Dutch Foundation for Educational Research investigation, which was carried out in 1990-92. Mooij also found the same tendency that the percentage of Dutch children reporting being bullied dropped for the older children. 8% of about 1,000 children in primary schools, who responded to the questionnaire on bullying, reported having been bullied once a week or more often. As many as 23% stated that they had been bullied sometimes or more often. Even at the level of "several times a week" the percentage is still 4% for the children in this study. A further differentiation of age or gender was not given. However, such results for children in secondary education were given. These indicated a drop, as mentioned above, in that 2% of the pupils report being bullied once a week or more often. When including "sometimes", the percentage increased to 6%.

Contrary to findings reported above, more girls than boys reported having been bullied "this term" in the investigation carried out by da Fonseca et al. in Spain (1989). 19.6% of the girls and 16% of the boys state that they had been bullied. The cut-off criterion was not reported, however.

Pepler, Craig, Ziegler, and Charach (1993) reported that the Toronto Board of Education in Canada conducted a survey in 22 elementary schools. A questionnaire based on the one used in Norway in 1983 was administered to 211 children in 14 classrooms. The respondents were aged 8 - 14. A total of 8% of these respondents reported being bullied once a week or more often. However, here as in the Sheffield study, the proportion of boys and girls was found to be essentially equivalent. Again though, the tendency was for younger children to report being bullied more often than older children.

Three South Australian primary schools consisting of 412 children between the ages of 7 to 13 years were investigated by Slee and Rigby (1993) to determine the incidence of bullying behaviour, being victims of bullying and prosocial behaviour. Based on a questionnaire developed for this study, the researchers found that about 10% of the boys and 6% of the girls reported being bullied by others once a week or more often. The frequency of reported bullying was found to be greater in the higher grades. An additional dimension was included in this investigation, namely duration. Slee and Rigby (1993, p.277) found that for "some 8% of the children bullying episodes lasted 6 months or more." In an earlier investigation

(Rigby & Slee 1991), about 10% of the secondary school students who were questioned, reported being "seriously affected" by bullying behaviour directed at them.

2.2.2 Bullies

The 1983 investigation in Norway, which was part of the national campaign against bullying, found the percentage of children reporting that they bullied others "now and then or more often" to be slightly lower than that of those reporting being victims of bullying - about 7% (Olweus 1985, p.19).

Boys reported much more often that they took part in bullying others, and there was a slight increase with increasing age. For girls, reported involvement in bullying decreased slightly with increasing age (Olweus 1985, p.20). The percentage of girls who reported bullying others declined from grade 2 to grade 9, but this tendency was not strong. For boys, the highest level of bullying was found in grades 8 and 9. At primary level the percentage for boys was about twice as high as that for girls. At secondary level, the percentage is three to four times higher for boys than for girls. There was, however, no clear connection between percentage of bullies and grade level, as there was for those reporting being victims of bullying.

This tendency was also apparent in the findings of the Janus Project (Roland 1989b). In this study, the mean level was, however, slightly higher at primary school level than at secondary school level. The cut-off point in this study was "bully others once a week or more often". The Janus Project found that 3.2% of the respondents reported having bullied others "once a week or more often" that term. The figures were much higher for boys (4.5%) than for girls (0.7%).

Other Nordic studies found a percentage of children reporting that they bullied others ranging from one to about 10% (Mykletun 1979; Roland 1980, 1993a; Bjørquist et al. 1982; Lagerspetz et al. 1982; Vignes Steine & Aukland 1980). In his Stockholm investigation from the early 1970's, Olweus reported that about 5% of the boys persistently bullied others (1974, 1978).

Vaaland's (1994) investigation among high school students (age 16-19) in Norway found the same tendency as had been discovered among younger children. Fewer girls reported taking part in bullying than boys. In fact, the difference between girls and boys in their reports of taking part in bullying was quite substantial. Of about 3,000 students, a total of

nearly 4% reported having bullied others once a week or more often. When differentiating for gender, she found that 6% of the boys admitted to bullying others, whereas only 1.5% of the girls reported this behaviour.

Turning to the UK first, in our review of research outside Scandinavia, we find that the Sheffield study has somewhat different results to those found in Scandinavia. The highest level of reported bullying "sometimes or more often" was found to exist in ages 7-10. The lowest percentage of reported bullying of others was found among age groups 11-13 and 16-18 (Whitney & Smith 1993).

The researchers did not find the same tendency that reported bullying behaviour among boys seems to increase with increasing age, such as was found in Norway. However, this tendency seems to be apparent among the girls in this study.

When setting the cut-off criteria at "once a week or more often", the researchers found that the incidence of children reporting being bullies "was much lower but more constant, with percentages... fluctuating between 2 and 4 percent among junior/middle pupils and between 1 and 2 per cent at secondary level" (Whitney & Smith 1993, p.10). When considering girls and boys separately, the authors did find the incidence of bullying others to be higher among boys than girls. It is, however, interesting to note that the age group 11-12 years shows an incidence of bullying others that is slightly higher for girls than for boys when the cut off is "sometimes or more often". The incidence rate is also lower for girls than for boys when the cut-off is "once a week or more often," for this age group.

In Scotland, Mellor's (1990) examination of bullying among 942 secondary school pupils found that 4% of the sample reported having bullied others "sometimes or more often" that term, and of these, 2% had bullied others "once a week or more often". The author found clear differences between the genders in that half the boys and just over a third of the girls report had bullied others at some time. It is however not clear what the differences are when the cut-off is "sometimes or more often" or "once a week or more often."

In Ireland, O'Moore and Hillary (1989) found an incidence of 2.5% who were regarded as "serious bullies", i.e. bullied others once a week or more often.

Mooij (1993) reported on the Dutch Foundation for Educational Research project. About 2,000 pupils in primary and secondary schools took part in this project. According to Mooij, 20% of the pupils in primary schools reported having bullied others "now and then or more

often" whereas with a cut-off at "once a week or more often", this percentage dropped to 6%. For secondary school pupils, the percentages were 16% and 5% respectively. The author did not differentiate for gender or present age differences other than that above.

Da Fonseca et al. (1989) found, in their survey of 10 schools comprising 1,200 pupils in the area around Madrid, Spain, that slightly more boys than girls admitted to having bullied others. 18% of the boys reported having bullied others whereas 15.5% of the girls did. The cut-off criteria were not given. The authors did not differentiate for gender and age simultaneously, but when looking at differences in bullying behaviour for the various age groups, they did find that fewer older students reported having bullied others than younger ones.

As we have seen, it was also found in Norway (Roland 1989b), that there was a substantial difference in percentages of boys reporting being bullies compared with the percentage of girls reporting being bullies. This is especially the case at the secondary level. And as referred to above, similar studies have found the same tendencies both in Scandinavia and elsewhere. Pepler et al. (1993), reporting on the Toronto Bullying Survey, found that "three times as many boys as girls acknowledged bullying others on a regular basis" (1993, p.77). What criteria are implied by "regular basis" is not known. The survey found that 15% of the 211 students who responded to the questionnaire stated that they had bullied others "more than once or twice a term".

2.2.3 Bully/victims

Mainly, bullies and victims are not the same pupils. But in the first empirical study of bullying, Olweus (1974, 1978) established a substantial overlap between being bullied and bullying others.

The degree of overlap between bullying others and being bullied could be estimated by the percentages of bullies who are also victims, and vice versa, according to some criteria, or by the correlation between the two estimates. Both procedures may estimate whether one of the two roles predicts the other. A positive and significant relation between the two roles has generally been confirmed (Roland 1980; Boulton & Smith 1994). However, this significant relation is reported to be weak, or moderate. When coefficients of correlation are reported, these coefficients tend to be about .30.

The risk of being a victim, then, increases slightly by being a bully, and vice versa. This general conclusion raises questions both about the dynamics of bullying, and also questions concerning the characteristics of victims, bullies and bully/victims. The last subgroup has, however, not been investigated in much detail. A difficult question is whether some victims may be provocative to the bullies (Olweus 1978; Munthe 1989), and whether abuse of power towards such victims should be defined as bullying in the conventional way (Smith & Thompson 1991). It is not unlikely that some bullies may be very clever at pushing victims into a provocative role, so as to legalize their own behaviour (Roland 1983).

2.2.4 A note on methodology

Using self-report, as most studies do, slightly more of the pupils in primary and secondary schools reply that they are bullied than reply that they themselves bully others, when the same criterion for duration and regularity is used. This result seems to be quite stable within large-scale investigations (Olweus 1985; Roland 1989b). There is, however, reason to believe that the actual percentage of bullies is somewhat higher than what is estimated by self-report. Findings pertaining to the percentage of bullies and victims using other methods, e.g. when teachers or peers are asked to give information about pupils, indicate that the percentages of bullies and victims are at about the same level, or that the percentage is higher for bullies than for victims (Olweus 1985; Bjørkqvist et al. 1982; Lagerspetz et al. 1982). This may indicate that bullies more often than victims, do not report their involvement in bullying, and in addition, one suspects that girls especially underreport bullying behaviour (Roland 1983; Bjørkqvist et al. 1992; Rivers & Smith 1994).

2.2.5 Conclusion on prevalence

Mainly, information about prevalence of bullying is obtained by the use of anonymous questionnaires to pupils, in which they report their own status as victims and bullies.

In the Scandinavian countries, a main conclusion that can be drawn from two large investigations, and several more limited ones, is that about 5% of the pupils are victimized weekly or more often. Among the youngest pupils, the percentage is between five and ten, and it is below five among the oldest pupils in secondary school, and in high school. The percentage of victims decreases fairly steadily with increasing age in primary school. Slightly more boys than girls are victims of bullying.

Slightly below 5% of the pupils report that they bully other pupils weekly or more often, and this percentage is fairly independent of age in primary, secondary, and high school. Three or four times as many boys as girls report that they bully others weekly or more often. Using self-report, some bullies will probably not report their bullying, and the estimate will be somewhat low.

Especially since the late eighties and onwards, a considerable number of studies from many non-Nordic countries, Great Britain, several other European countries, North America, Australia and Japan have been published. A main conclusion seems to be that the prevalence of bullying reported from the Scandinavian countries, and from Norway in particular, does not seem to be especially high compared to the overall picture from non-Nordic countries.

Also, the gender and age tendencies reported from Scandinavia, seem to be mainly confirmed. At least for bullies, the difference in prevalence between boys and girls, may be greater when the cut-off point of regularity is "once a week or more often" compared to "now and then or more often". This tendency is demonstrated in the two large Norwegian investigations (Olweus 1985; Roland 1989b), and to some degree in the Sheffield study from England (Whitney & Smith 1993). This tendency may indicate that the gender difference in bullying others is most significant when the more chronic bullies are concerned.

The accuracy of the estimates of association between age and prevalence of bullying may also be questioned. It has been argued (Ross 1996) that when responding to a definition of bullying, older children may conceive bullying in a more restricted and limited way than younger children do. If this is correct, the substantial negative connection between age and prevalence of victims would be overestimated in investigations using self report. Also, it is possible that the prevalence of bullies in fact increases with increasing age, instead of being fairly independent of age, as has been reported in most investigations.

A consistent conclusion from studies that have considered the connection between bullying others and being bullied is that the two roles are positively, but not very strongly related.

Somewhat differing results concerning the prevalence of bullying have been reported both between and within countries. The empirical evidence is far from solid enough to conclude anything certain about differences between countries. This question is highly interesting, however, especially when reasons for such possible differences are concerned. Different

results for prevalence are also observed within several countries. Some of this variation may be real, and not caused by differences of definition or criteria for regularity and stability.

For the moment, we wish to remain on the individual level and take a look at research, which has concentrated on the persons involved in the bullying activities; the bullies and their victims.

2.3 *PERSONAL CHARACTERISTICS OF VICTIMS AND BULLIES*

Both external and psychological characteristics of pupils reporting being victims of bullying and of those reporting bullying others have been studied. Foci of interest have been the children's physiology, such as strength and appearance, psychology, such as self-esteem, and the academic abilities of the bullies and victims. In addition to these topics, we have also chosen to place "popularity" under this heading as it may be regarded as a psychosocial characteristic.

2.3.1 Physical traits

Olweus (1978) compared victims, bullies and other pupils according to physical strength and appearance. The sample consisted of 41 victims, 39 bullies and 45 control-pupils, all of them Swedish boys aged 12-14. The head teachers in the boys' classes were asked to evaluate the pupils.

Olweus concludes that victims, as a group, were no more deviant than other groups. An exception was found, however, for physical strength. The boys found to be victims of bullying were weaker than the control group.

No difference was found between bullies and the control group concerning physical appearance. The bullies, however, seemed to be a bit stronger than the control group.

In the Swedish investigation, the bullies and victims were compared with a control group (Olweus 1978). The definition of deviance used in this investigation seems, however, to be unfortunate. It is possible that the teachers' assessments of physical traits were influenced by how they assessed the pupil's behaviour. In fact, the teachers were first asked to identify bullies and victims among their pupils, and then to assess the physical traits of these pupils. How this procedure may have influenced the assessments is difficult to say.

In Finland, Lagerspetz et al. (1982) asked teachers to compare victims, bullies and a group of socially well functioning pupils on physical traits. No group of ordinary control pupils was used. The victims were described as physically weaker than pupils in both of the other two groups. The bullies, on the other hand, were described as stronger than both victims and the well functioning group. Furthermore, the victims, and to a certain degree the bullies, were described as more deviant in appearance than the well functioning group. A main problem of the Lagerspetz et al. investigation (1982) is that the control group consisted of especially well functioning pupils. It is not easy to say, then, how "normal" or "deviant" victims and bullies are on physical strength and appearance.

How physical traits influence a girl's position, as either victim or bully is not known. The Swedish sample consisted of boys only, and Lagerspetz et al. did not differentiate for gender.

In conclusion, physical appearance does not seem to be a major trait distinguishing bullies and victims from other pupils as far as boys are concerned. Boy victims do, however, seem to be below average on physical strength and boy bullies tend to be above average. Problems of methodology do exist, and more research is needed. Girls should be included in future studies. In addition, it would be interesting to shed more light on correlations between physical traits and psychosocial variables in bullying.

2.3.2 Psychological characteristics

Connections between different psychological characteristics and bullying have been investigated in several studies.

Academic achievement

Victims: Mykletun (1979), in a study of about 900 pupils aged 13-16 in Norway, found that the victims of bullying received lower grades than the mean for their class level in Norwegian, English and math. In a sample of about 400 pupils at one Norwegian secondary school, the victims scored below average in Norwegian and math (Roland 1980). Finally, Olweus (1974) reports that victims are average, or slightly below in academic achievement.

In a recent Norwegian investigation of school and class environment and psycho-social problems conducted among about 1,000 8th grade pupils (15 years) and their teachers, Bru, Boyesen, Munthe and Roland (accepted for publication) found that pupils who reported

having learning difficulties were significantly more associated with being harassed at school than pupils not reporting having learning difficulties. Another interesting finding from this investigation is that students who were unsure of whether they had learning difficulties or not, were also associated with being harassed and with a poor perception of teacher's academic support.

Research on mainstream and special needs pupils has been conducted in Ireland (O'Moore 1989) and England (Whitney, Nabuzoka, & Smith 1992; Whitney, Smith, & Thompson 1994) and has found that children with special needs seem to be bullied more than children who are in mainstream classes.

The main tendency, then, is that victims, when regarded as a group, score below average on academic achievement. This is reported for both boys and girls (Roland 1980).

We can suggest several explanations for a relationship between low grades and being bullied. It is possible that low grades for one reason or another increase the risk of being bullied. Pupils who do poorly may also be verbally weak or be regarded as foolish by their peers. In this sense, below average achievement can be regarded as a risk factor for being bullied. Thus, low grades may be regarded as socially stigmatizing and they may partially predict who will be bullied.

On the other hand, the position of a victim is probably very stressful, and this may lead to emotional problems like anxiety or depression (Lazarus 1966; Seligman 1975; Ross 1996) and to low grades in the long run (Roland 1983).

Perry, Kusel and Perry (1988) found a significant negative correlation between intelligence and victimization. This study included only males in its sample. The result may indicate that weak intellectual capacity, which is of course highly related to low grades, could contribute to a career start as a victim. It is not unlikely, then, that low intellectual capacity, and low achievement at school, may be a risk factor for being bullied, and that longstanding bullying could contribute to a further drop in school grades.

To investigate such conceptions of causality as presented above, longitudinal studies could be conducted. Studies of this kind would necessitate careful consideration of aspects of ethics and practicality. Another approach could be to investigate a possible connection between academic achievement and the position as victim at different age levels, controlled for intelligence.

Bullies: Where bullies are concerned, findings have varied. Mykletun (1979) in his Norwegian sample found no connection between academic achievement and bullying. Olweus (1974) reported that bullies were slightly below the mean as concern grades. In two Norwegian samples, Roland (1980) and Vignes Steine and Aukland (1980) found that the bullies were significantly below the mean. Both samples were composed of about 400 secondary school pupils.

Results for boys and girls were analysed separately by Roland (1980), and the tendency differed for the two sexes. Boys who were bullies received significantly lower grades than the mean grade level, whereas the tendency for girls went slightly in the opposite direction.

Whitney et al. (1992) report no significant correlation between being a child with special educational needs and being a bully. However, it was found that girls with special educational needs (in this case defined as MLD) were as likely to be bullies as boys with special educational needs. Whitney et al. (1994a) report that children with special educational needs were slightly more involved in bullying others than mainstream children.

The other investigations cited above, which were conducted in Norway, studied bullying and academic achievement without differentiating for special needs. For girls, we may assume that there is, as yet, no indication that academic ability can be an important cause of bullying other pupils. For boys, however, a negative, but not very strong connection between academic ability and bullying behaviour seems to exist. To draw conclusions about causality based on this is difficult, however. The connection between low grades and bullying is weak, for one thing. Another problem is that victims, to a stronger degree than bullies, also are low on academic achievement.

Self esteem

The relationship between self esteem and bullying has been focused on in several investigations. Mykletun (1979), in a study among about 900 Norwegian pupils at secondary level estimated both general self esteem and "pupil self esteem". The latter is understood as the way in which the pupils assessed their own qualities as pupils in school. He found that victims of bullying had a lower self esteem than the mean for the group, and that this was also the case for "pupil self esteem". Two tests with a total of 64 items were administered.

According to information given on 21 victims, 21 bullies and 22 well functioning Swedish boys at secondary schools, Olweus (1978) found the self esteem of the victims to be significantly lower than that of the well functioning boys. In the following, this investigation will be referred to as Investigation I. Olweus (1978) has also published results for self reported self esteem of 10 victims, 11 bullies and 60 pupils not involved in bullying comprising the control group. All were Swedish boys at secondary schools. The victims were reported to be lower on self esteem than the control group although this tendency was weak. In the following, this study will be called Investigation II.

Only a few of the items used in the above two investigations have been cited, but from these it seems feasible that an indication of a more general self esteem was intended. The sample in Investigation II was small, but an ordinary control group was used. In Investigation I, the control group consisted of well functioning boys, and perhaps this may explain some of the difference found.

A sample of Finnish secondary pupils was investigated by Bjørkquist et al. (1982). This sample consisted of 18 victims, 27 bullies, and 110 pupils as a control group. The pupils evaluated themselves on intelligence, emotional dominance, persistence, depression, impulsiveness, and personal charm. Results indicate that victims were lower on charm and intelligence than the control group. Only minimal differences between victims and the control group existed for the other items.

Bjørkquist et al. (1982) presented the results item by item, but deferred from relating the scores to a general concept of self esteem even though this was the key concept of the discussion.

In an Australian study, it was found that bullied pupils had slightly lower self-esteem than non-bullied peers (Rigby & Slee 1991), a finding which also seems to be confirmed in Haselager and van Lieshout 's (1992) report that bullied students reported lower self-evaluations than non-bullied pupils.

Reporting on a British sample of 8-9 year old children (N= 158), Boulton and Smith (1994) reported that victims scored significantly lower than non-victims and bullies on athletic competence, social acceptance and global self-worth dimensions, using Harter's Self-Perception Profile for Children (Harter 1985).

Sharp (1996) reported that pupils who had high self-esteem were as likely to have experienced bullying as those with low self-esteem. But pupils with low self-esteem reported more extensive bullying. The study was conducted at two secondary schools in England, and it comprised 377 pupils aged 11 to 12 years who answered questionnaires anonymously.

So far, then, it seems to be established that the victims of bullying are below average on both general and "pupil" self esteem. The strength of this connection between being bullied and self-esteem differs between investigations, but the general impression is that the relation is not very strong.

Problems of causality become evident in connection with the self esteem of the victims of bullying. To be a victim of bullying is to be evaluated in a negative way, over and over again. It is not difficult to imagine that the victims may gradually come to believe what is said about them, both directly and indirectly. But this negative effect of being bullied, may also be modified by cognitive processes and response styles on the part of the victim (Sharp 1996). However, it is also questioned whether negative self-esteem may escalate the amount of bullying one is exposed to (Sharp 1996).

As for the bullies, Mykletun (1979) in the study described above, reported that general self esteem was found to be average, whereas "pupil self esteem" was found to be significantly below average. Olweus (1974) stated that bullies in Investigation I were found to have a lower self esteem than the well functioning boys. This was in accordance with both the mothers' and the boys' understanding.

Björkquist et al. (1982) did not find any difference between bullies and the control group as regards their self-evaluation of intelligence. Neither did they find any on depression. They did find that bullies regarded themselves as more dominant than the control group, and also that they tended to regard dominance as an ideal, to a substantially higher degree than both victims and the control group. Bullies also rated themselves higher on impulsiveness than the control group did. However, Björkquist et al. used the concept "self esteem" without analysing how different items were inter-related, and also without an analysis of some normative aspects of their concept. It is possible, for instance, to argue that a high score on dominance need not be an indicator of a "good" self esteem.

In the study of 8-9 year old children reported by Boulton and Smith (1994), no statistically significant difference was found between bullies' global self-perception and that of victims

or non-involved children. However, bullies did report a slightly higher global self-perception than victims did, and a slightly lower global self-perception than non-involved children. The behavioural self-perception of bullies was found to be lower than that of victims and non-involved children, but this was also not a significant difference. Bullies scored higher than both victims and non-involved children on their physical self-perception, but again, the difference was not statistically significant.

In general, the bullies are, according to the above, below average on "pupil" self esteem. As concerns "general self esteem", however, there is not much evidence to conclude that bullies are deviant.

According to Olweus (1978, 1979), bullying is a fairly stable activity for a particular bully. We might speculate that the dominant - submissive structure of the bully - victim relationship should thus repeatedly confirm the high status of the bully. In this way, the bully should be expected to gradually hold a higher general self esteem than other pupils who do not receive this important and repeated message of high status. Another approach, encompassing the dynamic relation between self esteem and social reference, would be to imagine bullying - at least partly - as a strategy carried out by individuals who are not necessarily low, average, or high on self esteem, but who are unstable. Due to this instability, they are more dependent on privileged positions with very clear, simple, and repeated social structures. This would be of interest to study further.

Not much is known about the relationship between self esteem and bullying for boys and girls separately. The Olweus` samples comprised boys only, and Mykletun has not reported results differentiated for gender. Sharp (1996) reports that 187 of the 11-12 year olds in her study were boys and 190 were girls, but she does not differentiate for gender in her analyses. Boulton and Smith (1994) did differentiate for gender, but found no significant main effects.

Björkquist et al. (1982, p.312), in their study of the self esteem of bullies, victims and controls, found the following:

"...it is striking how well the figures of the three different groups within one sex correspond to those in the other one. When the bully boys score high on one variable, the girl bullies almost always do the same. The same is true for the victim boys when compared with the girl victims. This indicates that the picture of a bully and the picture of a victim are similar within both boy and girl peer groups."

An interesting detail, however, is that the difference between self esteem and ideal of personal charm is greater for both victims and bullies among girls than for those groups among boys (Björkquist et al. 1982).

Popularity

Sociometric studies have been conducted to estimate the popularity in class of bullies, victims and pupils not involved in bullying. Olweus (1974) reports that victims were less popular than those not involved in bullying, whereas bullies were found to be higher on the popularity scale than victims and lower than those not involved. His sample consisted of 21 victims, 21 bullies and 60 other pupils, all boys in secondary schools in Sweden.

Ekman (1977), reporting on an investigation in secondary schools in Finland, found that victims scored lower on a popularity scale than the control group both on popularity within school and outside school. Bullies were also found to be less popular than the control group outside school, but similar to the control group for popularity within school. This was found for both genders.

The popularity of 24 bullies, 17 victims, 93 well functioning pupils, and 100 pupils in a control group, all at secondary school level in Finland, is reported by Lagerspetz et al. (1982). They found that the victims scored lower on popularity than all other groups in the sample. The bullies scored lower than the well functioning pupils and the control group.

Haselager and van Lieshout (1992) also found that victims were more likely to be rejected by peers; they were less likely to be chosen as best friends, and they were more likely to be shy and withdrawn.

All these studies demonstrated that victims were less popular than children not involved in bullying. The popularity of bullies may be close to, or a bit below average. Ekman (1977) found no significant differences between the genders concerning popularity of bullies and victims, but more research is needed.

The direction of causality is also difficult to assess. It is possible that being a victim may decrease one's popularity, but then again, being unpopular may enhance one's risk of being bullied. Bullying behaviour may be related to existing social norms among children at a school. Thus, bullies may be more popular in a setting where such behaviour is regarded as more favourable than in a setting where bullying is regarded more negatively.

The relationship between bullying and popularity may be more complex than simple estimates of mean levels reveal. The process of circularity should also be taken into consideration. In addition, estimates of popularity should be related to information on other aspects of social status and social structures, such as existing norms.

Coping style

Especially for the purpose of identifying pupils at risk of being bullied, some research has been conducted on coping style, in particular for identifying this when pupils are put under social stress.

Olweus (1978) found that adolescent boys who were persistently bullied, were regarded as more anxious and insecure than other boys. Both Perry et al. (1988) and Haselager and Van Lieshout (1992) report that frequently bullied pupils, more often than others, demonstrated signs of distress when under social pressure. Perry et al. (1988) also make the point that frequently bullied pupils were regarded by their peers as possessing limited resources to handle the stressful situation.

An investigation among more than 1,000 Norwegian eighth grade pupils (Bru et al., accepted for publication) found a strong association between children reporting being harassed at school once a week or more often and their report of having emotional and musculoskeletal complaints. Among the children who reported being harassed at least on a weekly basis (N=68), 51% reported more severe emotional or musculoskeletal complaints, whereas the corresponding percentage for the rest of the sample was 15%.

Aggression

Lagerspetz et al. (1982) investigated the connection between bullying and pupil's attitudes towards aggression. A Q-sorting technique was used, and the authors offered the following example of items included in the 15-item test:

"When someone teases me, I defend myself." (Lagerspetz et al. 1982)

Based on this example, the variable "attitude towards aggression" can be understood as the individual's tendency to react aggressively when provoked. The bullies scored substantially higher on this variable than the victims, the control group and the well functioning group did. The mean was quite similar for the other three groups. The sample included 24 bullies, 17 victims, 100 control group members and 93 in the well functioning group. Boys and girls were not differentiated.

Mykletun (1979) asked pupils about their tendency "to be irritated by stressful situations". This Norwegian sample consisted of about 900 secondary school pupils. The mean scores for victims and neutral pupils were about the same, whereas the mean score for the bullies was higher than both of the others. Gender was not an issue. To be irritated is not necessarily the same as to react aggressively, but this emotion may escalate to aggression (Dollard, Doob, Miller, Mowrer, & Sears 1939; Aronsen 1995).

Results from a Swedish sample of boys (Olweus 1974, 1978) at secondary school level (21 bullies, 21 victims and 22 well functioning boys) were not much different from those reported above. Two of the items included in the test administered were reported as being:

"I get angry with other people easily."

"If a teacher has promised we'll have some fun but then changes his mind, I protest strongly." (Olweus 1978, p.105)

The boys and their respective mothers were asked to perform a Q-sorting, the mothers on behalf of their sons. The mean score for the boys characterized as bullies was higher than the mean for the other two groups according to both self report and the mothers' reports. The victims received the lowest mean score. Olweus argues that the first of the cited items should be included in the variable "aggression" because it estimates the intensity of inner reactions. The second one concerns the boys' tendency to react with frustration (Olweus 1978, p. 104).

The above investigations seem to be concerned with anger or aggressive behaviour, in response to some kind of frustration. All three studies found that bullies tend to score high on such behaviour or impulses. Olweus found that the victims scored below the mean level for both the control group and the well functioning group, whereas victims in the Lagerspetz et al. and the Mykletun studies scored about the same as those who were not involved in bullying.

Olweus also focussed on attitudes towards physical aggression and disruptive behaviour in general. Two items are referred to:

"I think fighting is silly"

"I often think it is fun to make trouble" (Olweus 1978, p.105)

Olweus found that "the attitude of both the whipping boys and the well-adjusted boys was negative, while the bullies showed a more positive attitude" (1978, p.106). In addition to this, he found that bullies in this sample had more liberal norms towards the use of violence than did victims and pupils in the control group. This sample consisted of 10 bullies, 9 victims and 59 control pupils. All were Swedish boys at secondary school level.

Finally, two items about inhibitions towards, or control of aggression, were reported by Olweus (1978, p.105).

"If I get angry, I usually don't show it."

"I think it is better to be quiet than to make a fuss if somebody is unpleasant."

Both pupils characterized as victims and pupils in the control group were found to have a stronger control than the bullies in this sample. The sample consisted of 21 bullies, 21 victims, and 22 well-adjusted Swedish boys.

Three aspects towards attitudes of aggression are involved in the studies referred;

- a. the tendency to get angry and to react aggressively when frustrated,
- b. the tendency to find it fun or stimulating to be aggressive, and
- c. inhibitions towards acting aggressively when angry or when someone is unpleasant.

Discussing the conception of aggression, Dodge (Dodge & Coie 1987; Dodge 1991) used the term "reactive" about aggression that is caused by some frustration and accompanied by anger. This hotblooded aggression seems to us to parallel point a. above. "Proactive" aggression, on the other hand, is according to Dodge not in principle constrained by frustrating events or accompanied by angry feelings. Proactive aggression is to take the initiative to hurt somebody without being frustrated in any way by the target, or without being angry at this person. We regard point b (above) to be very close to this.

According to Dodge, bullying should predominantly be understood as a kind of proactive aggression, and he found that proactive and reactive aggression were only moderately interrelated.

When inhibition towards acting aggressively is concerned, such inhibition is related to reactive aggression in the items cited above. But there may be other, not cited items that cover inhibitions towards proactive aggression.

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Different aspects of an aggressive attitude and inhibiting tendencies are obviously estimated in the reviewed research. A more comprehensive theoretical conception and empirical estimates of such aspects of aggressive attitudes and inhibitions, related to bullying, would be of interest. This is not least because the conception of the bully as an "aggressive personality" is very predominant in much of the literature.

Also the gender aspect related to aggressive attitudes and inhibitions related to bullying should be investigated. The findings of Lagerspetz et al. (1982) above do not differentiate for gender. The authors do, however, find that "... the boys in general held more aggressive views than girls" (1982, p.50).

2.4 HOME CONDITIONS

One of the most important conclusions consistently reported from social studies may be that unfortunate home conditions seem to be related to almost all kinds of social and emotional problems among children and adolescents (Patterson, Dishion, & Bank 1984; Patterson, DeBaryshe, & Ramsey 1989; Boswell 1997).

The "family problems - personality - bullying" conception is also very prominent in the literature, and a main reference for this conception appears to be a study by Olweus (1980), which involved Swedish boys and their parents. This important study does not, however, concern bullying directly, but "interpersonal aggression", as Olweus defines it.

Results from the studies presented by Olweus (1974, 1978) indicate that bullies may have more aggressive attitudes, habits and impulses than victims and pupils not involved in bullying. They may also have fewer inhibitions towards aggressive behaviour. Olweus claims that what is concerned are relatively stable reaction tendencies or motivation systems (1977 p. 1311). And according to Olweus (1980), these tendencies or motivation systems are mainly generated from home conditions.

Olweus (1980) investigated home variables in two samples of boys. In sample one, there were 64 boys, aged 12-14. Sample two comprised 59 boys, aged 15-17. The dependent variable was "aggressive behaviour" and data concerning the boys' aggression were obtained using peer ratings. Three dimensions were combined into a composite measure of aggression: Starts Fights (physical aggression against peers), Verbal Protest (verbal aggression against teachers) and Verbal Hurt (verbal aggression against peers).

Information about family conditions was gathered through retrospective interviews with the mothers and the majority of the fathers of the boys in these samples.

The two family factors found to be most strongly connected with the boys' aggression in both samples, were the mothers' negativism towards the boys and the mothers' permissiveness of aggression on the part of the boy. But also mother's and father's use of power-assertive disciplinary methods was connected with the boys' aggression.

The causal structure between the variables was discussed by Olweus who states that the unfortunate home conditions can be regarded as causes of the boys' aggression. The total impact by the family variables, plus a minor impact from the boy's temperament, was substantial and explained about one third of the variation on aggression.

It may be necessary to compare this understanding of "interpersonal aggression" with the common understanding of bullying. In so doing, we find that a comparison is especially difficult for the first two dimensions. The tendency to start fights need not include negative behaviour directed against an individual who is unable to defend him/herself. To start fights can be understood as a general tendency to pick fights also with peers who are equally strong or able to defend themselves. The second dimension, Verbal Protest, is also problematic in regards to bullying for several reasons. First of all, it refers to a pupil-teacher and not a pupil-pupil relation. Secondly, to protest can be regarded as a reaction to some kind of injustice, which is not regarded as the central process of bullying (Olweus 1984, 1991). The third dimension, Verbal Hurt, seems to be the most relevant one. It is possible that the word "hurt" can be understood as a stronger party attacking a weaker one, which is parallel to the principle of unbalanced power found in the bully-victim relationship commonly included in a definition of bullying.

The common understanding of bullying, then, does not parallel the conception of "interpersonal aggression" as investigated by Olweus in the study cited above. But if we regard bullying as one kind of aggression (Olweus 1978; Sharp & Thompson 1994), the study cited above is highly relevant. The relationship between home conditions and bullying has, however, been studied in a more direct way.

Investigating about 200 English children, ages 8 to 11 years, Bowers, Smith, and Binney (1992) estimated the relation between cohesion and power structure of the families and the children's involvement in bullying. The Family System Test "FAST" (Gehering & Wyler 1986) was used for estimating home conditions. In this test, the children were asked to place

figures, illustrating family members, in relation to each other, and the pattern of relations was taken as an estimate of cohesion and power structure of the families.

From the sample, 20 bullies, 20 victims, 20 bully/victims, and 20 control children were selected according to peer nomination. Each subgroup contained 14-18 boys, and 2-6 girls.

The four subgroups did not differ when number of family members was concerned, but the bullies and the bully/victims were significantly more likely not to be living with their biological father. The authors draw some further preliminary conclusions. The families of the victims were not lacking in warmth, but these families seemed to be somehow over-inclusive in structure. The families of the bullies did seem to be lacking in warmth, and the structured hierarchical power relations were pronounced in addition to some members of the family seeming to be somehow marginalized. The bully/victim children were more like the bullies than the victims on family variables, but they were still defined as a distinct subgroup also on family conditions.

Except for the substantial difference between bullies and bully/victims on one side and victims and controls on the other when living with biological father was concerned, the findings in this study varied in statistical significance and substance.

The Olweus study (1980) of homeconditions and aggressiveness and the Bowers et al. study (1992) of bullying others can not be compared directly. Different methods and partly different family variables were used. But overall, the connections between family variables and aggressiveness in the Olweus study, seem to be much stronger than the connection between family variables and bullying others in the Bowers et al. study. Mainly, this seems to be confirmed by two studies conducted in Prague, comprising 11 and 12 year old boys and girls. In these studies, information about family conditions were given by the pupils (Rican, Klicperova, & Koucka 1993; Rican 1995). Also an Australian study (Rigby 1993) among 11-16 year old girls and boys confirmed that unfortunate home conditions were only moderately, but significantly, associated with bullying others. All information was given by the pupils.

Whether the mentioned difference emerges because interpersonal aggression in general is more strongly connected to home conditions than is the case for bullying, or because of different methods and family variables in the referred investigations, is difficult to say.

In recent years, there have been many studies, which support the theory, that parental attitudes, values and behaviour can influence a young person's interactions with peers. And this also includes the position as victim of bullying (Farrington 1992; Olweus 1980; Pulkinnen 1986; Rican 1995; Rican et al. 1993; Rigby 1993; Rigby & Slee 1991; Schwartz 1993). But the results concerning relationships between family variables and being bullied are not entirely consistent.

Of great importance seems to be the distinction between the majority of the victims, those who are not also bullies, and the bully/victims. A main conclusion from research concerning family variables, seems to be that the family conditions of bully/victims are unfortunate in similar ways as have been reported for bullies, but possibly to a lesser degree (Bowers et al. 1992; Schwartz 1993).

When home conditions of those victims who are not also bullies are concerned, the results are not consistent (Bowers et al. 1992; Rican 1995; Rican et al. 1993; Schwartz 1993). But there is some evidence that may indicate that the families of the non-bullying victims are over-inclusive or over-protective (Bowers et al. 1992).

Since bullying is established as one kind of interpersonal aggression, it is likely that unfortunate home conditions are connected to the tendency on the part of the child to bully others and/or also to be an aggressive victim. Also, bullying has been directly related to unfortunate home conditions. Future research should differentiate for gender and perhaps seek to provide further information on family variables that may influence the position as victim.

Socioeconomic status of parents has also been investigated as a possible influence on whether children are involved in bullying. Although the results are not quite consistent, a general conclusion seems to be that the socioeconomic status of the parents is not an important factor in predicting the children's roles as victims or bullies in Scandinavia (Olweus 1978; Roland 1980). However, as Rican et al. (1993) point out, the relation between family variables and bully/victim problems in different countries may be influenced by cultural issues.

2.5 STABILITY

In a study from the Stockholm area, Sweden, Olweus (1977) investigated the stability of aggression among two samples of boys over two periods of time. The boys in sample 1 (N=85) were rated for aggression at the end of grade 6, and again at the end of grade 7. Sample 2 (N=201) was rated for aggression at the end of grade 6, and three years later. The raters were some of the boys from the class, in general randomly chosen. About one third of the raters used in the first investigation, were also raters in the second study.

Two variables were used for aggression; tendency to start fights with peers ("start fights") and tendency to answer back and protest when a teacher criticizes him ("verbal protest"). A seven point scale, ranging from "very seldom" to "very often", was used to assess these tendencies. The raters were told to place cards with the names of the boys in class in the position they deemed most fitting on this scale. Reliability for average ratings of three raters was about .80, or slightly above in both samples and for both variables. The average ratings were converted within each class to z-scores.

The coefficients for product-moment correlations between same variables at times one and two were very high in both samples. Over a period of one year (Sample 1), the correlation for "Start fights" was .81, and for "Verbal protest" .79. The corresponding correlations for the three-year period (Sample 2) were .65 and .70.

These coefficients, calculated on z-scores at class level, demonstrate that the relative positions of the boys in class are highly stable on "start fights" and "verbal protest", and slightly higher for the one year period compared to the three year interval.

A main question, also discussed by Olweus (p.1310-12), is if this kind of stability is due to stable traits of personality, or to stability of situation. As for sample 1, all classes had new teachers in grade seven, but there were only minor changes of pupils. Eleven of the eighteen classes in sample two had moved to new school buildings, all classes had new teachers, a few pupils had left their classes, and about 12% of the pupils were new in class. Olweus concludes that, especially for sample two, this represents "a certain amount of change" (p. 1311). Also, one of the classes in sample two was split up at the beginning of grade 8, so that five of the ten boys continued in class. The stability of correlations for these five were at least as high as for the total sample. The other five boys were moved to another class, making a total number of nine boys in this class. The across- time correlations for these nine

boys were at about the same level as for those who remained in the original class, namely very high.

Olweus concluded that

“...very important determinants of the observed consistency in aggressive behavior over time are to be found in relatively stable, individual-differentiating reaction tendencies or motive systems within the boys, however conceptualized.” (p. 1311)

The stability of being a target of aggression was also investigated in the same way as for stability of aggression, which is a relative position in class. In sample 1, the correlation between being an “aggression target” in grade 6 and 7, was .59. For sample 2, representing a period of three years, this correlation for stability was .56. The stability of relative position in class for being a target of aggression was not reported for the class that was split up. Still, the correlations for stability were higher for the two “aggression” variables, than for “target of aggression”. But also for this variable, the stability was high.

In conclusion, then, the relative positions between boys in a class were highly stable over time when aggression was concerned, and this kind of stability was also high for being a target of aggression. Referring to his own investigation about stability of aggression (1977), Olweus stated:

“This finding is in good agreement with the general experience that it is difficult to reduce aggressive and antisocial behavior in preadolescent and adolescent males ... (p.1311).

It is interesting that Olweus (1991) reported a considerable short term effect of the Norwegian anti bullying campaign, initiated by the Norwegian Ministry of Education in 1983. Olweus, reporting from a Bergen sample of 42 schools, found that the reduction in children reporting “bullying others” “amounted to approximately 50% or more in most comparisons (Time 1 - Time3...)” (1991, p.438). Furthermore, he concluded that “the basic message of our findings is clear: It is definitely possible to reduce substantially bully/victim problems in school and related problem behaviors with a suitable intervention program” (1991, p.446).

Estimating effects of this campaign in a Rogaland sample of 37 schools after a period of three years, it was found that in schools that had taken the campaign seriously (n= 7), the prevalence of bullying among pupils had in fact decreased. Schools which had not taken the campaign seriously (n= 29) had experienced an increase in bullying (Roland 1989a).

These results from Norway, and promising reports from the comprehensive Sheffield Project in England (Whitney, Rivers, Smith, & Sharp 1994), somehow raise questions about the very high stability of aggressive behaviour, and also of being a target of aggression, which was reported by Olweus (1977), at least for pre-adolescent boys. However, an explanation may be that neither of the two variables estimating aggression, “start fights” and “verbal protest”, is defined in the same way as bullying commonly is. It should also be recognized that estimates of change were at school level in the three mentioned anti-bullying programs, while Olweus (1977) reported stability at an individual level.

We will come back to these anti-bullying programs below (2.7).

2.6 SCHOOL VARIABLES

2.6.1 Size of schools

Can school size predict bullying? Olweus (1978) studied 270 boys at schools ranging in size from 132 pupils to 824. His conclusion was that size of school alone is not a substantial factor in predicting the level of bullying at the different schools.

Ekman's (1977) study included three secondary schools in Finland with 65, 120 and 234 pupils. No substantial differences between these schools were found as far as the percentage of bullies and victims were concerned.

In the national investigation carried out by Olweus (1985) in Norway, and consisting of about 10% of the primary and secondary schools in the country, no significant difference between small schools with multi-age classes and larger schools with same age classes was found regarding level of bullying. This result, from such a large scale investigation, is important. One problem, however, is that both the size and type of school (multi-age classes and same age classes) vary at the same time. Due to this, it is difficult to estimate the effect of school size on the level of bullying. Another problem is that schools with multi-age classes tend to be located mainly in rural areas (Olweus 1985).

The Janus Project investigated a representative sample of primary and secondary schools in Rogaland county, Norway, consisting of about 5,000 pupils at 37 schools. No significant connection between school size and bullying was found (Roland 1989b). In fact, a weak negative correlation between school size and bullying was observed.

In a study conducted in Spain (da Fonseca et al. 1989), no systematic connection between size of school and bullying was found.

In 1989, O'Moore reviewed several studies conducted in the British Isles, and from this, it is difficult to find any systematic connection between school size and bullying. And in a fairly recent, and large scale study, Whitney and Smith (1993) found that school size was not linked with bullying in their study of over 6,700 junior, middle and secondary pupils in Sheffield, England.

In conclusion, then, the number of pupils at school does not seem to be a significant factor when prevalence of bullying is concerned.

2.6.2 Size of class

The relationship between size of class and bullying has also been investigated by several researchers. Based on an analysis of 22 classes ranging from 19-30 pupils per class, Olweus (1978) found differences between classes on prevalence of bullying, but he was unable to find that class size would predict extent of bullying. He is careful to point out that the size of the classes in his sample only varies from moderate to large. Classes smaller than 19 are not uncommon in Scandinavia, and thus this study does not attempt to say anything about an eventual connection between smaller class size and bullying.

Whitney and Smith (1993, p.18) do not find that class size is linked with bullying in their Sheffield study either. Classes in this study varied from 23 to 31 for junior/middle schools (average 27), and from 18 to 30 (average 24) for secondary schools. Whitney and Smith found that "...none of the eight correlations between bullying behaviour and class size was significant, with the exception of bullying others once a week or more for secondary schools (1993, p. 18)." This showed a significant positive correlation with class size ($r = 0.62$, $p < 0.05$). This could, however, simply be a Type 2 error - i.e. due to chance sampling variation.

These two studies include classes of about the same size, all moderate to large, and their findings are largely in agreement. So far, then, we have to conclude that number of pupils in class, like number of pupils at school, does not seem to be related to prevalence of bullying, at least as far as moderately large or large classes are concerned.

2.6.3 Urbanization

Criminologists have reported that prevalence of adolescent criminal activities, including violent behaviour, is higher in cities than in rural areas (Hauge 1980; Roland 1989b), although research on behavioural and emotional responses to density is not conclusive (Geen 1990). Based on this inconclusiveness, it would be interesting, then, to investigate associations between urbanization and bullying, assuming that the amount of bullying that goes on in cities should be more than in rural areas, i.e. that bullying increases with increasing urbanization.

An investigation at 37 primary and secondary schools in Rogaland, Norway (the Janus Project), representing areas with varying degrees of urbanization, found no general connection between degree of urbanization and level of bullying (Roland 1989b). However, the percentage of pupils being excluded was substantially higher for rural areas as compared to towns and cities. The percentage of pupils involved in teasing and physical bullying was somewhat higher in towns and cities than in rural areas. This was the case for both victims and bullies (Roland 1989b). It should also be noted that due to this investigation being carried out in Norway, the population density was also low in what is considered cities. The largest city represented in this study had a population of about 90,000 in 1986.

Outside Scandinavia, the study by Whitney and Smith (1993, p.19) looked into the advantaged area - disadvantaged area dimension and found that there was "...an increased incidence of bullying problems in schools in disadvantaged areas "($p < 0.01$).

2.6.4 Inter class and inter school differences

Size of school and class does not seem to predict extent of bullying. And at least in Scandinavia, degree of urbanization does not seem to be a significant factor to predict amount of bullying.

Both Olweus (1978), Whitney and Smith (1993), and Roland (not published data) found differences between classes on amount of bullying.

An interesting finding of the Janus Project (Roland 1989b), was that the inter school difference in the amount of bullying taking place was high.

When investigating differences in prevalence of bullying others at the 37 schools, we found large inter school variation, from 1% to 10% of the pupils reporting bullying others once a week or more often. When studying results from the Janus Project concerning prevalence of being bullied, we found that although the majority of schools had prevalence between 0 - 6%, three schools reported frequencies of 11- 16%. At high school level (age 16-19), Vaaland (1994) also found substantial differences between the schools included in her study among high-school students in Norway.

Results from the Janus Project revealed great inter-school differences on the percentage of victims at both primary and secondary level. This can be regarded as an explanatory factor in understanding why several studies have published divergent results, varying from a few percent to about 20. These studies have been conducted at one or only a few schools, thus illustrating the finding of the Janus Project that there are great differences in the amount of bullying taking place from one school to another. Another reason for the differing results may of course be that the methods of investigation were not the same in all studies.

Olweus (1985, 1991) also reported that the probability of being bullied could be 4-5 times higher at some schools compared with others (Olweus 1991, p.74). He referred to bullying- or aggression enhancing factors as an explanation to why some schools had more bullying than others, thus relating bullying to home conditions such as "unfortunate child rearing methods and family problems such as alcoholism, divorce and mental problems" (Olweus 1991, pp.74-75, our translation). This may be one possible explanation of at least two. The other would be that the teachers and the school administration might make a difference (Roland 1989b; Olweus 1991; Rivers & Soutter 1996). This should be a highly relevant question for further research.

2.7 COUNTERACTING BULLYING

2.7.1 The 1983 Norwegian Campaign against Bullying

In the beginning of 1983, Norwegian mass media reported that two young people, independent of each other, had committed suicide, probably because of serious bullying (Roland 1993a). The Minister of Education announced shortly after that the Ministry would initiate a nation-wide campaign to prevent and stop bullying in Norwegian primary and secondary schools.

The design of the campaign was a program to prevent and stop bullying, and empirical research to estimate the effect of the program.

In the autumn of 1983, all primary and secondary schools in Norway received a “package” of written materials. The most important part of this was an article containing a review of empirical research and a program for preventing and managing bullying (Olweus & Roland 1983). The first part of the article about empirical research emphasized a causal structure of home conditions, personalities of pupils, and bullying. Group processes among the pupils were briefly mentioned. The second part, about prevention and management, was mainly built on the two already published books about these issues (Pikas 1976; Roland 1983). Suggestions on how to prevent bullying focussed on creating awareness of bullying and motivation to prevent it, by the use of films, role play, literature and discussions.

Also, teachers were encouraged to monitor the pupils closely during the breaks and at other times. To manage bullying, the teachers were informed about techniques to bring the problem up in a serious way with the individual bullies as a first step, and then in the group of bullies, to make them cooperative. If this cooperative approach did not succeed, sanctions should be used. Cooperation with the victim, and with the parents of the victim and the bullies was suggested.

Besides this article of about 30 pages, the package contained some other materials for the teachers and the parents. A videofilm which illustrated different kinds of bullying, and some suggestions for prevention and management were also made. This film had to be bought or rented.

The campaign received heavy exposure in Norwegian mass media, both when it was initiated in the beginning of 1983, and when it was released in the autumn of that year. It was well known, then, both among teachers, parents and probably also among many of the pupils.

A baseline investigation was conducted a short time before the schools received the package of materials for the campaign. Assisted by the Ministry's expert panel, a questionnaire for the pupils was worked out by Olweus (Olweus 1991, 1993). All primary and secondary compulsory schools in Norway received this questionnaire for the pupils grade 2-9, and a written instruction regarding the administration of the investigation. All of the about 3500 compulsory primary and secondary schools were invited to participate in the baseline investigation, and about 90% accepted. According to advice from The Norwegian Bureau of

Statistics, about 10% of the schools, comprising some 83000 pupils were chosen to make a representative sample. The data from these schools were analysed (Olweus 1985, 1991, 1993).

Follow up studies among the schools in the sample were conducted in the city of Bergen, and in Rogaland county. Each sample comprised about 40 schools.

Short term effects in Bergen

A baseline and two follow up investigations were conducted. The first follow-up took place after about one year, and the second one about two years after the release of the campaign. The key questions and the method were the same as in the baseline investigation.

The first follow up investigation was remarkably promising. The number of pupils who were bullied was reduced by about 50%. In the second follow up, the new low level of pupils being bullied persisted. We should notice, however, that between the follow up of the first and the second investigations, members of the research team in Bergen visited the schools, and reported results from the first follow up investigation, and suggested how to make progress in preventing and managing bullying (Olweus 1985, 1991, 1993).

The follow up in Rogaland

Out of the 40 schools in the original sample, 37 agreed to take part in the follow up investigation, which was conducted in October 1986. The main objective of this study was to study longer-term effects from the campaign.

The questionnaire to the pupils and the method in general was exactly the same as that of the baseline investigation of 1983. In addition, the headteachers and some teachers at each school were interviewed by members of our research team about how the campaign had been implemented. Contrary to the Bergen project, there was no intervention at the schools on the part of our research team during the period from 1983 to 1986.

The questionnaire was found to be difficult for many of the pupils in grades two and three, and we were able to present results for grade 4-9 only.

The main results from the follow up investigation three years after the campaign were not very promising. In fact, the overall result was that the level of bullying increased slightly in Rogaland during the period from 1983 to 1986. This was the case both for bullies and victims. For girls, the increase was minimal, but for boys it was substantial. The percentage

of boys who were bullied weekly or more often rose from 3.6 to 5.2, and the percentage of boys who conducted bullying weekly or more often rose from 4.1 to 5.1. This tendency was also present if we included those who were bullied or who bullied others less frequently. Information from headteachers and teachers about the implementation of the campaign demonstrated a more complex picture, however.

This information was obtained by personal and detailed interviews with the headteachers and randomly selected teachers, conducted by members of the research team. At small or middle range schools, one or two teachers were interviewed. At the big schools, three teachers were interviewed. The interviews were assessed and recoded by myself. The schools then, were given scores ranging from 1 to 4, according to how seriously the campaign had been implemented. (See Roland 1989b, 1993a for details about method and results).

The main tendency was that the rate of bullying increased at the schools that had been less involved in the campaign, while the rate decreased at the schools that had been most involved. This connection between involvement and change was almost linear, clear, but not very strong. The tendency was approximately the same for being bullied and for bullying others, and for girls and boys. At primary schools, the tendency was a bit stronger than at secondary schools.

2.7.2 The Sheffield Project

Twenty three primary and secondary schools in the Sheffield area UK, took part in this project to reduce the amount of bullying among the pupils (Whitney et al. 1994b). A baseline investigation was conducted before the schools started their work, and a follow up investigation was conducted two years later. The schools were informed about different methods to prevent and stop bullying and each school could select the approach it wanted. Then key personnel and teachers were informed about the program and selected method, and some support was offered by the project team during the project period (Boulton 1994, Cowie & Sharp 1994; Higgins 1994; Sharp & Cowie 1994; Sharp & Thompson 1994; Smith, Cowie, & Sharp 1994; Thompson & Sharp 1994).

Although bullying was not reduced in such a dramatic way as reported by Olweus from the Bergen project (Olweus 1991, 1993), the results from the Sheffield project were very promising. For primary schools, it was estimated that during the project period of two years, the amount of bullying was reduced by about 30% (Whitney et al. 1994). At secondary

schools, the reduction was more limited. The researchers also found a substantial correlation between how seriously the schools had implemented the program, and reduction in amount of bullying.

2.7.3 Discussion

It is not easy to explain why the Bergen and the Rogaland results were so different (Sharp & Thompson 1994). The methods of research were identical, and both investigations were quite large. We have no information either that the nation-wide campaign was implemented differently in Bergen and Rogaland. However, the results from Bergen were obtained one and two years after the campaign, while the investigation in Rogaland was conducted three years after the campaign was released. Also, some intervention from the researchers did occur in Bergen between the two follow up investigations.

Anyway, a main conclusion is a dramatic overall decrease of bullying in the Bergen schools, and a substantial positive effect in Rogaland at the schools that implemented the campaign seriously.

The preventive focus of the campaign was mainly to encourage the teachers to monitor the pupils closely during the breaks and otherwise, and to make the pupils more conscious about bullying, and more motivated not to take part in bullying.

The focus of intervention was, as a first step, to work in a rather insisting way, with the bullies. If this approach was not successful, it was recommended to use sanctions. The preventative approach could be called a bullying focused program, of which the general method was to illustrate bullying by use of films, role play, literature etc., and to reason and discuss with the pupils about bullying.

The extensive Sheffield Project was also in many ways a bullying focused program, and several methods to prevent and stop bullying were available to the schools. But very interestingly, the program also included a whole-school policy element to prevent and counteract bullying (Sharp & Thompson 1994; Thompson & Sharp 1994). The results, especially at primary level, were very promising.

The results reported from the three described programs were not identical, but the main conclusion is that bullying can be reduced in a substantial way by implementing an anti-

bullying program. This conclusion is important, as it strongly indicates that school and class level variables are involved in the dynamics and amount of bullying.

Conclusions from several small scale programs seem to be the same, although not all are evaluated in a systematic way (Ross 1996).

2.8 CONCLUDING REMARKS

During a period of more than 20 years, a considerable number of empirical studies of bullying among children and adolescents have been conducted. The first ones took place in the Scandinavian countries and Finland, but especially since about 1990, research on bullying has gradually become an international concern.

Among most researchers today, there seems to be a fairly common understanding of bullying as longstanding and repeated negative behaviour, physical or mental, which is directed towards a person who is not quite able to respond in an adequate way. A definition, or explanation, of bullying is commonly presented to pupils or others, who are invited by researchers to give information. Another important aspect, especially if prevalence of bullying is estimated, is the question of regularity. How frequent the incidents must have happened before a pupil is considered a bully or a victim, will strongly influence the estimate of prevalence in a study.

If a frequency of "weekly or more often" is used as a cut-off point, about 5% of the pupils, in primary and secondary school are victims of bullying. The prevalence decreases fairly steadily with increasing age, at least in primary school. The prevalence of bullies is also about 5%, and this percentage is more or less stable during primary and secondary school. As the number of studies with fairly standardized definitions and methods has increased, especially in Scandinavia and in the British Isles, the sameness of prevalence is more pronounced than the differences from country to country. Also, in several other industrialized countries, bullying is obviously a problem among children and adolescents, but the scale of the problem at a national level is not established to the same degree as in the Nordic countries and the Great Britain.

Almost as many girls as boys are victimized, but significantly more boys than girls bully others.

Besides estimating prevalence of bullying, much of the research has been concentrated on individual characteristics by comparing bullies and victims with controls. Surprising to many, physical appearance does not seem to differentiate victims or bullies from controls in any important way. But boy victims are on average, physically weaker than controls, and boy bullies are probably stronger than control pupils. The victims tend to be below normal on academic ability, and also on intelligence, while bullies are normal or slightly below. On self esteem, the victims score below control pupils, while the bullies seem to be about average. There may however, be aspects of self esteem that are related to bullying others. The victims are not only low on self esteem, but also more nervous and socially insecure than controls. This does not seem to be the case for bullies. Otherwise, bullies score above average on aggressive attitudes, and below average on inhibitions towards aggressive behaviour, whereas the victims have an opposite profile.

Besides such personality variables, the popularity of the pupils involved and not involved in bullying has been estimated. Victims have been found to be below average on popularity, while bullies are average, or slightly below.

Unfortunate home conditions are related to interpersonal aggression to a substantial degree, and very likely also to bullying others. The home conditions of the victims may be somewhat overprotective, but the empirical evidence is rather weak.

Several researchers have not differentiated their results according to gender, and one important study only comprised boys (Olweus 1978).

The short-term effects of being bullied are negative feelings and social anxiety. Long term effects may be more severe psychosocial disturbances. Cognitive processes and coping style when put under stress will probably modify short-, and long-term effects. As for bullies, short-term effects are not established.

A causal chain consisting of home problems, aggressive personality and aggressive behaviour seems to be established, and a somewhat parallel conception of constraints of bullying others is possible. In general, the problem of causality is recognized, especially when features of the victims are concerned.

The prevalence of bullying does not seem to be constrained by degree of urbanization, at least not in Scandinavia. Unfortunate living conditions seem to increase the prevalence of

bullying, however. The size of school and class have little or no influence on the prevalence of bullying.

But schools and classes may differ significantly from each other on amount of bullying. An important conclusion from large scale anti-bullying programs, is that bullying can be reduced. This conclusion indicates that school and class level variables are involved in the dynamics and amount of bullying. More research is needed on the important issue of differences between schools and classes.

Chapter 2 has reviewed empirical results, but we have also from time to time touched on theoretical reasoning. As we now move on by reviewing theoretical approaches to bullying, it will be recognized that empirical research has been much more prevalent than theory building within our research tradition, and that empirical research and theoretical approaches are not often closely related.

PART THREE: THEORETICAL PERSPECTIVES ON BULLYING

3. Chapter three: Interactions between Bullies, Victims and Bystanders

3.1 INTRODUCTION

Although bullying has been a topic of scientific interest for almost 30 years, this field of research can hardly be characterized as being especially theory focused. Rather, our research tradition has predominantly been empirical and concentrated on identifying bullies and victims, and by portraying their personalities, social status and home conditions. To some degree, this empirical research has been guided by theory. Also, different theoretical approaches have emerged, without any empirical testing of the theory in question. In the following, we will attempt a review of the theory that is available on bullying.

Tracing theoretical roots and developments in the field of research on bullying in school, will naturally bring us back to Heinemann's pioneering work. This work is interesting, as it brings up the fundamental question about bullying as a reactive kind of aggression or as an initiating kind of negative behaviour.

3.2 BULLYING AS REACTIVE OR PROACTIVE AGGRESSION

As our review of previous research has demonstrated, bullying is commonly regarded as a particular kind of aggressive behaviour. And as Dodge (1991) has pointed out, the two dominant theoretical approaches to aggression, have been to regard it as either reactive or proactive behaviour. This also seems to be the case when bullying is concerned.

Reactive aggression, sometimes also called affective aggression, is regarded as behaviour that is accompanied by anger against the target. This kind of aggression is well illustrated by the classical frustration-aggression theory put forward by Dollard et al. (1939). In principle, this theory holds that aggression is a reaction to some kind of frustration. Important in this theory, is the understanding that this aggressive reaction is accompanied by a special drive, understood as an angry and hostile feeling, directed against the source of the frustration, or

substitutes (Dollard et al. 1939). The aggressive act is a hot-blooded, angry attack on a target which is perceived as a source of, or associated with the unpleasant feeling. The aggressive behaviour is thus a reaction to a frustrating event (Dollard et al. 1939; Buss 1961, 1971; Feshbach 1970; Dodge 1991). This is why reactive aggression is a commonly used term for this kind of negative behaviour towards a target.

Proactive aggression, on the other hand, is commonly described as a cold-blooded, negative behaviour towards a target, to gain some reward. This kind of aggression, often also called instrumental aggression, has a very prominent place in social learning theory. In this theory, proactive aggression is regarded as learned instrumental behaviour (Bandura 1977). The rewards of proactive aggression could be object acquisition, a preferable social position, or some satisfaction by observing the target suffers (Bandura 1977; Berkowitz 1993; Buss 1961, 1971; Dodge 1991; Feshbach 1970). The latter of these rewards, satisfaction from observing the target suffering, is obviously some kind of emotion. But it is not an unpleasant feeling of anger, as with reactive aggression. Rather, it is understood as a positive emotional state, some kind of emotional payoff. However, proactive aggression may be accompanied by negative emotions, and reactive aggression may partly be instrumental to gain material or social rewards (Buss 1971; Dodge 1991).

It would be of great importance to question whether bullying should be regarded as a kind of reactive or proactive aggression, as these two kinds of aggression are probably constrained by different motive systems, and because reactive and proactive aggression are only moderately correlated kinds of behaviour (Dodge 1991; Roland 1993b).

Correlates of reactive and proactive aggression

Neurological research indicates that different parts of the central nervous system seem to be activated, according to whether the ongoing aggressive behaviour is predominantly reactive or proactive (Dodge 1991).

The processing of information is also somewhat different for those high on reactive compared with those high on proactive aggression. High rates of reactive aggression are related to perceiving social signs as threatening and/or hostile, while high rates of proactive aggression do not correlate with these ways of attributing social signs. On the other hand, those high on proactive aggression, expect positive payoff from acting aggressively (Dodge 1991; Dodge & Coie 1987).

Furthermore, individuals high on reactive aggression, are commonly also high on anxiety, and irritability, while highly proactively aggressive individuals seem to be average on both those two estimates.

Also social correlates of the different kinds of aggression seem to be well documented, as individuals high on reactive aggression are commonly well below average on popularity, while those high on proactive aggression are about average on this variable (Dodge 1991).

Finally, both reactive and proactive aggression are hypothesized to be related to unfortunate home conditions, but to somewhat differing family variables. Individuals who often demonstrate reactive aggression, are hypothesized to have been brought up within a family of insecure relationships, emotional deprivation, or abuse of different kinds. On the other hand, individuals chronic on proactive aggression are suspected to have a family background of demonstrated aggression, and positive outcomes of such behaviour (Dodge 1991). This may be a reasonable hypothesis, but we are not aware that it has been tested.

It seems to be well documented, then, that reactive and proactive aggression are to some degree different kinds of behaviour, with partly different correlates. This is not to say that one and the same individual may not demonstrate both kinds of aggression over time. But the two tendencies do not seem to be highly correlated.

Whether bullying is understood as predominantly a reactive or a proactive kind of aggressive behaviour seems to be of great importance both for ethical, theoretical and practical reasons.

3.2.1 Heinemann's Reacting Hypothesis

In his pioneering book on "mobbing" among humans, Heinemann (1973) theorized about some dynamics of bullying. Very simply, his hypothesis states that bullying is stimulated by the victim him/herself. The victim behaves in such a way that the other children are irritated and react to this behaviour by attacking the irritating peer.

Heinemann states that the main explanation of bullying is that a group of pupils is disturbed by a single and often deviant pupil, so that the harmony within the group is lost. The tension, which is created in this way, will be unpleasant to the group members, and the group will turn against the deviant pupil. This "all-against-one-attack", will somehow re-establish the harmony or balance within the group. So, when the attack is completed, the

bullies will again take their roles as ordinary members of an ordinary group. These groups described by Heinemann are often rather large, comprising ten members or more.

It becomes apparent through this description of Heinemann's reasoning, that Heinemann (1973) has not only borrowed the term "mobbing" from Lorenz (1968), but also in principle the way Lorenz explains mobbing among animals, mainly birds. It is not the personalities of the bullies that escalate bullying, but some group processes caused by the victim.

The evidence for this hypothesis is not very strong, at least when mobbing or bullying among humans is concerned. Heinemann builds on observations in some Swedish school yards, but these observations do not seem to be of any systematic character (pp. 11-14). The victims of bullying have, according to research conducted so far, been described as insecure, isolated pupils with a low self esteem. This, of course, does not exclude the possibility of irritating or disturbing activities on the part of the victims, or some of them. But it does not seem very reasonable to think that this is their general way of behaving. This, however, is a question for empirical research.

Also, Heinemann's conception of the group of bullies is interesting. Firstly, he regards the bullies as "ordinary" individuals, without any particular distractions. This is hardly valid, as has been demonstrated by our review of research. Also, bullying seems to be quite a stable activity, mainly conducted by some pupils and not by others. This may of course partly be so because of social roles. However, individuality does seem to count.

Secondly, Heinemann believes that the normal condition of the group is a state of harmony or equilibrium. This normality may, however, be disturbed, and the system will use some energy to bring itself back to the normal equilibrium. This way of conceiving social systems is obviously deeply rooted and also controversial in philosophy and the social sciences (Stinchcombe 1968; Berger, Eyre, & Zelditch 1989). And when bullying is concerned, no empirical evidence has been presented to document the dynamic of equilibrium and tension suggested by Heinemann.

Nevertheless, the theorizing of Heinemann is interesting, as it draws attention to important theoretical dimensions. One of these is the question whether bullying is reactive or proactive behaviour on the part of the bullies. Another important issue is the personality-group dimension. And as has been demonstrated, Heinemann's theorizing is very clearly a group-reactive position.

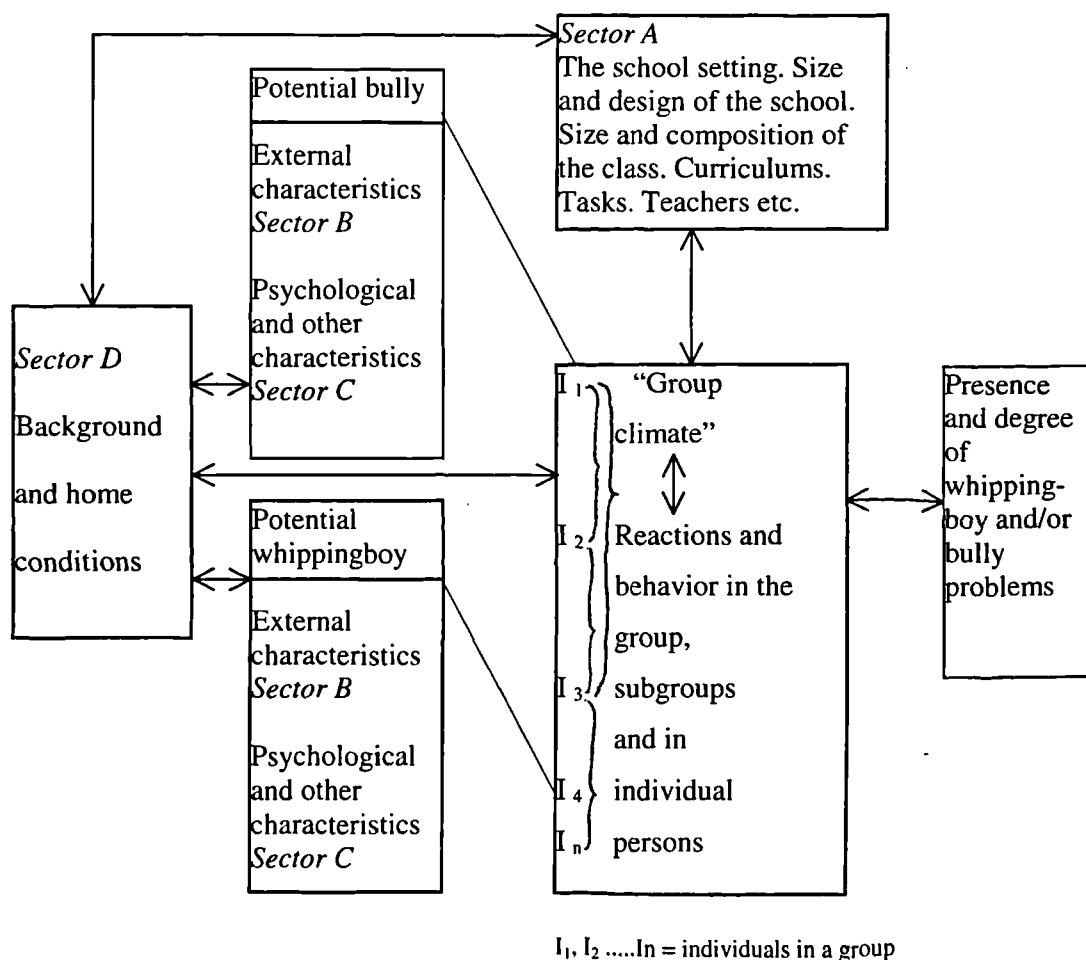
In many ways, Olweus (1978, 1991, 1993) has taken quite an opposite position, by predominantly regarding bullying as a personality based, proactive kind of aggression.

3.2.2 Olweus' "theory sketch"

Olweus' "theory sketch" is an identification of some main factors that separately, or in combination, could constrain bully/victim problems.

This "theory sketch", or model, was first published in Swedish, and in English some years later (1978). We think it is fair to say that this model has been the reference for most of Olweus's research since then (Olweus 1991, 1993). An explanation of his model follows:

Figure 3.1 Theory sketch of factors of potential significance for whipping boy and/or bully problems



(Olweus 1978, p. 12)

“Presence and degree of whipping boy/or bully problems”, is regarded as the dependent variable.

A box in the centre of the model illustrates the group climate, plus individual pupils in a class, and their reaction patterns as individuals, in sub-groups or groups. Olweus has conducted some research on “the group climate” in class, but he was not able to find any *substantial relationships between bullying and his estimates of group climate*. Patterns of reactions will be touched on below when we cite Olweus on “group dynamics”.

Factors of different kinds may influence these reaction patterns and the group climate, and affect the amount of bully/victim problems in class. Such factors are organized within the model in four sectors; A, B, C and D.

Sector A: The school setting

This refers to size and design of the school, size and composition of the class and curricula, tasks, and teachers. In his own research, Olweus has been interested in whether size, defined by number of pupils at the school, is related to prevalence of bully/victim problems. He concluded, on the basis of empirical evidence, that size of school was not a factor of significance for the degree of the problem. But this is of course not to say that size of school should be regarded as irrelevant when some dynamics of bullying are concerned. Further, it should be noticed that aspects of social interaction at school level, is not considered in the model.

When size of class is concerned, Olweus concluded that this factor was not a significant one, according to empirical evidence. Curricula, tasks, and teachers are also included in the model. But Olweus has not so far considered such factors as particularly important constraints on bullying (Olweus 1978, 1984).

Sector B: External characteristics (of potential bullies and victims)

Olweus has persistently been concerned with the rather popular opinion, that being a victim is caused by external deviance. Referring to his own data on boys, he has concluded that for example obesity, physical handicaps, different dialect or clothing are of *minor interest*, as to who will become a victim of bullying. The same conclusion is made for bullies. However, the boys who were victimized, were physically weaker than normal, while the bullies were stronger (Olweus 1978, 1991).

Sector C: Psychological and other characteristics (of potential bullies and victims)

A main interest of Olweus, is the personalities of bullies and the victims. When bullies are concerned, Olweus has concluded that these pupils are characterized by strong aggressive tendencies and weak control of these tendencies, when they are activated (1978, 1991).

Olweus has also sometimes argued that the bullies are distinguished by an aggressive personality pattern (Olweus 1991). Concerning attitudes, Olweus finds the bullies are more positive to violence and violent means than normal. Important also, is that the bullies are characterized by strong needs for self-assertion and dominance, according to Olweus (1978, 1991). Finally, Olweus also concludes that the self-esteem of the bullies is about normal, and he makes the point that the bullies are not insecure under a tough surface (Olweus 1978, 1991).

In many ways, Olweus describes the victims quite differently from the bullies. They are somewhat below average on school achievement; they are anxious, insecure, isolated, and they possess low self-esteem. Both in behaviour and attitudes, they are non-aggressive, and in this way similar to pupils not involved in bullying. But this similarity is only superficial according to Olweus, because the non-aggressive behaviour is mainly determined by fear or incapability in aggression related situations (Olweus 1984, p.62).

Sector D: Background and home conditions

Central to Olweus's understanding of bullying, is the importance of the family conditions. And in particular, Olweus has been interested in family conditions that are related to being aggressive towards others. Mother's negativism towards the child, mother's and father's use of power-assertive methods of discipline, and mother's permissiveness for aggression are emphasised as main influences for being aggressive towards others (Olweus 1980, 1991). Olweus argues that victims may have a family background of closer relationships than controls and bullies, but that this closeness may not necessarily be positive for the child. Instead, the closeness could be of an over-protecting kind on the part of the parents (Olweus 1984).

Socio-economic status of the parents is not connected with the status as bully or victim, according to Olweus (1991).

The main conclusion put forward by Olweus (1978, 1984, 1991) is that unfortunate home conditions create particular reaction tendencies, or personality traits "within" some pupils, which make them "potential bullies". Some pupils may also be "potential whipping boys",

because they predominantly appear as insecure and weak students. This potential for being a victim may be related to some kind of overprotection on the part of the parents.

Within a class, Olweus states (1974, 1978) there may be

- ? no potential bullies, and no potential victims
- ? no potential bullies, but potential victims
- ? potential bullies, but no potential victims
- ? potential bullies, and potential victims

Mainly, it is the combination of “potential bullies “ and “potential whipping boys” within the same class at school, that provokes bullying and group processes related to this, according to Olweus (1974, 1978).

Compared to Heinemann (1973), Olweus understands the provocative role of the victim in quite a different way. While Heinemann states that the victim provokes bullying by being irritating to the bullies, Olweus understands the position of the victim more as forced submissiveness, that satisfies the bully`s ambition of being dominating (1991).

But Olweus is also careful to state that a minority of the victims appears to demonstrate an irritating behaviour that may provoke some pupils to bully them (Olweus 1978). Such provocative victims may also bully others; these are the so-called bully/victims (Olweus 1991).

An important question is whether bullying of such provocative victims should be defined as reactive bullying, accompanied by emotions as anger on the part of the bullies. This is possible, but not necessarily always the case. It is not unlikely that “potential bullies” simply may define some inadequate behaviour as provocative, and use this as an excuse to bully a pupil who demonstrates this behaviour.

It seems clear that Olweus predominantly regards bullying as a kind of proactive aggression. The tendency to demonstrate this kind of behaviour is rather stable, and mainly due to motivation systems of the bullies. These traits of personality have to a significant degree emerged from some unfortunate family conditions. At a given time, such pupils are more or less stimulated to bully other children, according to the presence of convenient targets. The targets may be pupils who demonstrate anxiety, helplessness and submissiveness when provoked. Somehow, such tendencies on the part of the potential victims may be related to overprotection at home (Olweus 1978).

This concept of bullying is obviously built on the solid empirical evidence obtained by Olweus himself, as we have described. And to a considerable degree, these empirical results have been confirmed by other research. A slightly controversial exception to this, seems to be the self-esteem of the bullies, which Olweus claims to be "normal" (see Chapter 2).

Another controversy, as we see it, is the empirical evidence for the central argument of Olweus, that particular home conditions influence bullying. As Olweus predominantly regards bullying as a kind of proactive aggression, it is problematic that the established relation between such home conditions and aggression on the part of the boy is based on an estimate that obviously comprises both proactive and reactive aggression, and, furthermore, that the targets of aggression in his investigation are both pupils and teacher (Olweus 1980). This is not to say that we dispute the findings of a somewhat stable tendency to bully other pupils being influenced by home conditions.

3.3 BULLYING AS GROUP DYNAMICS

The hierarchical aspect of groups has been central for some researchers. This structural aspect, then, is believed to explain group processes relevant to bullying. The explanations are, however, very different.

Hohr, a Norwegian researcher, writes:

"Bullying presupposes, and is carried out, within a hierarchical power structure composed of one - two - three distinct leaders, followed by adjutants, helpers, outsiders and finally, victims at the bottom of the social ladder" (1983, p.331, our translation from Norwegian).

By this, Hohr states that the described hierarchical power system exists when bullying is going on, and he also presupposes a defined system of roles within this system. The concept of hierarchy, then, is connected to an understanding of different functions within this structure.

But the statement cited should also be regarded as an understanding of causes for the behaviour, because Hohr says that bullying is presupposed by the structure. This reasoning about causes is not clear, however. One way to understand the statement, is that the hierarchy is a suitable structure or instrument for the behaviour, but that this behaviour is caused by something else that has nothing to do with the structure of the group. Another

alternative is that it is the power structure itself, which generates the bullying. In this case, it is important to know if this structure is present both when the bullying is going on, and in general, or in one of the cases.

No empirical evidence is presented as for the existence of such a hierarchical power based system, and the statement is not discussed in a theoretical way.

Olweus (1978, p.144) also seems to regard the group of bullies as a hierarchical structured system:

"..., the bully often has a few relatively close friends who are under his influence-who perhaps have the same tendencies as himself, though less pronounced. It is not difficult for the bully to set these boys against the whipping boy".

But in contrast to Hohn, Olweus sees the personalities of the bullies as the main cause of bullying. The boss-bullies are at the top of the pyramid, and they will influence those in lower positions, who may also have aggressive personalities.

It is possible of course, that all this is true. However, no empirical evidence concerning such interactions between the bullies is reported. It is not clear either, if the structural features of the group refer to the social pattern when bullying takes part, in general, or both.

Ekman (1976) connects structure, processes and bullying in quite another and opposite way. The author believes the group has a centre - periphery structure, and that the central individuals have access to relevant information about group norms, while the peripheral ones have not. Because of this, the peripheral individuals have to guess and make mistakes. So called fictive norms will be the case for these individuals, then, and these false beliefs about group norms will be more radical or antisocial than what is really the case in the centre of the group. It is not the top dogs, then, but the marginal ones that mainly will be the bullies.

Also when this theory is concerned, the common problem of reference to situation exists. It is not specified whether the social pattern and social processes in question are present when bullying is going on, or in general. And no direct empirical evidence for this theory is presented. According to several studies, however, bullies seem to be about normal on popularity, or only slightly below. This does not make it reasonable to suppose that the worst bullies should be marginal in class.

Olweus has several times, but briefly, touched upon other aspects of group processes that are assumed to operate when bullying is going on (1978, 1994). These processes concern "(a) social "contagion," (b) weakening of the control or inhibitions against aggressive tendencies, (c) diffusion of responsibility, and (d) gradual cognitive changes in the perceptions of bullying and of the victim" (1991, p. 426).

In conclusion, then, the important topic of group structures, and processes of bullying has been described in very different and contrary ways. Little or no empirical evidence for the different descriptions has been reported, and the conceptualization of structures, processes and bullying is not clear. The main theoretical problem seems to be that structures and processes have not been defined according to situation. The described patterns may be general, momentary as part of bullying when this interaction takes part, or both.

And except for Ekman (1976), the social significance of other individuals than bullies and the victim is mainly not brought up. It is likely, however, that relations between these individuals and others, for example class mates, count (Roland 1993a; Thompson & Sharp 1994). To study attitudes and norms held by pupils in general, is one way to approach the influence of other pupils.

3.4 *ATTITUDES AND NORMS*

According to Olweus, bullies are less sympathetic to the victims than other children, and he regards this attitude as part of the personality pattern of the bully that at least partly explains the tendency to bully others (1978, 1984, 1991).

The question of bullying related attitudes among pupils in general, has been investigated by Rigby and Slee (1993). Two samples of Australian pupils, aged 6-16 years and aged 11-18 years answered questionnaires about their attitudes related to bullying. Being predominantly an empirical investigation, the study is of theoretical relevance especially because of the way the authors relate their results to group norms.

Three aspects of a bullying related attitude were identified; "(i) a tendency to reject weak children, (ii) an approval of bullying behaviour, and (iii) support for victims." (p.128)

One of the main conclusions from this study was that some 15-20% of the pupils tended to hold pro bullying attitudes, a somewhat larger group were unsure of their attitudes, and the

rest held anti bullying attitudes (p.128). When commenting on this main conclusion, the authors drew the attention to the potential of anti bullying attitudes among a great number of the pupils (p.135). This of course, is to highlight the significance of “the others”.

Another, and most interesting conclusion, is that the anti bullying attitudes declined steadily with age until about age 15 both for boys and girls. For girls, this level at age 15 was about the same at age 16-18. For boys, however, anti bullying attitudes increased from age 16 to age 18. The overall tendency was, however, that girls held a more antibullying attitude than boys.

Rigby and Slee make an important point by relating the decreasing anti bullying attitude until age 15, to previous research that concludes that children’s capacity to be empathetic increases during the same period of age as the anti bullying attitude decreases, according to their own data. The authors do not make any strong objection to the established conclusion about increasing capacity with age to be empathetic. But the paradox between decreasing anti bullying attitudes and increasing capacity to being empathetic is discussed by relating attitudes to social norms. They suggest that the attitude of the individual pupil is somehow coloured by what the pupil believes is the group norm. And this norm, for some reason or another, may be increasingly pro bullying up to about age 15, especially for boys. This, they think, could explain the curvilinear connection between age and anti bullying attitudes for boys (1993).

Thus, Rigby and Slee contribute to the theoretical understanding of bullying in two ways. The significance of social norms in the group or class is assumed to be central for understanding dynamics of bullying. And also, they suggest that content and significance of such norms may be different according to gender and age of the pupils.

3.5 CONCLUSIONS

The conventional conceptualization of negative home conditions - personality - bullying seems to have support, at least in relation to bullies. The relation between negative home conditions and bullying does not, however, seem to be very strong, but more research is needed on this important issue.

As for personalities of the pupils involved in bullying, a valid conclusion seems to be that bullies and victims are generally different, and that both groups are different from pupils not involved in bullying. These results are not quite consistent, however, and significant

differences are not always strong. Bully/victims seem to be more like the conventional bullies than the conventional victims.

Differences between schools and classes in amount of bullying seem to be so great, and effects of anti-bullying programs so promising, that there are good reasons to assume that school, -and class level variables are involved in the dynamics and the amount of bullying. Since degree of urbanization, and size of school and class do not seem to be of great importance for the amount of bullying, there may still be ample grounds to assume that social process variables within the school and classroom are involved.

When dynamics of bullying are concerned, the reaction hypothesis is strongly questioned as a general explanation. Although direct empirical evidence concerning interactions in bullying are almost completely missing, information about the personalities and coping tendencies of bullies and victims indicate indirectly, but strongly, that bullying is mainly a kind of proactive aggression. Some victims may, however, be irritating to the bullies.

As we regard bullying as mainly a proactive, but sometimes also a reactive kind of negative behaviour directed against a victim which is probably influenced by social variables at school and class level, our main interest is to identify such variables and relate them to amount of bullying at school and class level.

3.6 *MAIN RESEARCH QUESTION: SOCIAL STRUCTURE AND INTERACTIONS INVOLVED IN BULLYING*

Several researchers have been concerned about group aspects related to bullying as we have seen, but it is not always clear what is meant by this group aspect. Probably, we are dealing with the classical structure-interaction problem (Stinchcombe 1968; Berger et al. 1989).

In cases when bullying is conducted by several pupils together, "the group" may be defined as the interacting bullies, when the bullying is going on. Also, the victim could be included in this way of conceiving group aspects of bullying.

Another alternative could be to regard for example the class as "the group", and analyse social aspects of this unit. If we take this approach, which we think is reasonable, we could in a more systematic way relate social aspects of class to the prevalence and interactions involved in bullying.

By making this analytical distinction, we could regard the classroom as a social structure, and bullying as a specific kind of interaction that is related to the structure of the classroom (Roland 1993a). In this way, we could make classroom level analyses of how social structures may influence bullying. And in the same way, social structures at school level could be related to bullying. A main reason for this approach is that classes and schools sometimes have proved to be different or very different in prevalence of bullying, as our review has demonstrated. And we suspect that such substantial differences are not completely determined by different degrees of family problems of the pupils in different classes and schools.

To investigate general social structures at school and class level, and relate estimates of such structures to school and class level estimates of bullying, will be our main concern in the next chapters.

In our concluding chapter, we will return to the question of interactions between bullies and a victim, and relate a theoretical understanding of this particular kind of interaction to our results concerning social structure at school and within class.

PART FOUR: SCHOOL AND CLASSROOM

4. Chapter four: The Primary School and the School Classroom as Preventative or Aggravating Factors in Bullying

4.1 INTRODUCTION

From an educational point of view, the possible influence of school and school class on bullying is important. The review of literature demonstrated that size of school and class are of very little importance to the amount of bullying. On the other hand, schools and classes differ in the amount of bullying, and differences between schools do not seem to be dependent on degree of urbanization, at least in Norway.

A possible explanation for the differences is that pupils in schools and classes high on bullying may come from less fortunate homes than pupils in schools and classes low on bullying. Another possibility may be that social processes within the school and class contribute to the differences.

Surprisingly, empirical research about social processes within the school and classroom that may influence bullying among pupils is almost completely missing (Chp. two and three). But many research programs have been conducted to investigate the influence of school and class on learning outcome and aspects of behaviour of the pupils. This research includes school effectiveness and school improvement studies.

4.1.1 Effectiveness and Improvement

School effectiveness studies are concerned with how and to what degree school facilities may influence learning outcomes and behaviour of the pupils, while school improvement studies try to uncover how schools may become better. Of course, these perspectives are not exactly the same, but they have much in common when theoretical approaches are concerned. However, the two traditions seem to have been rather separate up till recently (Chrispeels 1992; Reynolds, Sammons, Stoll, Barber, & Hillman 1996; Townsend 1996). The beginning merger of the two traditions is promising, as it should be convenient to combine the more sophisticated statistical models often used in school effectiveness studies

with theories and empirical data concerning change, which are more typical of the school improvement tradition (see Gray, Jesson, Goldstein, Hedger, & Rasbash 1995).

A starting question, then, is to ask how relevant this research could be to identify variables that may predict bullying at school level and classroom level.

4.1.2 Relevance of Effectiveness and Improvement Studies

Bullying is one aspect of deviant behaviour. Hence, schools and classes with low rates of disruptive or deviant behaviour, and generally positive relationships between pupils and between teachers and pupils, may be expected to have low rates of bullying. It follows that schools and classes with high rates of disruptive behaviour may be expected to have high rates of bullying. The empirical evidence for such relationships between different kinds of deviant behaviour and bullying is limited, however.

In a Norwegian study, it was found that to bully others was significantly related to other behavioural problems such as disruptive behaviour, vandalism, use of drugs and truancy (Roland, unpublished data).

How bullying may be related to pupils' behaviour at school and class level, is not clear. However, there is indirect evidence for such a relationship. At school level, Olweus (1991, 1993) has reported that an anti-bullying program reduced bullying as well as other kinds of antisocial behaviour in his sample of about 40 schools, which indicates that different kinds of behavioural problems, including bullying, are interrelated at school level.

The majority of school effectiveness studies have concerned different kinds of pupils' learning outcomes. And often, performance in one or two subjects, or a composite estimate of different kinds of learning outcomes has been reported (Gray et al. 1995). This makes it difficult to conclude very precisely whether differences between schools and classes on one kind of pupil performance also exist for performance in other subjects, and how school and class facilities are connected with different kinds of learning outcomes. However, the empirical evidence for concluding that certain school and class facilities are connected with several kinds of pupils' learning outcome seems to be established (see Sammons, Mortimore, & Thomas 1996; Teddlie & Springfield 1993).

A most interesting issue for our review of literature is the relationship between academic and social outcomes.

Rutter, Maughan, Mortimore, and Ouston (1979), reporting on stability of differences between schools during four years, noticed a fairly strong positive relationship between estimates of different kinds of pupils' performance and behaviour. The best schools, then, tended to be good on all measures, while the worst schools tended to be rather bad on all measures during the period. This relationship is also reported by several other researchers (see Fry 1987; Teddlie & Stringfield 1993).

The relationships between academic and social outcomes are not entirely clear, however. Although there have been reports of good social outcomes but poor academic ones at unit level, the reverse appears to be very rare (Galloway 1983; Galloway, Rogers, Armstrong, & Leo 1998; Rutter et al. 1979; Sammons et al. 1996). In other words, positive social behaviour may be a necessary but not sufficient condition for good academic outcomes. It follows that in looking at characteristics of schools and classes with good academic outcomes we may learn something useful about social characteristics which inhibit or encourage bullying.

In conclusion, then, there seem to be reasons for looking at school level and classroom level variables that are related to pupils' behaviour and to academic outcomes in order to identify relevant variables for our own investigation.

4.1.3 School and classroom level effects

Particularly in school effectiveness research, and also in school improvement studies, there is today a strong concern for multi-level analyses of schools' impact on students. Much school effectiveness and school improvement research has been criticized for not making clear distinctions between levels of the school as an organization, when influences on the pupils are being analyzed. Very often, teacher-pupil interactions, and other typical classroom activities have been reported as school level variables, in the same way as headteacher-staff interactions (Gray et al. 1995).

Another criticism is that much of the school effectiveness and class effectiveness studies have been conducted within two theoretical traditions rather isolated from each other, which

of course makes it difficult to conceptualize how the two levels may be related (Teddle & Stringfield 1993).

As several researchers concerned with multi-level approaches have argued, this lack of a clear conception of schools as multi-level organizations, makes it difficult to estimate what it is about schools that makes them different (Creemers & Reezigt 1996; Fisher & Fraser 1991; Gray et al. 1995; Hargreaves 1995; Hill & Rowe 1996; Hofman 1995; Reynolds et al. 1996; Rosenholtz 1991; Teddle & Stringfield 1993).

A multi-level approach is needed not only to identify different social systems or facilities at a school, but to show how these systems are interrelated. Besides the individual pupil, it is common to identify two different levels within the school as an organization; the class level and the school level. When social interactions are concerned, then, the school level is understood as the headteacher-staff interactions, while the class level is comprised of teacher-pupils interactions (Gray et al. 1995; Creemers & Reezigt 1996). In addition, a department level has also been identified as significant in secondary schools and high schools (Smith & Tomlinson 1989).

At least in Norway, departments are not present at primary level, and we will consequently be concerned with the class level and the school level, and how interactions at these two levels may be related to bullying among the pupils.

In the first place, we will concentrate on the main school level factors that have been identified as important for why schools differ on pupils' performance and behaviour.

5. Chapter five: School Management as a Preventative or Aggravating Factor in Bullying

5.1 INTRODUCTION

The interest in the quality of schools is not restricted to this decade or to our century (see Brubacher 1966 for a detailed review). In former days, this interest was mostly concentrated on curriculum and methods of teaching. Great educators recommended different kinds of curriculum and methods of teaching, and some of them established schools to realize their ideas. But the scientific tools to evaluate the results were not available. Yet, the great pioneers were optimistic, and so were their followers. There was hardly a doubt that school mattered (Mortimore 1996).

This general optimism was seriously challenged, not least by sociologists. References to research conveying a more pessimistic stand concerning the influence of schools were various. One important movement was the emerging tradition of criminology, in the beginning led by the so-called Chicago School. Some very influential studies, published by researchers working at, or related to the University of Chicago, helped to create a new climate for understanding criminality (Korbin 1961; Shaw 1930; Shaw & McKay 1942). The common conception of the criminal as a defective personality was replaced by sociological theories emphasizing the influence of society. It was possible to document that the rate of different kinds of criminal behaviour among young people, was strongly related to positions within social structures and to social structure itself. Sociolinguistic studies, not least the work of Bernstein (1961), emphasized the importance of pupil background to explain differences between pupils at school. And finally, research within the tradition of educational sociology, especially two well known studies from USA (Coleman, Campell, Hobson, McPartland, Mood, Weinfield, & York 1966; Jencks, Smith, Acland, Bane, Cohen, Gintis, Heyns, & Michelson 1972), concluded that schools did not matter very much relative to the influence of society and family, and a pupil's position within this social structure. Parallel to the growing popularity of sociology, social psychology began to influence the understanding of schools, but mainly when class level interactions was concerned (Hollander 1976; Schmuck & Schmuck 1977).

It was not until about 1980, that the formal and informal organization of schools really caught the attention of researchers. The work of Rutter et al. (1979), and Brookover, Beady,

Flood, Schweitzer & Wisenbaker (1979) seem to be milestones for this emerging research and interest in general. It was possible from these reports to conclude very clearly that schools differed on both pupils' academic progress and behaviour, and that these differences to a great degree were influenced by social factors at school. In the 1980's, several important studies mainly confirmed and supplemented these results (Galloway, Ball, Blomfield, & Seyd 1982; Mortimore, Sammons, Stoll, Lewis, & Ecob 1988).

That school matters, is today the general conclusion of a large number of studies, and the conclusion seems to be valid both for pupils' academic progress and for different kinds of behavioural problems (Smith & Tomlinson 1989; Frude 1992; Teddlie & Stringfield 1993; Gray et al. 1995).

In the two pioneering studies of Rutter et al. (1979) and Brookover et al. (1979) these differences between schools were related to a wide range of different kinds of school level variables, and several of these were in a significant way connected with school differences on pupils' academic progress and/or behaviour.

Several of the studies mentioned above concentrated mainly on analyses of relationships between single school level variables and school differences on learning outcome and behaviour. These analyses, and the conclusions about connections between pairs of variables, are obviously important.

Interesting, also, is that some researchers tried to generalize their results, to conceive of the school as an organization, and to discuss causality. Rutter et al. (1979) and Mortimore et al. (1988) are examples of this.

Most interesting in the Rutter et al. study, was that the association between the combined estimates of social variables at school and each of the outcome variables was much stronger than any of the relations between estimates of single social variables and outcome variables. The authors suggest that the reason for this is that some cumulative effect emerges from different aspects of social behaviour, which they call the ethos of school.

Rutter et al., then, introduce the concept of ethos to make an abstraction of the many specific results. Very generally, the ethos of a school is defined as its characteristics as a social organisation (p.184).

Parallel to what we could call positive ethos, Mortimore et al. (1988) use the term “positive climate”. This factor is described in broad terms, including friendliness between teachers and pupils, and between the pupils. At effective schools, the teachers were enthusiastic, they were often engaged in friendly small talk with the pupils, and in lunchtime or out of school activities with the pupils (p.255).

In recent years, this interest in central school level variables, and how they may be connected to each other and to pupils’ behaviour and performance, has increased. This perspective has recently also been adopted in some anti-bullying programs (Thompson & Sharp 1994), but there appears to be no direct empirical evidence so far about the relation between social school level variables and bullying.

5.2 *CENTRAL SCHOOL LEVEL VARIABLES*

The number of studies concerning school effectiveness and school improvement is great, and so is the number of school level variables that have been related to several different estimates of pupils’ performance and behaviour. Therefore, our aim is not to give a full review of this research literature. As the field has matured, there seems to be a clear tendency to cluster sub groups of single variables, and also to construct theoretical models comprising main school level factors (Cheng 1996; Chrispeels 1992; Reynolds et al. 1996; Rosenholtz 1991). And clearly, some key factors in effectiveness at school-level have emerged (Reynolds et al. 1996). Mainly, it is these broad conclusions that will be reviewed. Not surprisingly, one school level factor that is consistently emphasized, is the leadership of the headteacher.

5.2.1 Leadership

The very nature of a formally organized hierarchy, seems to be that the importance of decisions and behaviour in general made by its members, increases with increasing level of formal position of these members. The policy on the part of the formal leader, then, has the greatest impact on the organization (Bryman 1996; Hollander 1976; Nye & Simonetta 1996).

And when schools are concerned, the significance of the headteacher is reported in the majority of the studies of school effectiveness and school improvement (Chrispeels 1992;

Galloway 1983; Mortimore et al. 1988; Roland 1989b; Rosenholtz 1991; Rutter et al. 1979; Wimpelberg 1993).

Some key dimensions seem to constitute good leadership at school:

Purposefulness. Successful headteachers seem to be purposeful, as a general style. They are willing and able to formulate goals and means to achieve these goals, to make decisions and to organize work at the school level (Mortimore et al. 1988; Wimpelberg 1993).

This general conclusion about the benefit of purposefulness of the leader must however be understood according to what kind of organization one talks about. A broad conclusion from management and organizational research is that successful leaders are able to understand how detailed and specific they should be when they assert their leadership, and that organizations with well educated personnel working with complicated issues seem to benefit mostly from leaders who are concerned with central and somewhat general issues, and not so much with details (Chrispells 1992). Chrispells calls this style transitional leadership, which in general means that the leader is concerned with communication and mutual learning between members of the organization.

As teachers are well educated and working with highly complicated matters in their classrooms and with parents, it is not surprising that headteachers at good schools in general are found not only to be purposeful, but also involving and delegating.

Involvement and delegation. To involve the staff in decision making and to delegate the legal right to make decisions is not exactly the same. But the two aspects of leadership may be closely interrelated, as we regard involvement in decision making as an aspect of delegation.

A conclusion in several studies, is that involvement of the deputy head and teachers in decision making, and delegation of the right to make formal and informal decisions, are related to successful schools as measured by pupils' learning progress and/or behaviour (Mortimore et al. 1988; Chrispells 1992).

There could be several reasons for this. The quality of decisions could be better, if the staff is involved in preparing and making them. It is also likely that teachers will be more committed to decisions that they have been involved in preparing and / or making. It is even possible that teachers regard an involving and delegating style of the principal as deserving

respect, which may improve personal relationships with the head teacher and also inspire them to do a good job. On the other hand, there is also good evidence for concluding that successful organizations, also schools, have leaders who demonstrate a high profile in decision making (Fullan & Newton 1988).

These conclusions may be regarded as contrasting. Gray (1990), however, makes the point that it is often some combination of high profile aspects of management and parallel aspects of delegation that characterizes successful organizations. This phenomenon is also discussed by others (Chrispells 1992; Fullan & Newton 1988; Mortimore et al. 1988; Wimpelberg 1993).

Classroom oriented. A main conclusion from school effectiveness and school improvement research is that effective headteachers are involved and concerned about the speciality of schools: classroom policy and teaching (Teddle & Stringfield 1993; Wimpelberg 1993).

Successful headteachers seem to be involved in classroom matters, and teachers' interactions with the parents. An explanation for this may be that concern and competence in the profession of teaching makes it easier for the head to relate teaching policy to other issues at school, and thus make the whole school a consistent organization (Cheng 1996). Headteachers concerned about and competent in the profession of teaching are probably also in a good position to advise and assist those teachers who need it, and to initiate and influence mutual learning about professional matters between teachers (Chrispells 1992).

Support. At good schools, headteachers are supportive and understanding towards the teachers, according to several studies of school effectiveness and school improvement (see Fullan 1992; Munthe 1997).

Support may be given both when private matters are concerned, and about all kinds of professional questions. Naturally, support may be given as a response when teachers ask for it, or when a teacher otherwise is open about a question or a problem. But headteachers may also be supportive by taking the initiative. Furthermore, to be supportive in a way that teachers want, the headteacher must probably also be regarded as understanding.

It is not surprising that such a personal concern by the headteacher towards the individual teacher goes with successful schools. By being concerned in this way, the principal will be able to help teachers, and this may improve the teachers' ability to do a better job. This concern for the teachers will increase their loyalty towards their headteacher, and by this

make it easier for him or her to assert leadership. Caring headteachers will also have much more access to vital information than indifferent ones, so as to influence the school in a wise way.

We regard headteachers' style of leadership as a central aspect of school level issues, with obvious relevance for headteacher - teachers interactions. Another important school level variable is professional cooperation between teachers.

5.2.2 Professional cooperation

Cooperation on professional issues may concern rather practical matters. But cooperation as a means to enhance mutual learning among teachers, has also been referred to in the research literature.

Several studies of school effectiveness and school improvement have been concerned with cooperation between teachers. And almost consistently, the results have demonstrated that successful schools are more likely than others to have teachers who collaborate on professional matters, both when practical matters are concerned and in learning from each other (Chrispells 1992; Rosenholtz 1991).

During the school day, teachers see each other frequently, but they may still be lonely or isolated when professional matters are concerned. There has obviously been a long tradition of this (Little 1990; Lortie 1975). It may have something to do with a conventional conception of teaching as a profession that is conducted in a closed classroom. At least in Norway, there may have been historical reasons for such a way of regarding the profession of teaching, as most teachers worked alone in small one-classroom schools.

Rosenholtz (1991) investigated 78 primary schools in five rural and three urban/suburban districts in Tennessee, USA, and her observations are illuminating. At successful schools, teachers helped each other in many different ways, and they also organized this collaboration. At other schools, teachers prepared their own lessons without discussing with others, and they tried to tackle problems on their own. She also observed that schools were very different on how eager teachers were to learn and improve as professionals. At successful schools, teachers were open to ask for advice, to share ideas, to observe each other and to give feedback in a constructive way. At less successful schools, teachers tended

to regard mutual learning more as a burden and even a threat. And not surprisingly, practical cooperation and willingness to learn from each other were highly interrelated.

The same general conclusions have been reported by other researchers concerned with school effectiveness and school improvement (Chrispells 1992; Little 1990; Lortie 1975).

Teachers may benefit from practical collaboration with colleagues, because such a collaboration simply is effective in getting things done. They may learn from it also. However, it is likely that there is a cultural distinction between the intention to collaborate to get things done, and the intention to interact to learn from each other. Also, the learning effect may be different. It is not unlikely that interactions explicitly designed to contribute to mutual learning, are more theory or principle related than practical cooperation. And hence, the learning effects from intended learning sessions between colleagues may be more accumulative than incidental learning from cooperating to get things done (Handal 1991; Munthe 1997).

In any case, it is not very surprising that practical cooperation and interaction to learn from each other are observed to be interrelated, because both kinds of collaboration probably reflect some openness and trust in each other. And very likely, the two kinds of collaboration will to some degree influence each other.

The benefits are likely to be identified at teacher level, as the teachers will save time through avoidance of duplication of effort by helping each other, and because they will be improving as professionals by learning from other teachers. Pupils may also recognize that teachers are able to collaborate, which may by itself have a positive impact on both learning and behaviour.

There are also good reasons to suggest that interactions about professional matters may influence degree of consensus between teachers (Munthe 1997; Rosenholtz 1991).

5.2.3 Consensus and consistency

Agreement on beliefs and ways to act have been addressed in much of the research literature on school effectiveness and school improvement. Certainly, differing concepts have been used, but consensus and consistency are probably most common. We will understand consensus as agreement about goals and common practice on methods, and consistency as

the level of consensus about different issues such as goals and means within an organization.

A broad conclusion from school effectiveness and school improvement research is that successful schools are characterized by consensus within staff, and consistency between different aspects of consensus (Chrispells 1992; Mortimore et al. 1988; Rosenholtz 1991).

Certainly, the context of schools is not the same in all countries concerning autonomy of the school, and it is possible that consensus and consistency will vary with degree of freedom for the individual school from one country to another, and that sameness will be more vital in some school systems and cultures than in others. However, the broad conclusion referred to above seems to be valid in several countries (Mortimore et al. 1988; Rosenholtz 1991).

Schools may benefit from consensus simply because endless arguing about goals and means is time consuming. But we could also make an opposite point, by arguing that at low consensus schools, the teachers are probably relatively isolated from each other when professional matters are concerned, because it is too dangerous to discuss such issues. It may produce so much misunderstanding and frustration that it is simply avoided (Hargreaves 1994)

It seems likely that low consensus will sometimes bring about endless arguing and other times very little professional interaction. And if so, it will restrict the teachers from helping each other and learning from each other.

An important question is whether it is the consensus itself that makes a school successful, or whether it matters what one agrees on. This question also concerns the problem of consistency of agreements on different issues. Rosenholtz (1991) has addressed these questions, arguing that consensus schools tended to make pupils' learning of basic skills their central task.

“Student mastery of basic skills appeared the common factor that united them, the force that welded all the separate autonomous teachers into one common voice.” (p.207)

It is interesting, then, to notice that Mortimore et al. (1988) reported that a “narrow” (p.224) focus on basic skill learning by headteachers was negatively connected with several success criteria at the schools (p.235).

It seems to us that Mortimore et al., and Rosenholtz talk about different matters, when focusing on basic skill learning. For Mortimore et al., it is the head teacher's emphasis on basic skill learning that is estimated and related to pupils' progress, while Rosenholtz is concerned about consensus among the staff on this matter.

Aware of the many and very different opinions about school goals that exist within a society, and a plurality of opinions that may confuse members of the school, Rosenholtz argues that shared opinions about something that appears to be central or vital, will be the point of reference that make other aspects of the organization logical to its members. This could be other goals, means, symbols and also what kind of information is relevant and not relevant.

It is not unlikely that consensus is important regardless of what one agrees on. But it is also quite possible that agreement on some goals and means on the part of the teachers, is better for the pupils than consensus about other goals and means, simply because some standards are good and some are not (Hargreaves 1995). But an even more interesting question, is whether agreement on particular issues could generate agreement on others. Obviously, this must be an important question for those involved in school improvement research and practice. For us, a main question will be whether consensus on different matters is consistent and related to school level estimates on bullying. And of course, we will also address the interrelation between school level variables and bullying.

5.2.4 Interrelations between school level variables

As the tradition of school effectiveness and school improvement research has moved forward, researchers have been concerned with clustering single school level variables into broader factors, and our intention has been to identify such central variables and to briefly discuss them. Also, parallel to this tendency to cluster single variables into broader factors, there are attempts to relate these factors to each other with theoretical models (Cheng 1996; Chrispeels 1992; Reynolds et al. 1996; Rosenholtz 1991).

A very consistent conclusion from studies, in which the data have been obtained at one point of time, is that structured interactions between staff, and consensus about goals and means are interrelated in a substantial way. Especially within both traditions of school effectiveness and school improvement research, it is also a common conclusion that this interrelation reflects a consensus about how school variables influence each other (Chrispeels 1992; Rosenholtz 1991).

Ways of understanding organizations in this manner, includes versions of system theory which are concerned with the ongoing interactions between elements in a defined system, for example a school (Buckley 1967; Cartwright & Harary 1956; Joas 1987; Newcomb 1953, 1959, 1961, 1971), and open systems theory which also concerns the surroundings of the system (Chrispells 1992; Oyserman & Packer 1996). This important aspect of the school's context, and interactions between context variables and school level variables have been discussed and estimated in an extensive study by Teddlie and Stringfield (1993).

An intricate issue within systems theory is whether everything influences everything to the same degree, or if some aspects are more important than others. In principle, this is the question about causal direction.

There are different principles for regarding one factor as more important than others. Rosenholtz's (1991) focus on consensus about pupils mastering of basic skills, is an example of such principles. The two principles she combines are volume and simplicity. Teachers spend a lot of time on preparing and teaching basic skills, and consequently, this topic is important. She also argues that the value of, for example, reading, writing and math is easily understood, and this simplicity helps to unite the staff. Another such principle, that is very common, is to give causal priority to matters as they appear in time (Olweus 1980; Oyserman & Packer 1996). Furthermore, for a defined system, a formal hierarchy is often used as a reference, as matters at the top of the pyramid may influence the organization most (Nye & Simonetta 1996; Parsons 1951; Weber 1975).

We will return to these questions about interrelations between bullying and other school level and classroom level variables. When doing this, the principles of time and hierarchical organization mentioned above, will be recognized.

5.3 A MAIN RESEARCH QUESTION

How school level interactions are related to bullying among the pupils is not known. But from a large number of school effectiveness and school improvement studies, some broad school level factors are repeatedly identified as related to pupils' performance and behaviour. We are not in a position to be definitive about the relationships between different pupil learning outcomes and aspects of their behaviour, nor about the relationship between school level factors and such different aspects of learning outcome and behaviour. But in

general, the empirical evidence supports a conclusion that some broad school level factors are related to both pupils' learning outcome and pupil behaviour.

If pupils behave well in the classroom, there will be more time on task, and better learning outcomes. It is not unlikely either, that if the pupils recognize that they learn and make progress, they will be motivated to concentrate on school activities and not on misbehaviour in the classroom. Within the classroom, both context for learning and behaviour are very much under the direct influence of the teacher, and a relation between pupils' classroom behaviour and learning outcome could be expected. If our implicit assumption is that teachers' behaviour in the classroom is influenced by headteacher-staff interaction, these school level variables should be related to both pupils' learning outcomes and their classroom behaviour in an indirect way. And of course, there may also be a direct impact from headteacher-staff interaction on pupils' learning outcomes and classroom behaviour.

The majority of bullying between pupils does not, however, take place in the classroom, but during the breaks and out of sight of teachers (Roland 1983). Bullying, then, is much more remote from direct teacher-pupil interaction and teacher control than learning activities and classroom behaviour. Consequently, this hidden kind of pupil-pupil interaction may not in the same way as teacher-pupil related activities be influenced by headteacher-staff interaction directly, or via teachers' behaviour in the classroom. Whether the school level variables we have reviewed are related to school level estimates of bullying, is a major research question for this thesis.

Hence, we must now describe the variables for our own investigation.

5.4 *SELECTED SCHOOL LEVEL VARIABLES*

5.4.1 Leadership by the headteacher (Leadership)

How satisfied or dissatisfied the teachers at a particular school are with headteachers' work as a leader, is likely to be a good estimate of how able the headteacher is in managing the school (Nye & Simonetta 1996). As our aim is to obtain a broad measure of the headteacher's leadership, the teachers' perceptions of headteacher's leadership is expected to give an adequate estimate.

Leadership is a question of interaction, and what is effective at one school, may not be that effective at another (Bryman 1996). On the other hand, our review of school effectiveness and school improvement literature has demonstrated that successful headteachers have something in common. They are concerned about some fundamental needs of an organization, such as making decisions and organizing at school level, and some degree of freedom for the individual teacher. They also understand the core activities of the teachers, and they support them when needed. And finally, successful headteachers are able to maintain good relations with the individual teacher. We will be interested in how the teachers at the school feel about their headteacher when such fundamental questions are concerned.

Decision making and organization: We regard decision making and organisation to enable implementation of school policy, as two central and interrelated aspects of general management at school, and which in addition also concern the purposefulness of the headteachers. We have learned from previous research that successful headteachers are both able to make decisions, and to create order in getting work done. And consequently, we will have to regard these aspects when we estimate headteachers' work.

Our intention is not, as mentioned above, to investigate for example how purposeful or defensive a headteacher is on these more general aspects of management, but rather to ask how satisfied the teachers are with the headteacher when these aspects are concerned.

Delegation: According to our review of previous research, successful headteachers delegate to some degree. A measure of this aspect will be secured through questions answered by teachers on how they perceive their headteacher's work.

Again, we will not ask how much the headteacher delegates, nor the kind of issues that teachers are allowed to decide. Instead, the teachers will be asked to evaluate their headteacher's style of delegation.

Understanding and support: We have previously seen that the headteachers' understanding of the professional work of the teachers and support for them when needed, have been identified as important for being a successful headteacher. Questions on this will also be included as we ask teachers how satisfied they are with their headteacher.

Relations with headteacher: Although not quite as common as the previously mentioned aspects of leadership, teachers' relations with the headteacher have also been identified as

significant. How the teachers regard their own personal relationships with the headteacher, then, will be the last aspect of leadership we will investigate. ”

5.4.2 Professional cooperation

Cooperation between teachers may be practical such as helping each other with planning lessons, or giving each other information about pupils and classes, and we will be interested in to what degree teachers collaborate on such practical matters.

Teachers may also learn from such practical collaboration. But we will also be interested in whether the school possesses systems particularly designed for improving the quality of school and for mutual learning between teachers.

Four variables concerning professional cooperation are selected. The first three are discussed by Dalin and Rolft (1993).

Cooperative planning work. At some schools, teachers may be isolated from each other when teaching is concerned. They may plan and conduct their own lessons, and there may be little or no exchange of information about pupils and classes. On the other hand, at a practical level, teachers may help each other with planning, they may coordinate the lessons in different subjects, and provide each other with information about pupils and classes (Dalin & Rolft 1993, p.150). This practical cooperation in teaching, will be one interest of ours.

Project groups. We will define teacher projects as developing and implementing better ways of teaching, for instance where a few teachers work together to improve some aspect of teaching. The results may be introduced to other teachers. Project groups, then, could be regarded as an interesting estimate of the schools' willingness to learn (Dalin & Rolft 1993, p.150).

Peer Supervision. According to Dalin and Rolft, the "...distinction between supervision and peer supervision reflects the distinction between hierarchical position in power and horizontal positions within an organization,..." (1993, p.151).

Peer supervision, then, is according to Dalin and Rolft

"...a partnership between two or more colleagues,...that have the following tasks:

- *to systematically control one's own work;
- *to get ideas from others for one's own work;
- *to learn from observation and discussion of others' work;
- *to learn by giving other people advice."

This work between colleagues could be organized in different ways, of course. But the principle is that individual teachers have regular meetings to discuss cases and/or general matters. This method is beginning to be implemented at some schools in Norway (Munthe 1997). The presence of such systems will indicate if the school has formalized procedures of learning.

According to the main idea expressed in most peer supervision models (Munthe 1997), the teacher has to verbalize a case or a general issue in a way that the other teachers can understand. This will force the teacher to systematize the case or the general question, and the teacher may benefit from doing this. Also the teacher will benefit from answering questions from the other teachers, and from listening to opinions or advice. Each of the other teachers will probably also learn from listening to the case or the general question presented by the colleague, and from hearing the opinions of the others. Also, they will benefit by being active, asking questions, giving advice, etc. But even more important, collective competence may emerge from such discussions. To present a case or a question, or to give advice in an understandable way, the teacher has to understand the perspectives of the others, at least to a minimum degree. This sharing of perspectives may contribute to a common approach to teaching.

In-service teaching. During in-service days, teachers may attend courses arranged by others. This may be the whole staff, or one or more from a staff. Also, an external expert may come to the school and give a lecture. This system for receiving input is mandatory in primary schools in Norway.

Some in-service days are used for activities and planning at the school where the teachers are employed. Teachers who have attended a course outside school may report back to their colleagues, or not. Teachers may also give lectures to each other about books they have

read, or about some practical ideas they have tested in class etc. This system of lecturing each other may be different from school to school.

In the same way as project groups and peer supervision within the staff, in-service teaching is regarded as an interesting estimate of the schools' willingness to learn. And in much the same way as project groups and peer supervision, in-service teaching may generate different kinds of competence within the school.

As the four variables mentioned above are regarded as aspects of Professional Cooperation, we expect them to be interrelated.

5.4.3 Consensus

In most school effectiveness and school improvement studies, consensus has been recognized as a characteristic of successful schools. And it is shared beliefs in goals and means that have been most commonly identified as critical. Consensus about goals and means seems to be interrelated, and a major question, not least within school improvement research, is whether shared perspectives on goals constrains consensus about means, or vice versa. Another controversy is whether it is the existence of consensus that makes schools successful, regardless of what one agrees on, or whether it is consensus about specific goals and means that counts.

We are not in a position to investigate these controversies. Our interest will be whether the existence of consensus among staff about goals and means of achieving them are related to school level estimates of bullying.

6. Chapter six: The Primary School Classroom as a Preventative or Aggravating Factor in Bullying

6.1 INTRODUCTION

Within the traditions of school effectiveness and school improvement research, a broad conclusion is that social variables at school make a difference for both pupil learning outcomes and behaviour. And as the field has moved forward, it has also been possible to be more specific about what it is within schools that makes a difference. The distinction between school level and class level variables is very important for this question.

In fact, class level variables normally predict as much or more of the differences between schools than school level variables do, when pupils' progress and behaviour is concerned (Teddle & Springfield 1993). However, school level variables may also influence pupil performance and behaviour in an indirect way, via their impact on class level variables.

Classroom research emerged as an important aspect of social psychology more than sixty years ago. Studies of small groups and leadership related to such groups has been central within this tradition, and classes and teachers have received much attention (Cartwright & Zander 1969; Johnson 1970; Lewin, Lippit, & White 1939; Schmuck & Schmuck 1977).

Also psychological theories have had a great impact on research concerning teacher-pupil and pupil-pupil interactions. This is the case for psychodynamic theory, humanistic theory, cognitive theory and behaviouristic theory (Jones 1986; Rogers 1951; Steinberg 1986).

And finally, it should be mentioned that different didactic frameworks have been in use as part of classroom research, especially to discuss pupils' learning activities (Gundem 1991).

The interrelated traditions of school effectiveness and school improvement research have since their beginning some 20 years ago, consistently been concerned with class level variables, although these variables were not often clearly separated from school level factors, as we have mentioned before (Gray et al. 1995). As Teddle and Springfield (1993) have pointed out, specialists on school level research have often overlooked classroom level effects, while classroom level researchers often have been rather ignorant about the context of class. However, especially since the late 1980's, it has been more common to separate

school and class level variables to analyze separate and joint effects from variables at these two levels of the school as an organization. Theories concerning management, organization, and innovation have been the main frameworks for these studies (Rosenholtz 1991; Tattum 1986; Teddlie & Stringfield 1993).

6.2 *CONTEXT, CONCEPTS AND APPROACHES*

We will concentrate on both structured interactions between teacher and pupils, and on structured pupil - pupil interactions, and we will discuss the possible impact of these two kinds of interactions on the amount of bullying at class level.

6.2.1 A context

First and foremost, we recognize that the class is a formal group, that the pupils very often are members of this formal group for a period of several years, and that they are forced to be part of it. Furthermore, the class is a sub unit within a school. The class has a context, then, to which the structured interactions within the class should be related. This context defines standards of classroom life, and it is the formal leader of the class, the teacher, who is responsible for these standards.

The formal aspect of the class does not make informal relations irrelevant, but it does make it necessary to address the productive aspect of life in class, namely the processes of learning. Since membership of a class lasts for several years, at least in Norway, informal relations and learning activities will be structured, just as social norms related to classroom activities are structured.

This sub unit of the school, which is often very stable, is led by the teacher, who should represent given standards of classroom life. These standards consist both of informal relations between the members of the group and of educational activities. Moreover, there is both a preventative perspective and a problem solving perspective to address.

In the same way as for school level variables, we are not aiming at a full review of class level research, but rather to concentrate on some concepts and class level variables that have proved to be significant.

6.2.2 The informal-formal dimension

As Hargreaves (1995) has pointed out, a common conception of groups has been to ask whether the interactions within the group are primarily concentrated on satisfying the expressive needs of the members, or if the interactions are predominantly instrumental as to achieve some other goals, for example to improve the ability to read and write. He calls these two aspects of group life the “expressive-social cohesion domain” and the “instrumental-social control domain” respectively (p.26). These concepts are close to the classical “basic interaction modes” suggested by Parsons (1951), and also to the concepts of ideographic and nomothetic aspects of groups (Getzels & Thelen 1960). Ideographic aspects of groups concern informal relations between the members, which may also include bullying. Nomothetic aspects, on the other hand, concern task related work.

This conception of types of interactions between pupils has also been linked to leadership of the class, as one asks whether the teacher is focused on improving cohesion between the pupils, or on influencing task activities, and what effects these two foci have on pupil behaviour (Doyle & Carter 1987; Hargreaves 1995; Schmuck & Schmuck 1977).

Another question related to the behaviour of the pupils, is the prevention-intervention dimension of teachers’ management of the class.

6.2.3 The prevention-intervention dimension

From about 1970, important reports from classroom research have effectively highlighted the relation between prevention and intervention in teachers’ leadership of the class.

Kounin (1970) observed classes where pupils worked smoothly, and classes with much disruptive behaviour on the part of the pupils. He and his colleagues compared how teachers in these two kinds of classes responded to disruptive behaviour. Surprisingly, no systematic difference was found between teachers in the two different kinds of classrooms on how teachers responded to misbehaviour. A further analysis of the data demonstrated, however, that the teachers in the two different kinds of classes behaved differently prior to pupil misbehaviour. The successful teachers used different methods of organization and interaction with the pupils. According to the authors, this prevented disruptive behaviour. In general, these results were confirmed by Brophy and Evertson (1976), observing 59 teachers over a period of two years.

Emmer, Evertson, and Anderson (1980), took this principle a step further, by observing 28 third-grade classes during the first weeks of school. An important result, obtained a few weeks after the start of the school year, was that teachers in the best functioning classes, had paid great attention to planning and organizing the class at the beginning of the year. They had explained in a clear way what was expected from the pupils, they had monitored them carefully, and retaught behaviours that were not mastered. Also, these teachers made clear the consequences of misbehaviour, and they applied these consequences consistently.

Two important conclusions, then, should be recognized. Firstly, that successful and not successful teachers responded in the same way when problems appeared. Secondly, that the differences between the two kinds of teachers were found in the way they interacted with the pupils when problems did not exist. The conclusions from all the three reports, then, are that successful teachers prevented problems by what they did when problems did not exist. Similar results are reported by several others (Doyle & Carter 1987; Durlak 1995; Smith, C. J. 1992).

6.2.4 A Systems Perspective

The central principle within such theoretical frameworks, is the understanding that interactions are influenced by a relatively stable social structure. The preventative perspective for the teacher, then, is to understand the meaning and functions of structure, and to implement it in class. It is also important for the teacher to understand that social structure of class is context related, depending at least on the school and the school system (Durlak 1995; Galloway et al. 1982; Tattum 1986; Thompson & Sharp 1994).

Consequently, this understanding defines the teacher as the leader or manager of a class, while recognizing that the class is a sub unit of a larger organization. The mission of a teacher is multidimensional, then, as all kinds of leadership are. The multidimensional approach is logical since an organization is comprised of different elements or dimensions that are interrelated. This systems perspective also means that one aspect of an organization may be changed by changes in another part of it (Berger et al. 1989; Newcomb 1961, 1971).

It is also common, as part of a systems perspective, to regard prevention and problem solving as mutually dependent on each other (Bowers 1986; Kounin 1970; Smith, C. J. 1992). And finally, cohesion and on task activities are often mentioned as positively

interrelated aspects of the class as an organization (Doyle & Carter 1987; Teddlie & Stringfield 1993). Very roughly, we could say that the understanding of “A versus B”, is replaced by an understanding that A and B mutually influence each other.

Concepts from social psychology and social anthropology, such as informal and formal relations, rituals, norms and culture, are part of the framework (Morland, Argote, & Krishnan 1996; Rommetveit 1953; Smith, C. J. 1992). Management and organizational theories are also central (Nye & Simonetta 1996). We should also mention that humanistic psychology seems to have an explanatory role when the aspect of teacher-pupil relations are concerned (Teddlie & Stringfield 1993), and that behaviour modification techniques have been adopted to some degree when style of intervention is discussed within this tradition (Smith, C. J. 1992). Especially recent school effectiveness and school improvement research is strongly influenced by such concepts and theories (Teddlie & Stringfield 1993).

Such a systems perspective on teacher effectiveness brings up several questions when bullying is investigated. One of these is the connection between problem solving and prevention. As we have discussed in chapter two, anti-bullying programs have predominantly been designed to stop bullying that already exists. And the intention, one must suppose, is to prevent bullying from occurring again between the bullies and the victim in question. The intention may also be to prevent bullying between all pupils. The principle, then, is to change the pupils’ attitudes or social structures in class which influence a particular problem, by implementing intervention strategies against just this problem.

Some anti-bullying programs have also been concerned with prevention, in principle independent of intervention against existing bullying. These programs may be regarded as having concentrated on ideographic aspects of class, -in other words with informal relations between pupils and corresponding attitudes and norms. The common procedure outlined for the teacher is to discuss bullying, or positive interactions, with the pupils, so as to prevent bullying from occurring. It is also interesting that curriculum has been adopted to provide this preventative effect. In such cases, the content of this curriculum concerns ideographic issues.

In general, anti-bullying programs focus on bullying both when intervention and prevention are concerned, but this is sometimes supplemented with a broader ideographic approach when prevention is in question.

A more comprehensive systems perspective on bullying could be to inquire whether teachers' monitoring and intervention in general could reduce the amount of bullying. And further, how teachers' relations with the pupils could influence interactions of bullying between the pupils.

A particularly interesting question is how teachers' concern with on task activities in principle, regardless of the content of these activities, could contribute to limit the amount of bullying. This question seems to be relevant, since previous research has found good academic progress to be related with good behaviour of the pupils.

The nature of a systems perspective, is to regard a particular kind of interaction, in this case bullying, as related to many other kinds of interactions. Hence, the amount of bullying could be reduced by increasing the quality of teaching in general. The benefit of this seems to be obvious, as bullying focussed programs are difficult to maintain (Roland 1989b).

When teacher behaviour is concerned, the framework described above may be called "classwork management", or "teacher effectiveness" (Doyle & Carter 1987; Jones 1986).

6.3 ASPECTS OF TEACHING

A consequence of regarding the class as a social system, is that the teacher should be concerned about both the cohesion and the on task domains, and on both prevention and problem solving. A logical conclusion, then, is to portray teacher effectiveness as comprised of many interrelated aspects of teacher-pupil interactions (Doyle & Carter 1987; Jones 1986; McGuinness & Craggs 1986; Tattum 1986; Teddlie & Stringfield 1993).

Organizing, instruction, monitoring and intervention, as well as personal care for students by teacher are commonly mentioned as important and interrelated dimensions of teacher behaviour (Jones 1986; Smith, C.J. 1992), especially within the tradition of school and teacher effectiveness research (Tattum 1986; Teddlie & Stringfield 1993).

We do not claim that the aspects of teacher behaviour we are discussing below constitute a conclusive list, but rather that these dimensions are recognized as central and interrelated.

6.3.1 Pupil orientation

Unsuccessful teachers often seem to use much of their time to interact with individual pupils during the lessons (Laslett & Smith 1984; Mortimore et al. 1988; Rutter et al. 1979; Smith, C. J. 1992). It is not certain, however, that this is because they care very much about the individual pupil. It is not unlikely that an important reason for a lot of interaction with individual pupils is that the teacher is responding to confusion, disruption etc. (Frude 1992; Smith, C. J. 1992). If so, the interaction with the individual pupil, may also be unpleasant both for the pupil and the teacher. It is also likely that teachers, who use much of their time interacting with individual pupils, will contribute to confusion and disruption between the rest of the pupils. In this way the teacher may generate more problems that have to be taken up by interacting with other individual pupils or sub groups during the lesson.

We will not define pupil orientation according to how much time the teacher spends interacting with individual pupils during the lessons, but rather according to how concerned the teacher is about each pupil, and how this is recognized by the pupil.

Teachers' personal concern for the individual pupil, is recognized by several researchers as significant for pupils' learning outcomes and behaviour (Bolger 1986; Frude 1992; Fry 1987; Rogers 1951; Smith, C. J. 1992; Teddlie & Stringfield 1993). A teacher who demonstrates that he or she cares about a pupil, will probably be liked and trusted by this pupil. Teachers may be different as to what degree they demonstrate such a personal concern for their pupils, and also on the tendency to demonstrate different concerns for different pupils. Concern for friendly and motivated pupils is probably not very difficult for teachers. But it is difficult to demonstrate concern for indifferent and unfriendly ones. Teachers may differ widely in their ability to show concern for these pupils (Fry 1987).

To be liked and trusted is not only welcome to the teacher, but also to each pupil, especially for the ones who appear to be indifferent. And most important; the pupils will know whether the other pupils are liked by the same person as themselves. Positive perceptions will very likely increase cooperation between the pupils. In contrast, if pupils believe that the teacher likes some of them but not others, this will probably contribute to a fragmentation of the class (Newcombe 1961, 1971; Frude 1992), and thereby increase the risk of bullying.



6.3.2 Organizational skills

Successful teachers, both when pupils' learning outcomes and when behaviour are concerned, seem to be active and intentional in organizing their classes. This has already been noted in relation to the long term effects of the first period of a school year (Emmer et al. 1982), but also in general (Brophy & Rohrkemper 1981; Doyle & Carter 1987; Emmer et al. 1982; Good & Brophy 1987; Jones 1986; Mortimore et al 1988; Rutter et al. 1979; Smith, C. J. 1992; Teddlie & Stringfield 1993).

The principles of organization are not always clearly outlined, but to organize could be defined as implementing both rules and routines for how the pupils should behave in defined situations, such as when doing individual work, group work and whole class work, how to alternate between such activities, and how to start and finish lessons (Doyle & Carter 1987; Smith C. J. 1992).

Such routines will very likely increase the quality of cooperation between the pupils, and between teacher and pupils. Routines, or organization, then, should be understood as something more than ad hoc, day to day instructions. To implement routines, is to minimize the instructions needed for change of activity from whole-class to small groups or individual work etc.

The important social value of smooth and effective work is to recognize oneself as included in a well functioning team, acting according to accepted standards. Good routines are a win-win situation, which will probably increase the attraction between teacher and pupils, and between pupils. The social benefit of routines should be present for all pupils. But it is most important for pupils that are not very committed to school, or highly competent at managing on their own (Frude 1992).

Without a formal organization initiated by the teacher, the pupils will obviously organize themselves in some way or another, but this will come about by informal social processes. And it is likely that the social pattern of the class will then be according to the will of the strongest and most socially powerful pupils (Robertson 1996; Roland 1995).

The teacher may also believe in democratic processes, which means that the pupils make decisions, for example about how to work. This is the approach recommended by several writers (Dewey 1938; Fry 1987; Schmuck & Schmuck 1977), often referring to the wellknown experiments conducted by White and Lippitt (1960). A problem is that these

studies are not always very specific about the principles of this democratic approach, and the results are somewhat confusing and not easy to evaluate (Roland 1995). But in general, successful teachers seem to make an attempt to involve pupils to some degree in decisions about their own learning and about classroom organisation (Fry 1987; Mortimore et al. 1988).

School and teacher effectiveness research, in particular, emphasizes the importance of organisation skills on the part of the teacher (see Frude 1992; Teddlie & Stringfield 1993).

6.3.3 Instructional skills

To make the framework of the subject clear, and limit the focus of a lesson so as not to confuse pupils, is recommended by several researchers. And within such a clear framework, intellectually stimulating teaching, matched to pupils' competence, will be a benefit (Mortimore et al. 1988; Smith, C. J. 1992).

Important studies by Kounin (1970) and Hargreaves (1984) demonstrated how teachers might confuse the class by being unclear and inconsistent as they tried to teach the children, and this inconsistency decreased time on task and increased disruption. Mortimore et al. (1988) noted that in effective classes, the teachers provided a clear framework for the pupils' work, and how the work should be conducted. Within such clearly communicated structures, the pupils were given some freedom to make choices. In effective classrooms, teachers also tended to organize lessons around one particular area. On the other hand, in classrooms of mixed-curriculum sessions, the noise level was higher, and the pupils did not concentrate so well (p.253). These authors also report that progress was best where teachers mostly used higher-order questions and statements, and where the teachers were enthusiastic and dynamic (p.252). Similar conclusions about the importance of teacher instructional skills have emerged from a great number of studies (Rosenholtz 1991; Smith, C. J. 1992; Teddlie & Stringfield 1993).

It is interesting that the results from several research programs about the significance of instructional skills, have demonstrated that such skills not only contribute to pupils' learning outcomes, but also to good behaviour (Doyle & Carter 1987; Mortimore et al. 1988; Smith, C. J. 1992). A reason for this may simply be that clear and interesting teaching helps the pupils concentrate on schoolwork, and consequently, little time is left for disruptive behaviour. But causal connections may be more complicated than that. A clear and inspiring

teacher may communicate an important message to the pupils, namely that he or she likes the subject, and expects high standards from the pupils.

In the same way as organisation skill, the significance of instructional skill is highly recognized within the tradition of school effectiveness research. Probably, these two aspects of teaching are very closely related (Doyle & Carter 1987; Smith, C. J. 1992; Teddlie & Stringfield 1993).

6.3.4 Monitoring

Monitoring could be defined as demonstration of consistent interest in how the pupils manage, and to obtaining information about performance related to expected standards.

A general result from previous research is that successful teachers monitor schoolwork and behaviour (Doyle & Carter 1987; Levin & Nolan 1996; Mortimore et al. 1988). This result may be regarded as contrary to a belief in the significance of a good personal relation between the teacher and the pupil. This is when monitoring is understood as not trusting the pupil. And of course, this may be the case.

Monitoring has an informative aspect, by the teacher demonstrating standards and means to achieve these standards. Monitoring is a quick feedback loop, which makes the coupling between behaviour and information readable for the pupil. Again, the effect of monitoring is probably of special importance for pupils that are not very committed to school. Predominantly, monitoring has been emphasized within both the behaviouristic tradition (Jones 1986), and within the teacher effectiveness approach (Levin & Nolan 1996; Tattum 1986).

6.3.5 Intervention

To intervene is to inform someone that his or her standard is not good enough and this may not be very pleasant for a pupil to hear. Obviously, then, very good skills are needed on the part of the teacher to intervene in a way that is not disturbing, hurting or frightening. Moreover, independent of skills to intervene in a constructive way, interventions will be

understood differently according to how much confidence the pupils have in their teacher. This may be a simple reason why intervention seems to be so highly related to prevention.

This dimension of teacher behaviour is far more controversial than the others we have discussed. The benefit of intervention is questioned, as results have ranged from positive to rather counterproductive effects (Canter 1992; Doyle & Carter 1987; Fry 1987; Topping 1987).

Also, compared to the other selected dimensions, much more controversy exists about practical approaches (Bolger 1986; Bowers 1986; Brown, B.J. 1986; Canter 1976; Rogers 1951; Steinberg 1986). This may be because recommended methods of teacher intervention towards pupil behaviour problems have commonly been related to controversial therapeutic models. Problem solving methods, for example, are commonly recommended as part of what Jones (1986) calls the counselling approach, which in principle means that the teacher discusses and reasons with the misbehaving pupils. Within the behaviouristic approach (Jones 1986), on the other hand, intervention is highly associated with sanctioning systems (Canter 1992; Topping 1987).

The work of Kounin (1970), Brophy and Evertson (1976) and Emmer et al. (1982) draw attention to the relation between prevention and intervention, as their results demonstrated that successful and not successful teachers mainly behaved in the same way when problems showed up, but that successful teachers behaved differently from their less effective colleagues when problems did not exist. This is not to say of course, that there are no differences in effectiveness between different methods of intervention, but rather to demonstrate the close link between prevention and problem solving within stable groups. Within a systems perspective, interventions should be related to defined standards. Furthermore, interventions should be neutral, and as little time consuming as possible (Canter 1992; Doyle & Carter 1987; Jones 1986).

As we have mentioned above, there is no consensus among researchers about the effects of intervention, or about methods. One main problem that is noticed by several researchers is that interventions by the teacher may disturb the class more than they contribute to good order (Doyle & Carter 1987). Even more serious, teachers may hurt pupils' feelings, frighten the class, and signal authoritarian attitudes by the way they intervene (Canter 1992).

The work of Kounin (1970), Brophy and Evertson (1976) and Emmer et al. (1982), which draw attention to the relation between prevention and intervention, are important in this respect.

6.3.6 Interrelations of management variables

Prevention of misbehaviour is very likely to be related to both caring for pupils, good skills of organisation, instruction, and monitoring. Skilful interventions may also be preventative, as pupils may hesitate to repeat behaviour that the teacher has corrected. We would suspect, then, that the dimensions of teaching we have discussed may be interrelated, and connected with pupils' behaviour.

6.4 *SOCIAL STRUCTURE OF CLASS*

To be able not only to analyze the suspected impact of teacher behaviour on bullying, but also the possible mediating role of pupil-pupil interactions, we need a conception of the social structure of class.

Regarding the class as a formal group, such groups will almost by definition possess nomothetic aspects (Getzels & Thelen 1960), which somehow correspond to what Hargreaves (1995) calls the instrumental-social control domain. As for classes, we could very roughly regard nomothetic aspects of behaviour as on task activities, and we will simply be interested in the quality of such central activities and the smoothness of transmissions between them.

A second level of grouplife is ideographic aspects (Getzels & Thelen 1960), or the expressive-social cohesion domain, as Hargreaves (1995) calls it. This is the informal pattern of attraction, power etc. between the group members, also between members of formal groups.

And finally, a third dimension that is often recognized is the social norms between the pupils (Morland et al. 1996; Schmuck & Schmuck 1977) which will comprise both nomothetic and ideographic issues.

The main question, then, is whether such broad aspects of activities in classrooms are related to the amount of bullying at class level.

6.4.1 Ideographic aspects

Cohesion between members of a group has always been a central aspect of group theory. Pupil-pupil attraction and related social aspects such as status and power have drawn the attention of many researchers (Fehr 1996). Not very surprisingly, popularity has been found to be unevenly distributed between pupils within a class, and the same applies to both status and social power (Frude 1992).

At an individual level, it is known that low popularity is connected with the position as a victim of bullying, and that bullies are average or slightly below on popularity (chapter two).

At class level, low attraction between the pupils, struggling for affiliation and for power, and in-out group patterns have been regarded as major signs of low cohesion in class (Frude 1992). It could be seen as logical to expect that such inadequate pupil-pupil relations are strongly related, or almost analogous to the amount of bullying among the pupils of a class. However, research remains to be conducted to investigate the possible connection between pupil-pupil relations at classroom level and amount of bullying.

6.4.2 Nomothetic aspects

Formal groups should produce something. When classes are concerned, a defined mission of such an organization is the learning process of its members. Time on task, which is often defined as the relative part of a lesson that pupils work with the subjects, has been a common estimate of how effectively pupils work (Smith, C. J. 1992; Teddlie & Stringfield 1993). These on-task activities are of different kinds, of course. The pupils may, for example, work on their own, in-groups, or in plenary activities.

Furthermore, pupils may be observing or performing when doing on-task activities. In general terms, we could describe observing as listening to the teacher or pupils, reading a

text, or looking at pictures, a map or the blackboard. Performing could be illustrated as solving problems or formulating questions or points of view. "

Finally, the very complicated question of the content of the learning objectives has been addressed. One classical question is whether single subject, or mixed subject objectives is most optimal for learning, and for what kind of learning. Again, it is far from our intention to make a full review of the rich literature that concerns these questions (Mortimore et al.1988; Schmuck & Schmuck 1977). Rather, we will concentrate on the possible relation between a rather simple estimate of on-task activities and bullying.

It is not surprising that researchers consistently report a positive connection between pupils' time on-task and learning outcome (see Teddlie & Stringfield 1993). It is interesting that time on-task is also associated with good behaviour (Levin & Nolan 1996; Teddlie & Stringfield 1993), although the causal direction between time on-task, learning outcome and behaviour is not quite straight forward.

However, especially when behaviour is concerned, there is an obvious difference between general behaviour in the classroom, which is reported to be related to time on task, and bullying. The interesting difference is that behaviour in the classroom is much more related to teacher-pupil interaction than bullying, which is predominantly conducted out of sight of the teacher.

Whether on task activities related to learning activities are associated with bullying at class level, seems to us to be a highly interesting question.

6.4.3 Norms of behaviour

In Norway, the central school norms are formulated in The National Curriculum Plan, and they should be regarded as principles of behaviour that the society has decided for the young generation. However, working group norms will mostly emerge by the way behaviour is demonstrated (Fullan 1992). Established norms will regulate day to day interactions. As a formal leader of the class, it is the teacher who can influence this in the most effective way.

There will be norms related to both ideographic and nomothetic aspects of the group, as well as to the teacher's authority. For the individual pupil, the degree of pressure from the perceived norm, will be defined by both the difference between his or her personal opinion

and the perceived opinion of each of the other pupils, as well as by how important the other pupils and the particular standard are perceived to be.

Ideographic related norms concern informal relations between the pupils, which may also include bullying. Nomothetic related norms, on the other hand, prescribe what are right and wrong opinions about the value of task related work. We will also be concerned with authority related norms, and by this we mean how pupils perceive other pupils' opinions of teacher authority. Each of these three norms will be evident in the class, and it is likely that they will be related to the corresponding behaviour of the pupils. It is also relevant to ask whether the three categories of norms are interrelated, and moreover to ask how they may influence bullying.

6.4.4 Interrelations

We have assumed that norms related to ideographic, nomothetic and authority aspects of a class may be interrelated.

Interrelations between norms, on-task activities, and informal relations within a class are also interesting as a general research question. It is also relevant, as we have mentioned before, to ask whether our selected dimensions of teaching are interrelated, and how teaching may be related to the structure of class.

And finally, our main interest is to look at possible connections between teacher behaviour, the social structure of the class and class level estimates of bullying.

6.5 *CONCLUSION*

The class can be understood as a social group, and analysed by social psychological theory and concepts. But the class is a sub unit of a school, and it must be understood within this context. To conceive a class as such a sub unit of the school, we have concentrated on norms, organization and informal relations between pupils. We have used the term "context related" about some norms and aspects of organization to focus on the class as a sub unit of school. The main point is that such context related norms and aspects of organization may be functional or dysfunctional to a larger structure, that of the school system and the school.

Informal relations among the pupils, and even bullying, may be influenced by the content of such context related norms and aspects of organization.

The teachers represent the school system and the school in front of the class. As the formal leader of the group, the teacher possesses means to influence the social structure of the class.

Management in the classroom contains many dimensions. Successful teachers seem to score high on concern for each pupil, on organizing and instructional skills, and on monitoring. The question of intervention with problem behaviour is somewhat controversial, but the effect of intervention is probably related to the other aspects of teacher behaviour, mentioned above.

Successful, and not so successful teachers, may solve problems in a similar way, as observed by the researchers. It is possible, however, that the pupils may regard this in another way. The way the method of problem solving is perceived by the pupils, may be coloured by how the pupils have experienced the teacher before the event. It should also be mentioned that problem solving could be preventative. In general, however, successful teachers seem to solve problems by informing pupils in a neutral way about what is expected, using as little time as possible on this.

Prevention and problem solving may be interacting phenomena, and this may be the case for different aspects of management in general. Important dimensions of teaching, and the possible interactions between them should be investigated and related to behaviour problems, including bullying, in an empirical way.

6.6 *SELECTED CLASSROOM LEVEL VARIABLES*

Our classroom level variables are of two kinds; management variables and variables concerning social structure of class.

6.6.1 Management

We have concluded that the teacher should be concerned with both the cohesion and the on-task domains, and on both prevention and problem solving. The four aspects of management

we intend to investigate are caring for pupils, competence in teaching, monitoring and intervention.

Caring for pupils (Caring). We will be concerned about whether the teacher in general cares about the pupils, whether the teacher is interested in pupils' out of school activities, if the teacher tries to help pupils if they have problems, and in friendship between the teacher and pupils.

This aspect of management is obviously recognized as closely related to the cohesion domain, and probably also to prevention of problem behaviour. But caring for pupils is, as we regard it, also related to on-task activities and to problem solving.

In principle, this is also the way we understand the influences of the three other aspects of management that will be estimated. Each aspect of management may predominantly be related to one or two aspects of the social structure of the class, but the influence on the pupils may be more general.

Competence in Teaching (Teaching). Instead of estimating the two variables, organisation skills and instructional skills, we have decided to use "competence in teaching" as our variable. This variable comprises items about teachers' competence in explaining both subject-matter and pedagogy, plenary activities, group activities and individual work, as well as alternation between these activities.

Monitoring. This variable concerns whether teachers monitor homework, work during lessons, behaviour in classroom and behavior during breaks closely.

Intervention. The items for this variable are problem oriented, as they concern how the teacher reacts when something is not good enough, e.g. different aspects of social interaction between pupils and between teacher and pupils.

6.6.2 Social structure of class

The three variables concern informal relations between pupils, effectiveness of school work and social norms.

Informal relations between pupils (Relations). This aspect of the social structure of the class concerns the cohesion domain. An inspection of the items will show that many aspects of informal relations are included; friendship, support, attraction, isolation, power, and relations between subgroups.

Effectiveness of schoolwork (Effectiveness). We have preferred to use the concept “effectiveness” related to learning activities instead of time on-task. A practical reason for not using time on-task as our estimate of nomothetic aspects of class, is that we have not been in a position to observe, or otherwise collect good quantitative data about pupils’ on-task activities. We regard effectiveness and time on-task as highly related, however, but still not quite identical. Time on-task is normally regarded as the relative part of a lesson that pupils work on the task as set by the teacher (Smith, C. J. 1992; Teddlie & Stringfield 1993). We will understand effectiveness as how well the pupils concentrate when they perform different kinds of on-task activities, and how smoothly they change from one activity to another as the teacher tells them to.

Informal norms (Norms). As we have been concerned about both ideographic and nomothetic aspects of class, norms about both informal relations between the pupils, and schoolwork are investigated. In addition, norms on teacher authority will be included.

7. Chapter seven: Empirical Questions Arising from Theoretical Perspectives

Our general research questions will concern both school level and class level influences on bullying among the pupils.

7.1 SCHOOL LEVEL

As will be recalled, we have been interested in three main variables at school level; leadership by headteacher, professional cooperation, and consensus within staff about professional matters. Our three main research questions related to school level variables are these:

1. How will leadership by headteacher be related to school level estimates of bullying?
2. How will professional cooperation be related to school level estimates of bullying?
3. How will consensus about professional matters between staff be related to school level estimates of bullying?

7.2 CLASSROOM LEVEL

There are two main research questions related to classroom level variables:

4. How is leadership in class on the part of the teachers related to class level estimates of bullying?
5. How is the social structure of the class related to class level estimates of bullying?

Beside these five questions about relations between main predictor variables and bullying, we will also be interested in relations between predictor variables.

PART FIVE: METHODOLOGY AND RESULTS

8. Chapter eight: Methodology

8.1 CHOICE OF METHODOLOGY

In chapters five and six, we considered social variables at school and classroom level that might predict bullying. In general, these variables concerned interactions between headteacher, teachers, and pupils.

In principle, information about these interactions could be obtained in two ways; by self-report or by third party reports. That is, either obtain information about the individuals' roles and positions from themselves, or obtain this information about the individuals from others.

A common method for a researcher to obtain information about someone, is to observe the behaviour in question. To observe interactions between only a few individuals in an adequate way is often very time consuming, in particular if many kinds of interactions are in question (Adler & Adler 1994; Patton 1990). Consequently, observation is commonly used by especially trained observers to obtain in-depth information about interactions between a limited number of individuals.

Another approach for the researcher to obtain information about the behaviour of someone, is to ask other persons to tell what they have observed. The researcher may ask pupils about the behaviour of other pupils, or teachers about the management of their headteacher. In this way, the researcher obtains information from informants who are supposed to know the other persons from natural settings that are relevant to the research questions. Common methods are interviews and questionnaires. These methods are also relevant to obtain respondents' opinions about their own behaviour.

Interviews and questionnaires have much in common, but there are important differences. An advantage of interviews is the flexibility of the method. The researcher is able to follow up questions, if something seems unclear or particularly interesting. A problem, that could be serious, is that in a face to face situation, the person interviewed could make false

statements about him or herself, or others, for many different reasons. But much depends on the skill of the interviewer. Interviewing is also much more time consuming than the use of questionnaires (Fontana & Frey 1994; Patton 1990).

Questionnaires can be a very effective way to obtain information from many individuals at approximately the same point of time. Common problems are the limited flexibility, and that some respondents may have difficulties reading and/or understanding the questions (Borg & Gall 1989).

Finally, we should mention that with observations and interviews, there may be more difficulty obtaining an official permission to conduct the investigation, because of the question of anonymity. The risk of losing cases may also be higher with interviews and observation, as anonymity may be regarded as a more serious problem by those interviewed or observed.

For the purpose of an investigation, it could be relevant to use a combination of methods. Obviously, one method may be considered very relevant to obtain one kind of information, but not that relevant for other purposes within one and the same investigation. Furthermore, it may be considered important to use different methods to collect information about one and the same issue.

We could have obtained information about schools and classes by interviewing pupils, teachers and headteachers. We also considered the use of observation. Obviously, both these methods, or a combination, could have provided us with important information. There were, however, several reasons for not using such methods.

Our research questions concern the relationships between school level social variables and school level estimates of bullying, and parallel relationships at classroom level. This is to regard schools and classes as the most interesting units of investigation, and not primarily the individual teachers or pupils. It follows that in principle we prefer to have a rather large number of schools and classes in our sample to be able to compare a sufficient number of units.

Within the limit of our resources, both interviews and observations would have been very time consuming. The main reason was that we were not in a position to use research assistants for the purpose of data collection. Implementing interview or observation

methods for this study, would thus have necessitated a rather extended data collecting period. Hence, data would be collected at different points of time in different schools and classes. It has been found that interactions between teachers and pupils seem to change during even the limited period of one semester (Fry 1987). This problem of obtaining information at rather different points of time was considered as important. We also considered it possible that bullying between pupils, and headteacher-teacher interactions could change during the period of time we would use to obtain data by interviews and/or observations. Especially with observations, which we considered a most interesting alternative or additional method to questionnaires, we realized that the period of data collection would have been rather long.

Moreover, since a main purpose of our research was to investigate to what degree school level and classroom level social variables may contribute to predict bullying, it was considered important to obtain information about bullying in the same way as had been done in major investigations about influences from other variables, as discussed in chapters two and three. Observations or interviews were not considered, then, the best method for obtaining information about bullying in this investigation.

As we concluded in chapter two, home conditions of the pupils are related to bullying at school. Consequently, we wished to obtain information about interactions within the families of the pupils, to estimate the relative impact on bullying from families, school level factors and classroom level factors. In a large scale investigation, it would have been almost impossible to obtain information about each family without using questionnaires to the parents and/or to the pupils. If the information about family conditions was obtained from the parents in this way, we would have to relate this information to data about schools and classes given by others than the parents. Obviously, this could have been done at classroom level and at school level, to secure the anonymity of parents and pupils. But the risk of losing cases would have been much higher, we believe, than if information about home conditions could be obtained from the pupils. The cost of obtaining the information from parents would also have been higher, and we were not convinced that information from the parents about home conditions would have been more reliable and valid than information from the pupils about these matters.

An important question was the principle of anonymity. In Norway, it is much easier to get permission from the authorities and from the parents to conduct investigations about rather sensitive pupil issues if the investigation is anonymous. It was also assumed that teachers

and headteachers would be more positive to the investigation if it could be conducted anonymously. Interviews and/or observations were thus regarded as a problem, and one which we considered as serious.

For the purpose of this investigation, a pupil and a teacher questionnaire were employed. Information about staff issues was collected from all the teachers. The possibility of including headteachers as informants was also considered, but not deemed necessary as information from teachers was regarded as sufficient for our purpose. An added threat was that of losing whole schools should headteachers refuse to participate.

Those teachers who were appointed as the main teachers of the classes, this is one teacher per class, were also asked to give information about their classes. Information about bullying was given by pupils only.

We decided to obtain information from two groups of informants, teachers and pupils. And we wanted to obtain information from both sources about themselves and about others. The teachers were requested to give information about their own role or position, and about interactions between headteacher and teachers, between teachers, between teacher and pupils, and between pupils. In the same way, pupils were invited to give information about their own role or position, about interactions between teachers and pupils, and between pupils. The information requested from teachers was, as far as possible, parallel to that provided by the pupils when classroom level information was concerned. This would allow the use of alternative analyses.

We did not have the resources to conduct a large scale investigation, and afterwards make in-depth analyses of some particularly interesting schools or classes, although we realize that this may have been a valuable approach.

8.2 *INSTRUMENTS*

As will be discussed in more detail when we consider the reliability and validity of our instruments, the main principle behind the construction of our scales was to adopt a deductive approach.

A deductive approach in instrument construction is to start with theory. The instrument, then, is constructed according to theoretical considerations about what events the items of each scale of the instrument should represent.

It follows from a deductive approach that the content of each scale should be logical according to theory, and demonstrate consistency. These questions will be addressed as we discuss reliability and validity of our instruments.

To adopt instruments according to theory does not necessarily mean to construct new instruments. Established instruments could be used when they are valid and reliable. To adopt established instruments to estimate the kind of variables described above is also useful when new instruments should be validated. And further, established instruments or new ones could be included in the investigation for the purpose of evaluating the validity of the variables used to predict bullying, or to validate the estimates of bullying itself.

These principles were our main guidelines when constructing our questionnaires.

In chapters 5 and 6, we discussed social variables at school level and at classroom level that may predict bullying among pupils, and we made general conclusions about relevant variables for our own investigation. The school level variables were Leadership by the headteacher, four aspects of Professional Cooperation between teachers, and Consensus within the staff. The classroom level variables were four aspects of Management by teachers, and three aspects of Social Structure within the class. Each of these variables was operationalized by a scale comprising several items.

Our instruments are two questionnaires; one for the teachers and one for the pupils. As mentioned above, information about family conditions and bullying is provided by the pupils only, and staff level issues by the teachers only. As far as possible, the items concerning class level issues are parallel in the two questionnaires. We have information, then, from both teachers and pupils about class level issues.

Below, we will give more detailed information about our instruments, and we will relate this to the corresponding questionnaires in the Appendix. Appendix 1 comprises the teachers' questionnaire and Appendix 2 the pupils' questionnaire.

8.2.1 School level variables - Teachers' questionnaire (Appendix 1)

The Teachers' questionnaire comprises scales estimating school level variables.

Leadership by the head teacher (Leadership) (Appendix 1A)

The Leadership Scale is an 8-item version of an instrument often referred to as The Cooper Scale estimating work related stress. All the selected items concern stress related to the leader's style of management (Cooper & Marshall 1978; Mykletun 1984). The items correspond to the dimensions of leadership discussed in 5.4.1.

Professional Cooperation (Appendix 1B)

Information about the four aspects of Professional Cooperation between the teachers is obtained by four scales in the teachers' questionnaire, constructed for the purpose of this investigation.

The scales estimating the four aspects of professional cooperation discussed in 5.4.2. were Cooperative planning work, Project groups, Peer supervision and In-service teaching. The four scales comprise three items each.

Consensus (Appendix 1C)

According to guidelines discussed in 5.4.3., The Consensus Scale comprises nine items concerning consensus about professional matters. The scale is constructed for the purpose of the present investigation.

8.2.2 Classroom level variables - Teachers' questionnaire (Appendix 1) and Pupils' questionnaire (Appendix 2)

Information about classroom level variables was obtained from both the teachers and the pupils. As far as possible, the scales concerning classroom level variables are parallel in the two questionnaires.

Management by the teachers (Appendix 1D and 2A)

Four scales were used in the teachers' questionnaire, and four fairly similar scales in the pupils' questionnaire. The four scales concern teachers' personal care for pupils (Caring), competence in teaching (Teaching), Monitoring and Intervention, as outlined in 6.6.1.

These instruments were constructed for the purpose of this investigation.

Social structures of class (Appendix 1E and 2B)

For the purpose of the present investigation, we constructed three scales for the teachers' questionnaire, and three fairly similar scales for the pupils. The three scales in both questionnaires concern informal relations between pupils (Relations), effectiveness of schoolwork (Effectiveness), and social norms (Norms), as discussed in 6.6.2.

8.2.3 Family conditions and bullying - Pupils' questionnaire (Appendix 2)

The Family (Appendix 2C)

Six out of eight items from an instrument constructed by Ystgaard (1993) were adopted. The scale concerns different aspects of the relation between the pupil and the family. We excluded two items from the original scale because of consistency problems (Borg & Gall 1989).

Bullying (Appendix 2D)

Our key questions to the pupils about bullying at school are in principle the same as those commonly used in the previous major investigations referred in chapter two. We provided the pupils with a definition or explanation of bullying, and we asked them how often they had bullied others, or had been bullied this school year (Olweus 1985, 1991; Smith & Sharp 1994).

8.2.4 Additional items

For the purpose of evaluating the validity of our instruments, several additional items were included in the two questionnaires, as can be recognized in appendix 1 and 2. We will return to these items as we discuss the validity of our instruments.

For other purposes than the present investigation, other items were also included in the two questionnaires.

8.3 *PILOT INVESTIGATIONS*

As part of the first Norwegian campaign against bullying (Olweus, 1991, 1993; Roland 1989b, 1993a), national baseline data were collected a short time before the campaign (Olweus 1991, 1993). These data were compared with data from our own follow-up investigation three years later at 37 primary and secondary schools in Rogaland, Norway, to estimate the effects of the campaign (Roland 1989b, 1993a). In addition to the standard questionnaire used in the baseline investigation and in the follow up, we conducted interviews with headteachers and some teachers at each school concerning staff issues. About 2000 pupils from the total sample of about 5000 completed an extended version of the pupil questionnaire, comprising classroom level issues. An important conclusion was that pupils below grade four, often had problems with a questionnaire of the complexity needed.

A first version of the pupil questionnaire for the present study was tested in Rogaland, Norway, on one class at fifth grade level. The main objectives for this were to test some new items, and to test the procedure for administering the questionnaire in class, including the time necessary for the investigation. Afterwards, we interviewed the teacher who had administered the investigation.

In addition, the teacher and the pupil questionnaires, as well as the administrative procedure were tested on a sample of 18 primary schools in 1993. Approximately 700 pupils and 140 teachers took part in this pilot study. The pupils were in grade five.

The Rogaland investigation and the two pilot studies were an important background for our present study.

Mainly, we retained the variables in both questionnaires for the present study, but some changes were made at item level. By estimating consistency between scores on the items comprising our scales, we excluded or reformulated items, which had a weak loading on the scale or subscale. Also items which teachers reported to be difficult for teachers or pupils to understand were excluded or reformulated. The validity of the variables was considered by relating our variables to each other, and to variables in our questionnaires constructed or adopted for this purpose. Finally, some new items were included, because of our ongoing studies of relevant literature.

8.4 *SAMPLE SELECTION*

The investigation was conducted in primary schools. An important reason for this was our interest in the impact of teachers on social interactions in class. To investigate this at the primary level can prove to be difficult, albeit less difficult than at the secondary level. The main reason for this is that considerably more teachers are involved in each class at secondary level than at primary level during the period of one week. In our sample, comprising primary level, the mean number of teachers involved in one class during one week was close to four. At secondary level, the corresponding number of teachers was between 6 and 7, according to information obtained from a large sample of secondary schools in Norway (Centre for Behavioural Research 1995). We will return to this question of identifying teachers' influence on the pupils in our sample of primary schools, when we present and discuss our results.

The pupil sample consists of pupils in grades 4-6, representing the three final years of primary school in Norway. (Following the implementation of a new school reform in 1997, these pupils would now be considered as being in grades 5 - 7.) We had learned from an earlier investigation (Roland 1989b, 1993a), that pupils younger than about 10 years had difficulties answering a questionnaire of the complexity we needed for our investigation. We debated, however, whether to include younger pupils.

One possibility was to construct a simplified questionnaire for all pupils. This would have enabled classroom level analyses also among pupils below grade four. Obviously, it would have been interesting to compare results from a wider range of age levels. However, we considered it more important to obtain detailed data from pupils in grades four to six.

Another possibility was to construct two different questionnaires, one version for the pupils in grades four to six, and one very simple one for younger pupils. This would make a simple estimate of bullying others and being bullied among younger pupils possible, as well as the establishment of school level estimates of bullying based on information also from younger pupils than those in grades four to six. We realized that this may have made the school level analyses more reliable.

On the other hand, to include also the youngest pupils in the investigation, would have necessitated a request for the head teachers and the staff to use even more of the schools' resources to collect answers from parents about pupils' permission to participate, and otherwise to assist with the pupil investigation. The risk of losing schools because of this

would have increased, we concluded. The pupils in our sample, then, are between 10 and 14 years old.

When composing the sample, the administration district was considered. In Norway, all primary and secondary schools are governed according to the same law, curriculum and other regulations, decided by the national authorities. The next level of administration is the Director of Education located in each county. Furthermore, each municipality within the county has a school board and a local director of schools. And finally, each school has a head teacher and an advisory board composed of the headteacher, teachers, parents, and a politician.

At the onset, we had wanted to compose our sample of schools from one municipality only. We could have done this, if we had selected one of the largest cities in Norway as our district of investigation. But we did not want to do this, because of a rather large proportion of immigrant pupils in many of these city schools. For our purpose, this would have complicated the investigation too much. The investigation, then, was conducted at county level.

The county chosen is located in the southern part of Norway, and has about 150 000 inhabitants. Typical for this part of Norway is north-south going rivers, running through flat valleys with relatively steep, but not very high hills or mountains at both sides. Where the river meets the sea, a town or a village is located. The county capital has about 70 000 inhabitants. The other few towns are relatively small. Otherwise, people live along the coastline or in the valleys, in villages or on farms. The population is slightly younger than the rest of Norway. Income per capita is slightly below the mean for Norway, and there is no large difference between rich and poor (Statistics from the County Office).

The investigation was conducted at so-called ordinary primary schools. Small primary schools where pupils of two or more age levels composed a class were excluded. Excluded were also so-called combined schools, these are schools containing pupils at both primary and secondary level. We will call all other primary schools, "ordinary" primary schools.

In the county capital, by far the largest municipality, about half of the participating ordinary primary schools were chosen randomly. All the other schools in the county, except one, were asked to take part in the investigation. The one school that was not asked to participate was excluded because our research institute had run a project at this school about prevention

and management of bullying and other behavioural problems. This left a total of 31 ordinary primary schools, which were asked to participate.

As mentioned before, we had learned from a previous investigation (Roland 1989b, 1993a) that pupils in grades 1-3 (ages seven to nine) had difficulties in providing the sophisticated information which we needed for our present investigation. Consequently, only pupils in grades four to six were included. The schools in the sample had a total of 180 classes and approximately 3440 pupils at levels four to six.

8.5 *PROCEDURE*

The investigation was conducted in May 1995. There were two kinds of questionnaires, one set for teachers and one set for pupils. All teachers were asked to answer the questionnaire anonymously, to put the completed questionnaire in an envelope, to close it, and to deliver it to the administration at school.

The pupils received a letter describing the investigation for their parents, and the parents were requested to reply whether their child could take part. The appointed main teacher of class collected the answers.

It was also the appointed main teacher of class who administered the pupil questionnaire in their classes, according to written instructions. All classes at school were to conduct the investigation at the same time, and if possible all schools in the sample were to conduct it on one particular day, suggested by us.

The teacher was instructed to start by informing the class that no one at school would see the answers. The teacher said that when the questionnaires were completed, they would be placed in an envelope, and it would be sealed and brought to the administration by the teacher and one pupil.

The teacher, then, read the questions one by one to the pupils. The teacher was instructed to explain a question if a pupil asked for this.

All questionnaires were returned by post. Data analyses have been carried out using SPSS.

8.6 RESPONSE RATE

8.6.1 Schools

Of the 31 ordinary primary schools, which were asked to participate, 22 took part in the investigation. There were different reasons why 9 schools did not take part. Two of them were occupied with another investigation, and three schools in one municipality did not get the material in time because of a misunderstanding at the local post office. The remaining 4 schools did not wish to participate.

8.6.2 Classes and pupils

The 22 schools had a total of 128 classes at levels four to six. For different reasons, a total of ten classes did not take part.

The remaining 118 classes, composed a total of 2389 pupils. Almost 400 of these were lost because of different reasons (see table 8.1 below), and we ended up with 2002 valid cases.

Table 8.1 Lost cases by reason.

	all	girls	boys
parental permission not given	7.4%	4.9%	9.8%
absent on day	5.3%	4.1%	6.4%
inadequate answers	2.8%	2.6%	3.0%
lack of identification	0.7%	0.4%	1.0%
total	16.2%	12.0%	20.2%

We lost a total of 304 cases because parents did not give their child permission to participate, or because the pupil was absent from school the day of the investigation. We do not know exactly how many pupils we lost because of lack of permission, or because of absence from school because 12 class teachers did not fill in “class teacher’s record”, in which this information was asked for. We have, however, records from the rest of the classes. We estimate, then, that we lost a total of 177 cases because the parents did not permit the pupil to take part and 127 pupils because pupils were absent.

We had to omit 67 questionnaires because they were not filled in adequately. We also lost 16 cases because the pupils did not fill in the identification code.

The total percentage of lost cases, in those classes that participated in the investigation, is 16.2%. We notice that the percentage for missing data is higher for boys than for girls.

8.6.3 The teachers

All teachers at each school, but not the headteacher, were asked to fill in the teacher questionnaire. The total number of teachers was 417, and we received completed questionnaires from 279 of them, which is a response rate of approximately 70%.

The total number and percent of teachers that did not fill in the questionnaire varied from school to school, and we will report more details about this in chapter 9, when we consider whether some schools should be excluded from our school level analyses.

Of special importance were the answers from the appointed main teachers of each class, grades 4 - 6, as they provided us with information about social issues in these classes. We should mention here that in Norway, several teachers teach one and the same class during a week. One of these is appointed by the head teacher to be the main teacher of class. These teachers were especially encouraged to participate in the investigation, and we received completed questionnaires from 99 out of 118 main teachers (84%).

8.6.4 Missing data on items

Missing data on items were replaced by the figure closest to the mean. As for pupils, the mean number of missing data on an item was 17, and the maximum number was 31. For teachers the mean number of missing data was 4, and the maximum was 9. Missing data on bullying others and being bullied were not replaced.

8.7 *RELIABILITY*

8.7.1 Introduction

One important aspect of the reliability of an instrument is whether scores demonstrate stability if the test or investigation is administered to the same informants at different points of time, given that the trait or event investigated is stable. Low stability may be due to many different reasons, such as different degree of motivation of the individual, distractions etc. To minimize these problems, the procedure of investigation and the external conditions during the investigation should be standardized as far as possible (Borg & Gall 1989; Brown 1970).

When a questionnaire is administered to many individuals, in order to obtain different kinds of information for research purposes, we risk a serious problem of inter - individual, or inter - unit variation due to errors of measurement if the conditions given to individuals or groups are different. As far as possible, then, we should standardize the procedure for the investigation.

Also, when pupils and teachers are concerned, some social conditions may change during the progress of a school year (Fry 1987). Consequently, reliability is assumed to improve if the investigation is conducted at approximately the same time during the school year for all participants.

We intended to secure the main principles mentioned above. All information was obtained at approximately the same time, in May 1995, and other standardized procedures for conducting the investigation were given, as described above.

8.7.2 Consistency

The consistency of item scores concerns the interrelations between such scores (Borg & Gall 1989; Brown 1970; Kuder & Richardson 1937; Richardson & Kuder 1939). Probably, the most common estimate of consistency or homogeneity of a scale, is Cronbach's alpha, which builds on one of the Kuder-Richardsons' formulas (K-R 20). But opposed to K-R 20, which presupposes that the items are scored dichotomously, Cronbach's alpha can be calculated when the items are not scored in this way (Borg & Gall 1989; Cronbach 1951).

In theory, an alpha may be 1.00, which means perfect consistency. An alpha of about .90 is normally expected on standardized tests, which are constructed for diagnosis or counselling of individuals (Brown 1970). An alpha of about .70 -.75 is normally regarded as fairly good or satisfactory when the instrument is used to compare groups of individuals for research purposes. An alpha slightly below .70, may also be accepted for such research purposes (Brown 1970; Rican et al. 1993).

If an alpha is low, it may simply imply that the items of a scale, or some of them, reflect such different aspects of for example personality or social events, so that the mean scores of this scale is difficult to interpret in a meaningful way. One example of a very serious problem may be that identical mean scores could be calculated from very different profiles of item scores. On the other hand, perfect consistency may not be ideal, if one wants the items to represent a universe of interrelated events, that nevertheless differ in certain respects. In this way, an estimate of consistency is closely related to an evaluation of the content validity of the scale (Borg & Gall 1989; Brown 1970), which will be discussed below.

Consistency of first and second level independent variables

As will be recalled from chapter five, the school level issues concerned were Leadership by headteacher, Professional Cooperation between teachers, and Consensus about professional matters within staff.

When Professional Cooperation was concerned, we discussed four variables that were regarded as aspects of this issue. These variables were Cooperative Planning Work, Project Groups, Peer Supervision, and In-service Teaching. As these four variables are regarded as aspects of Professional Cooperation, we considered it reasonable to construct a general variable labelled Professional Cooperation based on the four mentioned variables, and estimate the consistency of this variable.

In the same way, we considered it adequate to construct a general variable labelled Management by Teachers, based on the four management variables Caring for Pupils, Competance in Teaching, Monitoring, and Intervention. And finally, a general variable concerning Social Structure of Class was constructed, based on the three variables Informal Relations between Pupils, Effectiveness of School Work, and Social Norms.

Concerning the school level, then, we constructed one "new" general variable covering aspects of a general social issue; Professional Cooperation. In addition to this, Leadership by Headteacher (Leadership) and Consensus are variables concerning general school level issues. These general school level variables are called "first level variables". The four variables covering aspects of Professional Cooperation are called "second level variables".

At classroom level, Management by Teachers (Management) and Social Structure (Structure) are first level variables, while those variables covering aspects of Management and Structure respectively, are called second level variables.

For the original scales (see Appendix 1 and 2), we estimated the consistency between item scores. When a first level variable, based on second level variables, is concerned, alpha is computed as an estimate of consistency between sum scores on those original scales that cover the aspects of the first level variable.

Cronbach's alpha as well as mean score and standard deviation are given in table 8.2.

Table 8.2 Cronbach's alpha for first level (bold types) and second level variables. Mean score and standard deviation in parentheses. Pupil perception (N=2002) and teacher perception (N=279).

Cronbach's alpha, mean, and SD		
	Pupil perception	Teacher Perception
Leadership		.94 (1.00, 1.10)
Professional Cooperation		.64 (2.83, 0.89)
Cooperative planning		.87 (3.67, 1.11)
Project groups		.85 (3.11, 1.32)
Peer supervision		.93 (2.29, 1.44)
In-service teaching		.71 (2.25, 1.30)
Consensus		.84 (3.41, 0.80).
Management	.88 (3.23, 0.48)	.75 (3.39, 0.64)
Caring	.70 (3.00, 0.64)	.63 (3.55, 0.34)
Competence	.80 (3.41, 0.57)	.79 (3.34, 0.48)
Monitoring	.73 (3.22, 0.57)	.63 (3.55, 0.41)
Intervention	.63 (3.28, 0.63)	.81 (3.12, 0.50)
Structure	.77 (2.97, 0.40)	.67 (3.14, 0.36)
Relations	.71 (2.92, 0.38)	.77 (2.83, 0.50)
Effectiveness	.71 (2.75, 0.59)	.81 (3.02, 0.53)
Norms	.72 (3.25, 0.54)	.71(3.58, 0.37)
Family	.74 (3.44, 0.42)	

(N=2002 for pupils, and N=279 for teachers throughout this chapter)

When consistency is discussed below, we will refer to the names of variables instead of scales, since some first level variables are not based on original scales, but on second level variables.

To separate variables based on teacher information from parallel variables based on pupil information, we will add a "T" or a "P" to the name of the variable. "T" means that the variable is based on teacher information and "P" means that the variable relies on pupil information. An example is that Management T is based on teacher information, whereas Management P relies on pupil information.

As seen in the table above, the alphas obtained vary between .63 and .93, and we may conclude that the internal consistency of most of the variables is good or fairly good. Three second level variables do, however, have alphas below .70. The alpha is .63 for all these three second level variables, and each of them concerns aspects of classroom management.

Six out of eight variables demonstrate good or fairly good consistency. "Structure - Teacher perception" (Structure T) has, however, an alpha of .67, and "Professional Cooperation" demonstrates an alpha of .64.

We do not regard an alpha between .60 and .70 as a major problem, but we will discuss it as we present results that involve variables with such alpha levels.

8.7.3 Bullying

The standard method for estimating bullying and which also was employed here is to rely on information from the pupils as they answer standard questions about their own position as bullies and victims according to a standard definition of bullying. Thus, we must rely on the pupils' own understanding of the definition, their understanding of their own position according to the definition, and on their willingness to tell the truth. These problems concern both pupils who actually are involved in bullying, and those who are not. This makes it difficult to say how reliable the answers are.

Another problem is that much of the interaction in bullying goes on behind the backs of parents, teachers, and probably also many of the other pupils. Consequently, information from these sources about at least some of the pupils may not be reliable. The question of inter-rater reliability, then, seems to be of special importance concerning estimates of bullying.

Ahmad & Smith (1990) who investigated about 100 pupils aged nine to 15 years, compared different kinds of information about bullying. Two different questionnaires concerning bullying were administered to the pupils, and the pupils were also interviewed by use of the same questions as those in the questionnaires. The two questionnaires were "Life in Schools" (Arora & Thompson 1987), and a slightly modified version of the questionnaire used as part of the 1983 Norwegian campaign against bullying (Olweus 1989). In addition, peers and teachers nominated bullies and victims in class. A conclusion from this study was that interviews were not the best means to estimate the incidence of the problem, as with

some pupils they led to defensive answers. When inter-rater reliability was concerned, the correlation between questionnaire responses from pupils and teacher nominations was good for victims, but not quite so good for bullies. Peer nominations were quite consistent and demonstrated better agreement with responses on the questionnaire.

To estimate bullying among pupils by asking them to answer an anonymous questionnaire, comprising a standard definition and questions, will certainly not provide us with perfectly reliable data at pupil level. But we agree with Smith and Thompson (1991), that this procedure is still a suitable one for many research purposes. As our main analyses comprise school level and classroom level estimates of bullying, we do not regard the problems of reliability at pupil level as a serious one for our purpose.

8.8 *VALIDITY*

A reliable instrument is not necessarily a valid one, since validity refers to whether the instrument measures what it was intended to do. But a good validity depends on a fairly high reliability.

Predictive and criterion related validity

Sometimes, validity can be estimated by the predictive power of an instrument. One simply asks whether the instrument or test is capable of predicting a particular kind of event in the future, often a non-test variable, for example criminal behaviour. The instrument may also be validated against a criterion, also often a non-test variable which is observed at approximately the same time as the instrument is administered. These two closely related procedures for evaluating validity do not necessarily depend on theoretical considerations (Borg & Gall 1989; Brown 1970). We have not been able to validate our instruments in these ways.

Content validity

Very commonly, the validity of an instrument is evaluated by inspecting its content, which means to evaluate whether the items cover the different aspects of, for example, a particular performance that the test is meant to represent. Sometimes, also, a definition of a topic given to the respondents, is part of the content analysis. The focus, then, is on the content of the instrument per se, and the method is a judgmental process by the researcher. Depending on the nature of the instrument, evaluation of content validity is more or less theory related (Borg & Gall 1989). For us, this procedure has been central, as our items and scales are

derived from previous research and theory. The discussion and conclusions were presented in chapter 5 and 6. The match between our conclusions and our instruments can be evaluated by inspecting our items, and scales related to this discussion and the conclusions.

Construct validity

This evaluation of validity is primarily a question about how scores on an instrument are related to estimates of other theory relevant events. Construct validation, then, depends on a theory, or theories, that hypothesize a particular kind of order between events. This network of constructs, sometimes called a nomological network (Brown 1970, p.143), is the principal tool of construct validation (Borg & Gall 1989; Brown 1970). The combination of a nomological network and estimates of different events relevant to the network, is the process of construct validation that in fortunate cases may produce both better instruments and theory.

At a given stage in this process, the researcher may use instruments that already have been found to estimate particular events in a good way, that are relevant for the purpose. But it may also be necessary to construct new instruments.

There are two main ways to conduct a construct validation. One approach, which is very common, is to make an empirical investigation, comprising many items supposed to be relevant for the purpose, and then to intercorrelate the scores of these items, often by use of factor analyses, to inspect if there should happen to be clusters of items that could represent factors. By inspecting the content of the items of each factor, and by testing the relations between factor scores, it may be possible to produce a theoretically meaningful conception of the variables. This is a typical inductive way of constructing instruments.

The deductive approach, on the other hand, is to begin with theory. The instruments are constructed according to theoretical considerations about what events the items of each instrument should represent. According to theory, the relations between scores on each instrument could also be predicted. Predominantly, we have adopted a deductive approach, by selecting and constructing our instruments according to theoretical considerations. Especially for new instruments, this procedure involves a content validation, as described above (Brown 1970).

A two step procedure for construct validation will be adopted. The first step will be to test interrelations between independent variables, as we by now want to call them, which comprise our own investigation about influences on bullying. We will call this an internal

construct validation (Step 1). If our theory predicts any kind of relations, or non-relations between such variables, this procedure will help to validate each of the instruments that is being related to other instruments. The logic of this is that a confirmation of hypothesized relations between two or more variables indicates that all variables involved reflect what they were meant to do. On the other hand, if hypothesized relations are not confirmed, it may indicate theoretical problems, or that at least one of the variables involved is not valid. If several variables are being tested for interrelations in such cases, it may be possible to identify which variable is not valid.

A second level of construct validation, could be to relate groups of independent variables to certain, theoretically meaningful, estimates of other events. We prefer to call this an external construct validation (Step 2). Thereby we relate our own nomological network of independent variables to a broader universe of variables. This could also be done for our dependent variables, *bullying others and being bullied*. The logic of this is the same as mentioned above. If for example *bullying others* is regarded as an aspect of antisocial behaviour, we could predict that our estimate of bullying should be related to estimates of other antisocial activities. And if this should happen to be the case, it would make us more confident that our estimate of bullying is valid.

An overview of our independent variables was given in table 8.2., and we will treat the variables in the same order as they were presented in that table. Finally, the validity of our estimates of bullying will be discussed.

8.8.1 Staff level variables

Our first level variables concerning staff issues are Leadership, Professional Cooperation and Consensus, and the second level variables, which are aspects of Professional Cooperation, are Cooperative Planning Work, Project Groups, Peer Supervision and In-service Teaching. All information has been obtained from teachers. The first level variable "Leadership" concerns stress arising from headteacher's style of leadership and high scores are negative. High scores on the other variables are regarded as positive.

Step 1

Second level variables: There are four such variables concerning staff issues, and all are regarded as aspects of the first level variable Professional Cooperation. The interrelations between these four second level variables, were treated as a question of reliability of the

first level variable Professional Cooperation, as will be recalled. Cronbach's alpha was calculated to .64, which demonstrates that the internal consistency of Professional Cooperation is not very strong.

We could, however, also regard the calculation of Cronbach's alpha of Professional Cooperation as a construct validation of the four second level variables, see Brown (1970). And the conclusion, then, should be that the four second level variables are fairly interrelated, as we expected. It should, however, be noted that Cronbach's alpha is an overall estimate of interrelations, and consequently relations between some variables could be much stronger than those between others. We have tested this possibility, and the different correlations between pairs of the second level variables were not different to any considerable degree, as the correlations varied from .27** to .35** (*: $p < .05$, **: $p < .01$). Furthermore, as we had no good reason to expect such differences, and good reasons to suspect that the different aspects of professional cooperation were interrelated (chapter 4), the question of validity of the four second level variables concerning Professional Cooperation has passed the first test. We will, however, keep in mind that the intercorrelations are not very strong.

As for interrelations between second level variables, we will also further on restrict ourselves to using Cronbach's alpha as an estimate, and only consider correlations between pairs of variables if unexpected results emerge.

First level variables. The first level variables concerning staff issues are Leadership, Professional Cooperation and Consensus. As discussed in chapter 3, we expect Professional Cooperation and Consensus to be positively correlated, and negatively correlated with Leadership (Stress with headteacher's style of leadership).

Correlations between the three variables are given in table 8.3.

Table 8.3 Intercorrelations between the three variables Leadership, Professional Cooperation (PC) and Consensus based on answers from the individual teachers (N=279).

	PC	Consensus
Leadership	-.16	-.44**
PC		.55**

(Pearson product moment coefficients are used as standard throughout the report. A correlation, difference etc. is regarded as significant if $p < .05$, if nothing else is specified. (*: $p < .05$, **: $p < .01$). (The symbols * and ** will be used in this way as standard).

Leadership and Professional Cooperation are related to each other in the expected way, but the correlation is rather weak and not significant. We recognize, however, that Leadership is significantly related to Consensus in the expected way, and also that Professional Cooperation and Consensus are significantly and positively correlated.

As will be recalled, the Leadership Scale comprises items from an established instrument (Cooper & Marshall 1978; Mykletun 1984), and we are concerned about the validity of Professional Cooperation, then, because of the non-significant correlation with Leadership. It will also be recalled that the internal consistency of Professional Cooperation was slightly below .70.

Step 2

Staff level variables have, then, been related to each other, as step one of our construct validation. This was called an internal construct validation. A second level of such a validation of independent variables is to relate them to other theoretically meaningful variables. We called this an external construct validation.

Two variables were constructed to validate Leadership, Professional Cooperation, and Consensus. These are "Professional Support" (Support), and "Proud of being an employee at this School" (Proud).

The "Support" variable comprised five items. "Proud" is a one-item variable. All items are formulated as statements. A six-point scale was used (0=low score, 5= high score).

Support:

- Should I have problems with pupils, the principal will support me
- Should I have problems with pupils, my colleagues will support me

- Should I have problems with a class, I would try to hide the fact from the principal (reversed)
- Should I have problems with a class, I would try to hide the fact from my colleagues (reversed)
- My colleagues are always glad to hear that my teaching is going well

Variable score is the sum of item scores, divided by 5. (Mean=4.27, SD=.59, Alpha=.71, N=279)

Proud:

The item is formulated in this general way:

- I am proud of being an employee of this school (Mean=3.78, SD=1.28, N=279)

We considered Support and Proud to be two general correlates of all the variables concerning staff issues. One of the main results reported by Rosenholtz (1991), was that mutual professional support was typical at schools with good headteacher-teacher relations, much professional collaboration and consensus among members of staff. This was also expected by the author according to theoretical considerations. Results from several other studies point in the same direction (Munthe 1997). We expect, then, that professional support is significantly related to each of the staff level variables.

It is also expected that Proud will be negatively correlated with Leadership (stress with headteacher's style of leadership) and positively with Professional Cooperation, including the four second level variables, and Consensus, as both good leadership, professional cooperation, and consensus are recognized in Norway as highly desirable for a school.

Table 8.4 Correlations: Leadership, Professional Cooperation (PC) plus second level variables concerning PC, and Consensus with Support from Staff (Support) and Proud to be employed at this school (Proud). (N=279).

	Support	Proud
Leadership	-.26**	-.34**
PC	.26**	.47**
*Cooperative planning	.31**	.38**
*Project groups	.07	.33**
*Peer Supervision	.19	.32**
*In-service teaching	.17	.29**
Consensus	.36**	.64**

We had expected both Support and Proud to be negatively correlated with Leadership, and positively with Professional Cooperation and Consensus. The correlations with Support are weaker than those with Proud, which was not expected.

Concerning the Professional Cooperation second level variables, we observe that all these variables correlate significantly with Proud, whereas only Cooperative Planning correlates significantly with Support.

8.8.2 Classroom management

As we have seen above, the construction of two first level variables concerning management, Management Teacher Perception and Management Pupil Perception, was based on four second level variables each. The procedure implemented in validating the second level variables is to relate scores on these variables based on teachers' perception, and those based on pupils' perception, to each other. This is called step 1 of the construct validation.

Step 1

When intercorrelations between the mentioned second level variables are concerned, we have reported the Cronbach's Alpha coefficients when we discussed consistency of the two first level management variables.

Cronbach's Alpha for second level Management variables - Pupils Perception was .88, which reflects very good consistency. The correlations between different pairs of second level variables varied between .39** and .57**.

Cronbach's Alpha for second level Management variables - Teachers Perception was .75, which is considered a satisfactory consistency. We noticed, however, that the correlations between different pairs of second level variables varied from .31**, between competence in teaching and caring for pupils, to .67**, which is the correlation between competence in teaching and monitoring. Mainly, it is the Caring T variable that correlates less strongly with the other variables. As will be recalled, the consistency of Caring T was not very strong.

Step 2

The validity of our management variables will now be evaluated further by relating these independent variables to other relevant variables that are not part of our nomological network of independent and dependent variables.

Pupil Perception. When Management - Pupil perception is concerned, it was expected that high scores on our variables would be related to

- a. positive behaviour from pupils towards teacher, and to
- b. parents' confidence in teacher.

These relations could be predicted from exchange theory (Blau 1964; La Gaipa 1977), and balance theories (Graumann 1992; Heider 1958; Newcomb 1959,1961).

Three items, all based on four point scales (1-4), were used: 1=low score, 4=high score. As for parents' relations to teacher, this statement was used: "The grown-ups at home trust my teachers" (Mean=3.57, SD=.64, N=2002). For pupils' behaviour towards teachers, we used this statement: "If the need arose, I would help the teachers". (Mean=3.16, SD=.88, N=2002) Also, we will report results related to this statement concerning friends: "If the need arose, I would help my friends". (Mean=3.90, SD=.33, N=2002). Correlations with Management variables - Pupil Perception are given in table 8.5.

Table 8.5 Pupil Perception: Management variables correlated with parents' confidence in teachers (PCT), helping teachers (Helping-T) and helping friends (Helping-F) (N=2002).

	PCT	Helping-T	Helping-F
Management P	.47**	.50**	.18**
Caring P	.42**	.51**	.18**
Competence P	.42**	.42**	.14**
Monitoring P	.28**	.30**	.13**
Intervention P	.35**	.34**	.13**

** p< .01

It is recognized that Management, and all the second level variables based on pupil information correlate significantly and substantially with PCT (pupil perception of parents' confidence in teachers).

These correlations are very similar to those between the Management P variables and Helping Teachers, which means that the more positively pupils evaluate classroom management by teachers, the more they think they would help them if needed.

To evaluate if the relations between Management - Pupil perception variables and Helping Teachers may have been influenced by some kind of a response set on the part of the pupils, the management variables were also correlated with Helping Friends. Although positive and significant, these relations are much weaker than those between Management variables and Helping Teachers, as expected.

Teacher perception. To validate the Management T variables, we constructed a general variable concerning pupils' confidence in teacher as manager of the class (Authority). All items are formulated as statements, and a four point scale was used (1=low, 4=high). The score on the variable is the sum of item scores divided with number of items.

Authority

- The pupils of my class believe I am competent in the subjects I teach.
- The pupils of my class have confidence in my ability to organise the school work.
- The pupils of my class have confidence in my ability to prevent or stop disruptions among the pupils
- The pupils of my class have confidence in my ability to prevent or put a stop to bullying
- The pupils of my class believe that I care about them.

(Mean=3.62, SD=.34, Alpha=.84, N=279)

Although authority may be understood and defined in different ways, it is commonly agreed that confidence is a central aspect of authority. It is also commonly agreed that authority based on confidence from another emerges as the person in question demonstrates competence and empathy towards this other person (French & Raven 1959; Roland 1995; Schmuck & Schmuck 1977). As for classroom management, then, we expect that high scores on the Management T variables correspond with high scores on the authority variable, as teachers perceive it.

As for teachers' perception, the management variables were correlated with Authority. Results are in table 8.6.

Table 8.6 Teacher perception: Management variables correlated with Authority (N=279).

	Authority
Management T	.60**
Caring T	.32**
Teaching T	.61**
Monitoring T	.61**
Intervention T	.37**

** p< .01

Management T is fairly strongly correlated with Authority. All second level variable correlations with Authority are significant. We notice that Caring T, which was not strongly connected with the other Management T second level variables, and Intervention T are not very strongly related to Authority, as perceived by the teachers.

8.8.3 Social structure

Step 1

The first step of the validation procedure is to consider the interrelations between the second level variables concerning social structure of class, and we begin with those based on Pupil Perception.

Pupil Perception. The three variables are "Informal relations between pupils" (Relations P), "Effectiveness of school work" (Effectiveness P) and "Social norms" (Norms P).

Cronbach's alpha, estimating the consistency among the three variables, was .77, which is regarded as satisfactory. The correlations varied between .31** and .49**.

Teacher perception. Cronbach's alpha for consistency among the three variables based on teacher information was .67. The correlations varied between .37** and .49**.

We had expected correlations of medium strength among the three second level variables based on Pupil Perception, and between those based on Teacher Perception, and no great differences between the strength of relations.

Step 2

Step 2 is to relate independent variables to external ones.

Pupil Perception. Three external variables were constructed to validate Structure P variables. These are Pupil wellbeing during lessons (W1) and during breaks (W2), plus Pupils' perceived popularity of bullies in class (PB-P). Four-point scales were used, with 4 as the highest score.

W1, W2 and PB-P are all one-item variables, formulated as statements:

W1: "I enjoy the lessons" (Mean=3.29, SD=.78, N=2002)

W2: "I enjoy the recesses" (Mean=3.60, SD=.67, N=2002)

PB-P: "Pupils who bully others are the most popular in the class." (Mean=3.11, SD=1.03, N=2002)

High scores on Structure P variables indicate that the pupils perceive the relations between pupils in class to be good, that effectiveness of school work is high, and that the opinions of most pupils in class are prosocial. As we consider all these aspects of group life to be central to meet important personal needs on the part of the pupil, for example the needs to belong, to learn and to contribute, we especially expect well being during lessons to be positively and significantly correlated with the Structure P variables. We also expect that well being during breaks is correlated in this way with Structure P variables, but less strongly. The reason why we expect different strengths of the mentioned correlations, is that two of our three variables concerning social structure are rather strongly related to classroom activities.

We expect to find that perceived popularity of bullies is negatively and significantly correlated with Structure P variables. If bullies are perceived as popular, it is reasonable to believe that bullying, and maybe also other associated kinds of negative behaviour, are recognized by the pupils as accepted norms in class. We also believe that this will influence the effectiveness of schoolwork in a negative way, and that at least many of the pupils will perceive the informal relations in class to be rather negative.

Structure P variables are correlated with the three external variables and the results are given in table 8.7.

Table 8.7 Pupil Perception: Structure P variables correlated with Well being during lessons (W1), Well being during breaks (W2) and Popularity of bullies (PB-P) (N=2002).

	W1	W2	PB-P
Structure P	.41**	.33**	.31**
Relations P	.28**	.35**	.30**
Effectiveness P	.32**	.19**	.18**
Norms P	.36**	.27**	.28**

** $p < .01$

Structure P is positively and moderately correlated with both W1 and W2 as expected. We had also expected that Structure P should be more strongly connected with W1 than with W2, because two out of three of the second level variables comprising Structure P are strongly related to classroom activities. The pattern of correlations between second level variables and W1 and W2 reflects this. Relations P is more strongly correlated with W2 than with W1, and Effectiveness P and Norms P are more strongly correlated with W1 than with W2.

Structure P is moderately correlated with popularity of bullies in class (PB-P), as expected. We also notice that all three second level variables are significantly correlated with PB-P, and that the pattern of these correlations seems to be reasonable.

Teacher Perception. Two variables were used to validate Structure T variables. The first one was called Pupil Related Stress (PRS), and the items are adopted from The Job Stress Rating Scale (JSRS), developed by Mykletun (1984). This variable is supposed to estimate to what degree teachers experience stress related to pupil behaviour. For theoretical considerations, see Cooper and Marshall (1978) and Mykletun (1984). Estimates of reliability and validity are given by Mykletun (1984). The variable comprises 4 items, and the teacher should indicate how stressful the behaviour in question was experienced. A six-point scale was used. 0=no stress, and 5=a lot of stress.

- Pupils who disrupt the class
- Pupils who oppose the teachers
- Pupils who have little motivation for school work
- Pupils who threaten class mates

(Mean=1.69, SD=1.05, Alpha=.84, N=279)

Obviously, degree of stress is partly a question of personality (Lazarus 1966; Mykletun 1984). But in addition, the level of stress is influenced by context (Lazarus 1966; Mykletun & Værness 1988; Ursin & Murison 1983).

We expect, then, that PRS would be negatively and significantly correlated with Structure T variables, as the structure variables are highly associated with pupil behaviour and attitudes that teachers appreciate (Roland 1995).

The other variable used was "Popularity of Bullies" (PB-T). This is a one-item variable. The teachers were asked to react to this statement:

"Pupils who bully others, are the most popular in the class."

A four-point scale was used. 1=low score, 4=high score.

(Mean=3.43, SD=.66, N=279).

Structure T variables were correlated with PRS and PB-T, and results are given in table 8.8.

Table 8.8 Teacher Perception: Structure T variables correlated with Pupil Related Stress (PRS) and Popularity of Bullies (PB-T) (N=279).

	PRS	PB-T
Structure T	.53**	.43**
Relations T	.37**	.55**
Effectiveness T	.48**	.55**
Norms T	.39**	.40**

** $p < .01$

Both the first level variable and the second level variables correlated fairly strongly, and in the expected directions with the two external variables. It is also noticed that structure variables and popularity of bullies, based on Teacher Perception, correlated more strongly than parallel variables based on Pupil Perception did.

8.8.4 Family Scale

Ystgaards' Family Support Scale (1993), from which we adopted six out of eight items, was used in an investigation among Norwegian high school students, about 16 - 19 years old. The Family Support Scale was correlated with Hopkins' Symptom Check List (HSCL), estimating psychosomatic symptoms, depression and anxiety (p. 80), and with a two item variable concerning suicidal behaviour.

As expected, both correlations were positive and significant. Correlation with HSCL was .45**, and with suicidal behaviour .35** (Ystgaard 1993). The validity of the original scale seems to be good, then. To improve the consistency of the Family scale, we had to drop two of the items from the original scale. The problems with these two items in our sample may have been caused by the young age of our pupils.

8.8.5 Bullying

Being bullied. In a recent nation-wide Norwegian study, Bru et al. (accepted for publication) investigated the relation between being bullied and emotional problems and musculoskeletal complaints (EM-complaints). These variables were not included in our grade 4-6 investigation.

The nation-wide sample of the Bru et al. investigation comprised 1071 pupils in grade 8, from 55 classes at 24, randomly selected schools from 24 Norwegian municipalities. A questionnaire to the pupils was used, and the exact same instrument for estimating bullying as we have used in grade 4-6 was adopted in the nation-wide investigation. For the purpose of the nation-wide study, Bru et al. composed a subscale for being bullied (BB) comprising four items for BB, a general question and three about methods of bullying (Chronbach's $\alpha=.74$). It was expected from theory and previous research that being bullied would be positively related to self reported EM-complaints. The results demonstrated that being bullied was significantly and rather strongly connected with EM-complaints. In fact, a multiple regression analysis demonstrated that the estimate of being bullied had by far the strongest impact compared to several other individual and relational variables on EM-complaints.

The data were also analyzed when only the general question about being bullied was used, identical with the question selected for our own investigation, and the conclusions were consistent with those referred above. Our own estimate of being bullied, then, correlated significantly with the two variables in the Bru et al. investigation.

Bullying others. In our own grade 4-6 investigation, we constructed a scale covering other kinds of antisocial behaviour than bullying others to validate the variable "bullying others".

"The Antisocial Scale" comprised 9 items concerning disruption during lessons, serious quarrels with teachers, serious quarrels with pupils, truancy, vandalism, stealing, serious fights with pupils, partaking in crowding when other pupils were fighting and bullying teachers (4-point scales, 1=low, 4=high). Scale score is the sum of item scores divided by 9. (Mean=1.33, SD=.29, Alpha=.72, N=2002).

Several previous investigations have demonstrated positive relations between bullying and different conduct problems (Olweus 1985,1991,1993), and there seem to be theoretical reasons to expect such relations, mostly of moderate strength (Dodge 1991).

The correlation between bullying others and scores on The Antisocial Scale was .43**.
(N=978).

8.8.6 Summary: Reliability and validity

Some of the common procedures for evaluating reliability and validity of our instruments were not possible to conduct. For reliability, stability of estimates over time is important, given that the event estimated is stable. Previous research has demonstrated that some staff level and classroom level social issues are quite stable over a considerable period of time, as we explained before. We were not in a position to estimate whether scores on our instruments are stable over time at individual or group level.

As for validity, the predictive power of an instrument is an important criterion of high validity. Also, whether the instrument is related in a meaningful way to some non - test criteria, is a useful way of validating the instrument. We were not able to conduct such tests of validity.

Nevertheless, the reliability and the validity of our instruments were evaluated in other ways.

Reliability. The Rogaland investigation of effects from The Norwegian campaign against bullying, and two pilot studies, provided us with much information about how the procedure used in the previous investigation could be applied in standardizing the conditions for individuals and groups. This proved to be valuable information, as we received no alarming feedback from schools or teachers about problems connected with conducting the investigation.

The consistency of our variables was mainly very good or good, as Cronbach's alpha in most cases varied between .70 and .94. However, three second level variables demonstrated an alpha of .63. All these concerned classroom management. Two of these variables were based on teacher information (Caring T and Monitoring T), while one was based on pupil information (Intervention P). Two first level variables had an alpha between .60 and .70. This is Professional Cooperation and Structure T. We do not consider an alpha between .60 and .70 as a serious problem, but we will keep an eye on the five variables with these levels of consistency. For one thing, it is relevant to consider the validity of these variables closely.

Otherwise, we concluded from previous research that the interrater reliability of our two dependent variables was satisfactory.

Validity. The information for evaluating the content validity of our scales is available by comparing our theoretical considerations with the items of scales. When the five variables with a slightly low alpha are concerned, we are not able to detect any special problems of content validity.

The construct validation of the variables was conducted in two steps. The internal construct validation was conducted by intercorrelating variables that covered a particular domain. All of those correlations, apart from one, were significant. As a main rule, the correlations were moderately strong, as we expected them to be. The one nonsignificant correlation was that between Leadership and Professional Cooperation. Here we were concerned about the validity of Professional Cooperation, as the Leadership scale comprises items from an established instrument.

When we conducted step two of the construct validation, the internal - external validation, we noticed as a general rule that the internal variables correlated moderately or strongly with external variables as expected. Exceptions to this general tendency were that three out

of four second level variables concerning Professional Cooperation; "Peer Supervision", "Project Groups" and "In-service Teaching" did not correlate significantly with one of the two external variables.

Because consistency was slightly low, we were especially concerned about the validity of the three second level variables concerning classroom management; Intervention P, Caring T and Monitoring T. This was also the case for first level variables Structure T and Professional Cooperation. Our internal construct validation uncovered no problems of validity, except from one of those variables, Professional Cooperation as mentioned above.

We also noticed that all the mentioned variables correlated moderately or strongly with the external variables. However, Caring T did not correlate very strongly with the two external variables as did the three other Management T second level variables. And finally, it was recognized that three of the second level variables concerning professional cooperation did not correlate significantly with one of the two external variables.

Our two dependent variables, being bullied and bullying others, correlated significantly with external variables.

8.8.7 Conclusion: Reliability and validity

The majority of our variables seem to be both reliable and valid. Five variables demonstrated a slightly low internal consistency, and one of these, Caring T, was identified as the one out of four second level variables concerning "Classroom Management - Teacher Perception" with the weakest correlation with external variables.

The consistency of Professional Cooperation was also questioned. And when the validity of this variable was concerned, we noticed that Professional Cooperation correlated in the expected way, but not significantly with Leadership. However, Professional Cooperation correlated significantly with Consensus, and with external variables. Only one of the four second level variables comprising Professional Cooperation correlated significantly with one of the external variables. All four second level variables correlated significantly with the other external variable.

In conclusion, then, we will be especially concerned about Caring T, Professional Cooperation, and three of the second level variables related to Professional Cooperation, as

we present our results. But the problems with these variables do not seem to be very alarming.

As a main conclusion, the reliability and validity of our variables seem to be good or fairly good when the evaluation is based on individual responses from teachers and pupils. Since most analyses will be based on school level and class level aggregated data, we feel quite confident about the reliability and validity of our variables. Class level variables based on teacher perception are not, however, aggregated data, but based on responses from one teacher per class. One second level variable based on teacher's perceptions, -Caring T, was questioned above. Therefore, interpretations of results based on Caring T will be made cautiously.

9. Chapter nine: School Level Analyses: Results

The school level analyses concern the relationships between our staff related variables; headteachers' leadership, professional cooperation and consensus on professional matters, and amount of bullying.

9.1 ESTIMATES OF BULLYING, SELECTION OF SCHOOLS AND CONTROL ANALYSIS

The amount of bullying at a school could be estimated in different ways, and we start the school level analyses by discussing this question.

9.1.1 Estimates of Bullying

Descriptive data concerning being bullied are given in tables 9.1. and 9.2. Missing data have not been replaced on the one - item bullying variables.

Table 9.1 Percentages of pupils reporting being bullied at school.

	boys	girls	total		
	N=977	N= 993	N=1970	t(boys-girls)	p
never	49.4	61.8	55.6		
now & then	42.5	33.1	37.8		
weekly	5.4	3.4	4.4		
daily	2.7	1.8	2.2		
Mean	.61	.45	.53	5.2	<.001
SD	.71	.65	.69		

Missing=32

The mean is calculated by giving "never" value =0, "now and then" value=1. "weekly" value=2, and "daily" value=3.

A total of 37.8% of the pupils claimed to have been bullied now and then, 4.4% have been bullied weekly, and 2.2% daily this school year. This result is roughly the same as reported in several investigations from Norwegian primary schools (Chapter 2). The figures for boys

are significantly higher than those for girls. A difference in this direction between girls and boys is also reported in other investigations (Chapter 2).

The figures for bullying others are given in table 9.2.

Table 9.2 Percentages of pupils reporting bullying other pupils at school

	boys N=983	girls N=995	total N=1978	t(boys-girls)	p
never	54.9	75.7	65.4		
now & then	42.4	23.4	32.9		
weekly	1.6	.4	1.0		
daily	1.6	.5	0.8		
Mean	.49	.26	.37	9.6	<.001
SD	.59	.48	.55		

Missing=24

Bullying other pupils at school is conducted now and then by 32.9 % of the pupils, 1.0% conduct bullying weekly, and 0.8 daily. The figures are slightly below those commonly reported from Norway (Chapter 1). The figures for boys are significantly and substantially higher than for girls. This difference between boys and girls is a common result (Chapter 2).

The scores on the two variables, being bullied and bullying others are not normally distributed, which is a common result at pupil level with questionnaires of this type.

9.1.2 Selection of school level estimates: Being Bullied and Bullying Others

There are several alternatives for calculating school and class level estimates of bullying. Estimates can be based on answers for being bullied, on estimates for bullying others, or a combination of these estimates. Also, we must decide in what way the school level and class level estimates should be calculated. One alternative is to use percentages of pupils who are being bullied and who bully others. If this is the alternative chosen, a decision must be made as to how often the incident has to take place for a pupil to be defined as a victim or a bully.

Another alternative is to calculate school level means for being bullied, and for bullying others. In this case, we could give the answer “never” value 0, “now and then” value 1, and

so forth. School level and class level analyses will be implemented in the following as a means to include as much information as possible. Had we calculated our school level estimate on the basis of the percentage of pupils being bullied, or who bullied others for example "once a week or more often", we would have had to realize that only one or two pupils more or less in this category at a school could change the percentage much or very much, depending on the total number of pupils at the school. We have schools where 50 pupils or slightly more are our respondents. This means that the average number of pupils bullied "weekly or more often" would be about three, and that the expected number of bullies would be one in our sample. Especially in the last case, the school level estimates could change dramatically due to only one or two pupils. At class level, this problem would have been even more serious.

Therefore, we have decided to include also the "now and then" category. However, as we regard frequency of being bullied, or bullying others, as an estimate of how serious the bullying is, we will weight the categories "never", "now and then", "weekly" and "daily" as 0, 1, 2, and 3 respectively, and calculate the school means and class means for being bullied and bullying others based on this.

9.1.3 Selection of schools

As will be recalled, a main interest is to analyze differences between schools on bullying, and to investigate some reasons for such possible differences.

Since the number of teachers, and also responding teachers is not very high at school level, we considered it important to be rather restrictive when we selected the schools from our total sample to be included in our school level analysis. Both the number of responding teachers and the percentages of the total number of teacher respondents are important. If the number of responding teachers is small at a school, even one or two extremes may have a great impact on the mean score at this school. Since the teachers are asked about staff issues, an extreme response could have little or nothing to do with such issues, but rather be caused by some specific personal experiences or attitudes. We were not in a good position to evaluate such possibilities as we used questionnaires. With a small number of respondents, other methods of collecting data on staff issues may be more favourable.

If the percentage of responding teachers is low, this raises the general problem of representativeness. It is not unlikely that responding teachers evaluate staff issues

differently from those not responding. Moreover, low versus high percentages of responding teachers may itself represent staff issues that are not reflected in the answers of the responding teachers. To get reliable estimates of staff issues, we decided that the number of teacher respondents had to be more than 10 and at least 50% of the total number of teachers at the school.

The teachers have supplied information about staff issues, and it is these staff issues that will be related to school level estimates of bullying.

The pupils supplied us with information about being bullied and bullying others. As we will report in more detail later, we found many significant differences in the mean level of bullying between pairs of classes within schools. Due to this, it was decided that the investigation had to be conducted in at least three classes if a school was to be included in the school level analysis. Also, the number of pupil responses at a school had to be at least 50 on the two key questions, being bullied and bullying others

When we combined these criteria, we had to exclude seven out of twenty-two schools. We were left with 15 schools for the school level analyses.

9.1.4 Distribution of school level results

The school means for bullying others (BO) and for being bullied (BB) are reported in table 9.3.

Table 9.3 School means for bullying others (BO) and for being bullied (BB), standard deviations and number of responding pupils.

School	BO	SD	N	BB	SD	N
1	.31	.48	139	.26	.73	138
2	.34	.48	85	.49	.63	85
3	.33	.52	125	.49	.61	122
4	.35	.58	111	.55	.63	110
5	.38	.54	234	.62	.69	235
6	.28	.47	106	.36	.59	106
7	.40	.56	91	.48	.69	88
8	.43	.57	109	.54	.69	109
9	.41	.52	172	.41	.63	171
10	.35	.54	140	.59	.64	140
11	.42	.52	79	.86	.85	80
12	.36	.59	89	.51	.64	89
13	.35	.60	89	.51	.76	89
14	.39	.63	64	.59	.73	64
15	.50	.62	80	.70	.77	79
Sample	.37	.54	1830	.54	.68	1822

The sample mean for bullying others (BO) is .37. The lowest school mean is .28, and the highest is .50. The sample mean for being bullied (BB) is .54. the lowest school mean is .26, and the highest is .86. At sample level, $SD=.54$ for bullying others. For being bullied, $SD=.68$.

It is necessary not to confuse the correlation found at the individual level between being bullied and bullying others (.28), when we observe that schools that are low, medium or high on BB, do not necessarily hold the same position on BO. School level estimates on BB and BO correlated .58*, which means that variation on one of the variables predicts about one third of the variance on the other. We had expected the correlation between BB and BO at school level to be much higher. The rather limited correlation between school level estimates of bullying others and being bullied is an interesting observation, but it raises important questions about what pairs of schools it is valid to compare concerning staff issues. It could be pairs that are significantly different on BB, BO or on both BB and BO.

If we for example compare schools that are only significantly different on BB, we risk that they are not different on BO. We could also in fact risk that they are significantly different on BO, but in an inverted way compared to the difference for BB.

We could of course have compared schools significantly different on only BB, and controlled for significant and non-significant differences on BO, and vice versa. The number of pairs of schools, and/or groupings of schools would then have been very high, and analyses of possible differences on all variables estimating staff issues at all of these pairs of schools would have been too space consuming.

Because of the limited correlation between school level estimates of BB and BO, we have decided to compare pairs of schools that may be different on both BB and BO.

9.1.5 Differences between schools on BB and BO

Our main interest, then, is to identify schools that may be significantly different from each other on the school mean for both being bullied (BB) and on the school mean for bullying others (BO). In addition, they should be different from the corrected sample means on both BB and BO. The corrected sample mean is calculated by first excluding the school that should be compared with the sample.

By using this procedure, we were able not only to compare pairs of schools high and low on bullying on estimates of staff issues, but also to compare each of the high and low bullying schools with corrected sample means for our estimates of staff issues.

We decided that schools had to be significantly different from each other at a 5% level, and significantly different from the corrected sample at a 10% level on both BB and BO to be included in the analyses.

In our sample of 15 schools, only one pair of schools was significantly different from each other on both BB and BO and also significantly different from corrected sample means on both these estimates. We did not identify any other school that was significantly different from corrected sample means on both BB and BO.

Table 9.4 The two outlier schools. Mean levels of BO and BB, standard deviations and number of responding pupils

	BO	SD	N	BB	SD	N
Low-Low	.28	.47	106	.36	.59	106
High-High	.50	.62	80	.70	.77	79

The Low-Low school is number 6 in table 9.3. This school had a mean of .28 for bullying others, and a mean of .36 for being bullied. The high-high school is number 15 in table 9.3. The school high on bullying had a mean for bullying others of .50. On being bullied, the school mean is .70.

9.1.6 Family background, Location, and School size

Family background. Relational problems within the family are likely to be connected with the tendency to bully others and perhaps with the role as a victim of bullying, as has been demonstrated in our review of previous research (Chapter 2). School level differences in bullying may thus at least partly be explained by school level differences on family conditions.

We found a significant, negative connection between the individual scores on the Family Scale and bullying in our sample, which made it necessary to compare the school level means on the Family variable for our two selected schools. Results revealed no significant difference between the two schools on this variable.

Location, and size of school. As we have reported in our review chapter (Chapter 2), no significant connection has been found in Norway between degree of urbanization of the school's catchment area and bullying, nor between size of school and bullying.

The schools in our sample are, as we have described in chapter 8, so-called ordinary primary schools. Very small schools based on mixed age classes, which are normally located in rural areas, are not included in our sample. Our 15 schools were located in small towns, towns or in a city of about 70 000 inhabitants.

We grouped the schools according to whether they were located in:

- a. small towns
- b. towns
- c. city

and found no significant relationship between location and bullying among the pupils.

When we correlated school level estimates of bullying with total number of pupils at school, the correlations were not significant and almost zero. Both the LL and HH schools are of medium size and located in towns, and the catchment areas are from the towns and semi rural districts.

9.1.7 Conclusion

We have identified two schools that are significantly different from each other on both BB and BO. The school high on bullying is also significantly above the corrected sample means on BB and BO, and the school low on bullying is significantly below the corrected sample means on both these estimates.

The two schools are not significantly different on school mean on the Family Scale, they have similar catchment area, and compared to other schools in our sample, they are both of medium size. In Norway, and in our sample, the location of schools and the size of schools are not associated with level of bullying among the pupils.

It is these two schools that will be compared for school level estimates concerning head-teacher and teacher-teacher relations. As the two schools are significantly different from the corrected sample means on both BB and BO, these schools will also be compared with corrected sample means on staff issues.

9.2 *THE STAFF LEVEL VARIABLES AND BULLYING*

9.2.1 Leadership and bullying

The two selected schools will now be compared on the Leadership variable. We will also compare the two schools with the corrected sample means on this variable. Number of responding teachers, the mean scores, standard deviations and statistics are reported in table 9.5.

Table 9.5 Leadership.

	N	MEAN	SD
Sample	205	1.01	1.08
Low-Low	16	.59	.59
High-High	14	3.23	1.23
Statistics:	t	p	
Low-Low/High-High	7.76	<.001	
Low-Low/Cor.sample	1.61	n.s	
High-High/Cor.sample	9.14	<.001	

As will be recalled, the scoring system on the Leadership Scale is: 0=no stress, while 5=much stress. We observe that the sample mean on Leadership is 1.01, which we consider as rather low. This should indicate that the teachers in our sample do not experience much stress related to the headteacher's style of leadership.

At the Low-Low school, which is low on both estimates of bullying, the mean level of stress is very low. On the High-High school, we consider the stress to be high. The difference between the two schools is substantial and significant.

The Low-Low school is below the corrected sample mean on stress related to headteacher's leadership, but the difference is not significant. The High-High school is substantially and significantly above the corrected sample mean on this variable.

In conclusion, then, the High-High school on bullying is five to six times higher on teacher stress related to the headmaster's style of leadership than the Low-Low school, and significantly above this school. The Low-Low school on bullying is low on Leadership, but not significantly below the corrected sample mean. The High-High school is more than three times above the corrected sample mean, and significantly above this mean.

9.2.2 Professional cooperation

Professional Cooperation is a first level variable. The four second level variables related to Professional Cooperation are Cooperative Planning Work, Project Groups, Peer Supervision and In-service Teaching.

Professional cooperation (I)

Cooperative Planning Work. This is the first variable concerning professional cooperation, and it estimates whether teachers cooperate about planning their lessons etc. The mean scores, standard deviations, number of responding teachers and statistics are given in table 9.6.

Table 9.6 Cooperative Planning Work

	N	Mean	SD
Sample	205	3.70	1.10
Low-Low	16	3.96	.82
High-High	14	3.26	.96
Statistics:		t	p
Low-Low/High-High		2.14	<.01
Low-Low/Cor.sample		.95	n.s.
High-High/Cor.sample		1.55	n.s.

The sample mean demonstrates that it is quite common to cooperate in planning in the way we have defined it.

The Low-Low school is better, but not significantly, than the corrected sample on this variable. The High-High school is below the corrected sample mean, but the difference is not significant. The Low-Low school is significantly above the High-High school.

Professional cooperation (II)

Project Groups. This variable concerns project groups among teachers to improve aspects of the school. Key figures are given in table 9.7.

Table 9.7 Project Groups

	N	Mean	SD
Sample	205	3.11	1.31
Low-Low	16	3.19	1.07
High-High	14	2.43	1.33
Statistics:		t	p
Low-Low/High-High		1.75	n.s.
Low-Low/Cor.sample		.25	n.s.
High-High/Cor.sample		2.02	<.05

As can be seen from the sample mean, to work with other teachers in project groups to improve some aspects of school life is fairly common.

The Low-Low school is only slightly better than the corrected sample, and the difference is not significant. The High-High school is significantly below the corrected sample. This school is also below the Low-Low one, nearly to the same degree as it is below corrected sample mean, but the difference between HH and LL is not significant.

Professional Cooperation (III)

Peer Supervision. This variable concerns structured communication in small groups of teachers about events related to their work with pupils, parents etc..

Table 9.8 Peer Supervision

	N	Mean	SD
Sample	205	2.33	1.44
Low-Low	16	2.31	1.68
High-High	14	1.67	1.29
Statistics:		t	p
Low-Low/High-High		1.17	n.s.
Low-Low/Cor.sample		-.06	n.s.
High-High/Cor.sample		1.79	n.s.

A sample mean of 2.33 on a scale going from 0 to 5 does not demonstrate a high level of peer supervision among the teachers.

The Low-Low school has a mean score very close to the corrected sample mean. The High-High school is below the corrected sample mean, but not significantly so. The High-High school, then, is below the Low-Low one, but not significantly.

Professional Cooperation (IV)

In-service Teaching. This is our last second level variable concerning professional cooperation, and it estimates whether teachers give prepared lessons to each other etc. about professional matters.

Table 9.9 In-service Teaching

	N	Mean	SD
Sample	205	2.24	1.33
Low-Low	16	2.77	.90
High-High	14	1.57	.97
Statistics:		t	p
Low-Low/High-High		3.52	<.001
Low-Low/Cor.sample		1.66	n.s.
High-High/Cor.sample		1.94	n.s.

It does not seem to be very common for teachers to give prepared lessons to the other members of the staff at in-service days. It is not unlikely that a great deal of confidence between the members of staff is needed to make this kind of professional cooperation a common practice.

The Low-Low school has a higher score than the corrected sample mean, but the difference is not significant. The High-High school has a lower score than the corrected sample mean, but the difference does not quite reach significance. The Low-Low school has a significantly higher score than the High-High school.

Professional Cooperation (V)

Professional Cooperation. This is our first level variable concerning professional cooperation, and it is based on the four second level variables discussed above.

Table 9.10 Professional Cooperation

	N	Mean	SD
Sample	205	2.86	.90
Low-Low	16	3.06	.81
High-High	14	2.23	.78
Statistics:		t	p
Low-Low/High-High		2.84	<.01
Low-Low/Cor.sample		.97	n.s.
High-High/Cor.sample		2.67	<.01

According to the table above, the mean of the Low-Low school is better than the corrected sample, but the difference is not significant. The High-High school has a significantly lower score than the corrected sample mean. The difference between the two schools is significant also.

These results related to the first level variable concerning professional cooperation demonstrate a tendency that we also found when the different aspects of professional cooperation were analyzed. The Low-Low school was found to score higher than the corrected sample, but this difference was not great and not significant. The school high on bullying was found to score significantly lower than the corrected sample mean. And finally, the two schools are significantly different on professional cooperation.

If we compare these results to those for Leadership, we find that the tendencies are similar albeit stronger for the Leadership Scale.

9.2.3 Consensus

Our final variable concerning staff issues is Consensus. This first level variable concerns whether teachers agree on professional matters. Key figures are in table 9.11.

Table 9.11 Consensus.

	N	Mean	SD
Sample	205	3.45	.79
Low-Low	16	3.40	.60
High-High	14	2.55	.98
Statistics:		t	p
Low-Low/High-High		2.89	>.01
Low-Low/Cor.sample		.16	n.s.
High-High/Cor.sample		4.45	>.001

On a scale from 0 to 5, a sample mean of 3.45 may be interpreted as a fairly high agreement on professional matters.

We observe that the Low-Low school has a mean score very close to the corrected sample mean. The school high on bullying is low on consensus compared to the corrected sample mean, and the difference is significant. The two schools are significantly different from each other on consensus. These results on consensus are fairly similar to those concerning Professional Cooperation.

9.3 *DISCUSSION*

Our main interest was to identify schools significantly different from each other and from the corrected sample means on bullying, and to compare these schools with the corrected sample means in regard to leadership, professional cooperation, and consensus about professional matters.

In our selected sample of 15 primary schools in Norway, we found school level variations in the amount of bullying among pupils in grades 4-6. Such a variation is found both when we estimate the level of being bullied (BB), and for bullying others (BO).

We noticed that the correlation between school level estimates of bullying others and being bullied was limited. This limited correlation is interesting, but it also raises problems of methodology when we attempt to identify schools that are significantly different concerning the amount of bullying. We came to the conclusion that only schools that were significantly

different on both BB and BO, and also significantly different from the corrected sample means, should be compared.

We identified two schools that were significantly different from each other, and from corrected sample means on both BB and BO. No other schools were significantly different from corrected sample means on both BB and BO.

9.3.1 Principal results

A main result is that the two schools that were significantly different from each other on bullying, the Low-Low school and the High-High one, were also very different from each other on Leadership. In fact, this difference was striking in that teacher stress from the style of leadership of the head was five to six times higher at the High-High school than at the Low-Low one. Also, this estimate was more than three times higher at the High-High school than the corrected sample mean. The Low-Low school was below the corrected sample mean on Leadership, but the difference did not reach significance.

The High-High school was also significantly below the Low-Low school on Professional Cooperation, but not on two out of four aspects of professional cooperation. The High-High school was also significantly below the corrected sample mean on Professional Cooperation, but only on one out of the four aspects of professional cooperation. The Low-Low school was only slightly, and not significantly, better than the corrected sample mean on Professional Cooperation. The consistency and validity of Professional Cooperation and the validity of three of the second level variables comprising Professional Cooperation, were discussed.

Also on Consensus, the High-High school was significantly below the Low-Low school, and also significantly below the corrected sample mean for this variable. The Low-Low school was very close to the corrected sample mean.

9.3.2 Preliminary conclusions

We had not expected the low correlation between school level estimates of being bullied and bullying others. This low correlation is interesting but it strongly limits our possibilities

for comparing schools low and high on bullying in an adequate way. Our conclusions, then, have to be tentative.

As for all our three first level variables, Leadership, Professional Cooperation and Consensus, the High-High school had significantly lower mean scores than the Low-Low school. This indicates at least, that each of these three qualities at school level contributes to a significant difference between the two schools on amount of bullying among the pupils in grades four to six.

The other way of analyzing our data, was to compare each of the two schools with corrected sample means on BB and BO, as we consider the corrected sample mean as a solid reference for results at a single school. As we were not able to compare more than two schools, this became an especially important reference. In conclusion, the school low on bullying was not significantly better than corrected sample means on our three first level variables concerning staff issues, but the school high on bullying was significantly worse on all these three estimates than the corrected sample.

A possible explanation for why the High-High school was significantly different from the corrected sample on the three first level variables estimating staff issues, while the Low-Low school was not, may be that the High-High school was a more extreme negative outlier on bullying, than the Low-Low one was as a positive outlier, according to differences from sample means on both BB and BO.

We cannot say from our analyses that schools very low on both BB and BO also have very good scores on Leadership, Professional Cooperation and Consensus, simply because we did not identify such schools very low on both estimates of bullying in our sample.

But at the other extreme, in the High-High school, we did find significantly worse scores than the corrected sample means for both Leadership, Professional Cooperation, and Consensus. Although not as important, we also found that the High-High school was significantly worse on all three estimates than the Low-Low school. There are reasons to believe, then, that schools high on bullying suffer from poor leadership, little professional cooperation and low consensus about professional matters.

Especially, the High-High school had a very low score on Leadership. And interestingly, the Low-Low school had a fairly high score on this estimate, which turns our attention to the

questions of interrelations and causality between our three main estimates of staff level issues.

9.4 STAFF ISSUES AND MANAGEMENT OF CLASS

As our next chapter will concern how teachers' management of the class, directly or indirectly, may be related to class level estimates of bullying, a relevant question is whether classroom management is related to staff level variables. This question also concerns the relationship between school level and class level issues.

We have information from the class teachers about how they perceive four aspects of their own management of the class, those outlined in chapter 6. These four second level variables of classroom management and a first level variable based on these four, will be presented and discussed in our next chapter. For now, Management T, which is the first level variable, will briefly be related to teachers' perception of staff level issues: leadership by the headteacher, professional cooperation and consensus. As our class level analyses will be conducted for all our 22 schools, grades 4 - 6, the analyses below comprise the individual answers from the responding class teachers of all our classes.

Initially, we will present the correlations between Management T, Leadership (teacher perception of leadership on the part of the headteacher), Professional Cooperation and Consensus.

Table 9.12 Coefficients of correlation between Management T , Leadership, Professional Cooperation (PC) and Consensus. (N=99).

	Leadership	PC	Consensus
PC	-.16		
Consensus	-.44**	.55**	
Management T	-.04	.35**	.28**

It will be remembered that "Leadership" is an estimate of teacher perceived stress related to the leadership of the headteacher. A high score, then, is negative. We notice that the correlation between this variable and Management T is nearly zero and nonsignificant.

On the other hand, the correlation between Professional Cooperation and Management T is positive, significant and substantial. Also the correlation between Consensus and Management T is positive and significant.

We can conclude, then, that both Professional Cooperation and Consensus within staff are positively and significantly related to how class teachers perceive the quality of their own classroom management. Leadership on the part of the headteacher is not, however, related to Management T. But we recognize that teacher stress related to headteacher's leadership is negatively, significantly and rather strongly related to Consensus, which was related to Management T. Leadership on the part of the headteacher is also negatively related to Professional Cooperation, but not significantly.

The intercorrelations between the staff level estimates, and the relations between these and Management T, raise the question of how great the multiple correlation between the staff level estimates and Management T may be. In addition, it is relevant to estimate the relative strength of relations between each of the three staff level variables and Management T.

With Management T technically a dependent variable, we conducted a stepwise multiple regression analysis with the three staff level variables as independent variables. Professional Cooperation (PC) appears as step 1 in the analysis. The Multiple $R=.35^{**}$ at step 1, is, of course, identical to the correlation between PC and the dependent variable. At step 2, Consensus enters, and Multiple R increases to $.36^{**}$. Finally Leadership enters at step 3, and Multiple R increases to $.37^{**}$. It can be recognized, then, that Multiple R increases only slightly when entering Consensus and Leadership.

The Multiple $R=.37^{**}$ is the total impact of the three independent variables on the dependent one. This means that the three independent variables together predict about 14% of the variance of the dependent variable.

The relative strength of relations between each of the three staff level variables and Management T was also estimated. The results are presented in table 9.13.

Table 9.13 Standard multiple regression of the independent variables Leadership, Professional Cooperation (PC) and Consensus, and dependent variable Management T. (N=99).

	Beta	VIF	T	p
PC	.27	1.45	2.38	.02
Consensus	.16	1.76	1.32	.19
Leadership	.07	1.21	.71	.48

Before we deal with the relations between the variables in more detail, we should consider the possible problem of collinearity between our three independent variables and the dependent one. Total collinearity between two or more of the independent variables means that the regression lines are identical. In cases of high collinearity, the results of the multiple regression analyses may be very misleading. A commonly used estimate of degree of collinearity is the "variance inflation factor" (VIF), reported in table 9.13. VIF can vary between 1.0, which means no collinearity, to approximately 50, which is complete collinearity. If VIF is larger than 10, the problem of collinearity is regarded to be serious (Kleinbaum, Kupper, & Muller 1988, pp. 206-17). As is recognized in table 6.13, the problems of collinearity are minimal.

Considering the Beta values, which are the standardized regression weights between each of the three independent variables and Management T, it is recognized that Professional Cooperation has the strongest relative impact, with a Beta of .27. This relation is significant ($T=2.38$, $p=.02$). The Beta of .16 between Consensus and Management T is not significant ($T=1.32$, $p=.19$). We recognize, then, that the significant relation between Consensus and Management T, reported in table 9.12., is a not significant within a Multiple regression solution with our two other independent variables included in the analysis. A reason for these different results, are the intercorrelations between the three independent variables.

Finally, we notice that the Beta of .07 between Leadership and Management T is not significant ($T=.71$, $p=.48$), and small. This does not necessarily mean that Leadership is not related to management in class. If we consider a causal impact from Leadership on the two other staff issue variables, Leadership may have an indirect relation with management of class, via an impact on one or both of these two other staff issue variables. And as reported in table 9.12., the relationship between Leadership and Consensus is significant. It is not unlikely that Leadership on the part of the headteacher influences consensus within the staff. And since the two staff issue variables Consensus and Professional Cooperation are highly

correlated, leadership on the part of the headteacher may well be indirectly related to management of class. However, as table 9.13. demonstrates, Professional Cooperation within the staff is the only variable that is directly related to Management T in a significant way, when all three staff issue variables are included in a multiple regression analysis.

Going back to the multiple regression coefficient of .37, which is significant, we should consider the causal direction of this relation between staff issue variables and Management T. In the first place, it may appear to be obvious that we are dealing with a moderate causal impact from staff level issues to management of class. However, we do not wish to be too conclusive about this. It may well be that teachers who regard themselves as good managers of a class also contribute to perceived professional cooperation and consensus within a staff in a better way than those teachers who do not regard themselves as competent in class management. Influence on, or perception of, headteacher's style of leadership may also be constrained in this way. The problem of a possible response set may also be considered. A field experiment may have provided information needed to investigate the causal relationship between the staff level issues and management of class in more depth.

As we now move to our class level analyses, we should keep in mind that one of our main variables, management of class, might have been influenced by staff level issues. However, our central point will be how variations on management and other class level variables are related to class level estimates on bullying.

10. Chapter ten: The Class Level Analyses: Results

While chapter nine concerned headteacher-staff interactions at schools high and low on bullying, this chapter deals with teacher-pupil interactions, and how class level estimates of such interactions may be related to class level scores on BB and BO.

In the first part of the chapter, we will present our sample of classes, and discuss some methodological questions. In the second part, the intent is to obtain answers to two main questions:

A. Will there be a relationship between quality of management on the part of the teachers of class, and class level estimates of bullying?

B. Will there be a relationship between aspects of social interaction within a class, and class level estimates of bullying?

Finally, also at class level, we will relate bullying to a simple estimate of home conditions of the pupils.

10.1 THE SAMPLE OF CLASSES

10.1.1 Number of schools, classes and pupils

As will be recalled, we excluded 7 out of a total of 22 schools from the school level analysis, because of the low number of responding pupils/and or teachers. In addition, a low number of responding pupils was mainly due to whole classes not taking part in the investigation, especially if this happened at schools with few classes. Therefore, the school level analyses were not conducted for 7 of the schools in our total sample of 22 schools. Our present consideration is whether these 7 schools should also be excluded from the class level analyses.

We compared the 7 schools that were excluded from the school level analysis, with those 15 schools that were included on amount of bullying. The results are in table 10.1.

Table 10.1 Schools that were included and schools excluded in the school level analysis. Estimates of bullying others (BO), and being bullied (BB).

Schools	Bullying others			Being bullied		
	pupils	mean	SD	pupils	mean	SD
Included	1713	0.37	.54	1706	0.54	.69
Excluded	275	0.38	.58	273	0.47	.69
$t=.31, p=.75$				$t= 1.56, p=.12$		

For bullying others (BO), the mean of the schools included in the school level analysis is almost the same as the mean of those 7 schools that were excluded. As for being bullied, we observe that the mean of the 7 excluded schools is slightly below that of the 15 included schools, but the difference is not significant. We also compared included with excluded schools on Family, and we did not find any difference ($T=.46, p=.65$).

As for the analysis at class level, we could not see any good reason for not including all schools. The total number of schools then, is 22. At these schools, a total of 118 classes took part in the investigation. The number of participating pupils is 2002. Identification of gender is missing for 12 pupils, otherwise 1002 are girls, 988 are boys.

10.1.2 Size of classes

In the classes, the number of pupils that took part in the investigation varied from 6 to 28.

Table 10.2. demonstrates the distribution of size of the classes, defined by number of participating pupils.

Table 10.2 Distribution of size of classes in sample, defined by number of participating pupils

pupils in class					
6 - 9	10 - 13	14 - 17	18 - 21	22 - 25	26 - 28
3.5%	15.9%	42.5%	20.4%	15.0%	2.7%

The mean number of participating pupils in a class is about 17, and we observe that 63% of the classes have between 14 and 21 participating pupils. It is not common that a class has fewer than 10, or more than 25 participating pupils.

We have reported and discussed the problem of missing data for the school level analyses in chapter 8. There are two main reasons for missing data, - some pupils were not permitted to take part in the investigation by parents, or they were absent the day of the investigation. In addition, a few completed questionnaires could not be analyzed, because of incomplete answers.

Not very surprisingly, the range of variation between classes on rate of missing data is greater than the variation between schools. Some 45 % of the classes had a rate of missing data between 0 and 10%, and about 37% of them had a missing rate between 11 and 20%. About 10% of the classes had a missing rate between 21 and 30%. In the remaining classes, the missing rate varied from 31-40%, except for one class, in which the percentage of missing data was 59%.

10.1.3 Classes with responding and not responding teachers

As for these 118 classes, a total of 99 class teachers answered the teacher questionnaire. Thus, for 99 classes, we have information both from the pupils and from the class teacher, whereas from 19 classes we have data from the pupils only.

We investigated whether the level of bullying might be different in the 99 classes of responding teachers, compared with the 19 classes from which we had information from the pupils only. It was found that for bullying others, the mean of the 19 classes is slightly below that of the 99 classes. The two means are 0.32 and 0.39 respectively, but this difference is not significant ($T=1.52$, $p=.13$). The mean of the 19 classes on being bullied is 0.50, and that of the 99 classes is 0.55. The difference is not significant ($T=.79$, $p=.43$).

Finally, we noticed that the means of the Family Scale were 3.40 and 3.45 for the 19 and the 99 classes respectively. This difference is not significant either ($T=1.35$, $p=.18$). There seems to be sufficient reason to include all classes when we carry out analyses based on pupil information.

10.2 INITIAL RESULTS

10.2.1 Class level data

For bullying, we aggregated individual data to class level data by adding the scores of the pupils, and by dividing the sum with the number of responding pupils in class. This is also the procedure used for pupils' answers about aspects of management and aspects of social structure of the class.

Teachers' answers are not aggregated in any way as answers from one teacher per class, the class teacher, were used.

10.2.2 Class level scores on BO and BB

As a first step, we will report the distribution of class level scores on bullying others and being bullied. In table 10.3., we report some key figures.

Table 10.3 Class level estimates of bullying others (BO), and being bullied (BB). Means, standard deviations, and minimum and maximum scores (N=118).

	mean	SD	min	max
BO	.38	.18	.00	.88
BB	.54	.25	.00	1.12

As the standard deviations, and minimum and maximum scores demonstrate, there are substantial differences between classes on both bullying others and on being bullied.

The difference between classes is greatest on BB, according to the SD's. Also, the difference between maximum and minimum score is greater for BB than BO. In fact, the minimum score for both BO and BB is zero.

10.2.3 Relation between BO and BB

It will be recalled that the correlation between school level estimates of BO and BB was .58** (Chapter 9). At school level, we had expected the correlation between BO and BB to be higher.

At class level, the correlation between BO and BB is .40**, which is even weaker than the correlations at school level. This rather weak correlation between BB and BO at class level could probably partly be explained by the pattern of bullying within and across classes.

10.2.4 Bullying within and across classes

In our sample, most of the victims report that they are bullied by pupils from their own class, but there are obviously a lot of victims who are bullied by pupils from other classes. We will report the answers from all those pupils who have reported being bullied “now and then” and more often.

A total of 40.3% of the victims report that they are bullied by pupils from their class only. Also, 19.7% of the victims say that they are bullied by pupils from other classes only, and 29.1% of the pupils report being bullied by pupils from both their own class and by pupils from other classes. The rest of the victims, 10.9%, did not answer this question.

From this, we can see that more than half of those victims who have answered the question, are bullied exclusively or also by pupils from other classes. We will return to this when we conduct our class level analyses, as this result about being bullied by pupils from other classes is important when evaluating our class level results.

10.2.5 Presentation of the data

In principle, the class level estimates of management and of social structure must be related to class level estimates of being bullied (BB) and bullying others (BO). In the same way as for the school level analyses, we could attempt to compare pairs of classes that were significantly different on bullying, but since the number of classes was so high (118), this procedure was considered not to be a good alternative as the number of pairs of classes that had to be compared would have been extremely high ($118 \times (118 - 1)/2 = 6903$).

We could also attempt to group classes that were for example high, medium, and low on BB and/or BO and compare these groups with each other on management and social structure. But to do this so that each of the high ones was significantly different from each of the

medium ones, and so forth, would have excluded a great number of classes from the analyses even if each of the classes in each group had to be significantly different from each of the ones in the other groups on only BB or BO. But obviously, this procedure could have been an alternative.

Furthermore, we could have grouped classes according to whether they were significantly different from each other on management and/or social structure and compared them on BB and BO. Since we wanted to relate several estimates of both management and social structure to BB and BO, and since these estimates are only moderately intercorrelated, this procedure would have been very space consuming, and probably rather confusing.

We considered that to correlate class level estimates of management and social structure with class level estimates of BB and BO, would be the best way to present our data. Our main analyses will comprise all our classes together, but as an illustration, we will also report correlations for class levels 4, 5, and 6 separately.

10.2.6 Possible impact from other variables

Before presenting the main results, we want to mention that the class level estimates of bullying could be influenced in a systematic way by other variables than those investigated by us. Size and location of schools are two important variables that could influence differences between schools at class level. If so, this would have confused our class level analyses. However, as will be recalled, no such connection between bullying and size or location of schools has been found to exist. In the same way, size of class could influence the class level estimates of bullying, and confuse our analyses. But consistent with previous research, the correlation between our class level estimates of bullying and size of class was almost zero in our sample.

We have also considered home conditions of the pupils, and found class level variation on this variable which in fact is connected to class level estimates of bullying in our sample. We will return to the influence of this variable later on.

In conclusion, classes in our sample are highly different on estimates of bullying others, and especially on being bullied.

Our next question, then, is whether some of this variation between classes on BO and BB is related to the way teachers manage the classes or to the social structure of classes.

10.3 MANAGEMENT AND BULLYING

Class level estimates of bullying others (BO) and being bullied (BB) will now be related to the management variables. There are four second level variables based on pupil perception; Caring for Pupils (Caring P), Competence in Teaching (Teaching P), Monitoring P and Intervention P. There is also a first level variable based on pupil perception, Management P. Parallel to these variables based on pupil perception, there are variables based on teacher perception. These are Caring T, Teaching T, Monitoring T, Intervention T, and the first level variable Management T.

It is important to note that each class is taught by several teachers. The normal number of teachers that work in each class during a period of one week in our sample is four. We cannot say, then, that the class teacher's way of managing the class is representative for all teachers that the class meets. And this of course, will be a problem when we estimate the connection between aspects of management, based on the class teacher's information and bullying among the pupils. We will however, report the results based on information from both pupils and class teachers.

10.3.1 Caring for pupils

Tables 10.4. and 10.5. concern relations between caring for pupils and bullying. Table 10.4. is based on information from the pupils about "the teachers of class" on caring for pupils, while information about caring for pupils in table 10.5. comes from the teacher.

Table 10.4 Correlations between Caring P (pupil perception) and bullying (N=118).

	all	level 4	level 5	level 6
BO	-.17	-.42*	.02	-.04
BB	.03	-.44**	.11	.03

Table 10.5 Correlations between Caring T (teacher perception) and bullying (N=99).

	all	level 4	level 5	level 6
BO	-.07	-.26	-.09	.15
BB	-.01	-.16	-.02	.06

In table 10.4., which is based on information from pupils, we observe a negative, but not significant connection between Caring P and class level estimates of bullying others (BO). Between Caring P and being bullied (BB), the connection is almost zero. Otherwise, we notice significant and strong connections at level 4 between Caring P and both BO and BB. At grade 5 and 6 the relations are very weak and not significant.

Table 10.5., is based on information from class teachers about caring for pupils. The table demonstrates a similar pattern of connections as table 10.4., but the relationships are weaker. We observe a weak nonsignificant connection between Caring T and BO, and almost no connection between Caring T and BB. At level 4, the connections are stronger, but not significant.

10.3.2 Competence in teaching

In tables 10.6. and 10.7., competence in teaching is related to class level estimates of bullying. Competence P is based on information from pupils, while Competence T is based on information from teachers.

Table 10.6 Correlations between Competence P (pupil perception) and bullying (N=118).

	all	level 4	level 5	level 6
BO	-.24**	-.42*	-.07	-.18
BB	.03	-.44**	.08	-.22

Table 10.7 Correlations between Competence T (teacher perception) and bullying (N=99).

	all	level 4	level 5	level 6
BO	-.02	.14	-.10	.05
BB	.08	.24	-.12	.05

According to information from the pupils, as shown in table 10.6. Teaching P is negatively and significantly related to class level estimates of bullying others. This relationship is significant and strong at level 4, and nonsignificant at levels 5 and 6.

As for being bullied, the relationship is minimal for the whole sample. But at level 4, the relationship between Teaching P and pupils reporting being bullied is negative, significant, and strong. At level 5, the relationship is weakly positive, but nonsignificant. At level 6, the correlation is negative, but not significant.

The results presented in table 10.7., demonstrate weak and nonsignificant relationships between competence in teaching based on teacher information (Teaching T) and class level estimates of BO and BB.

10.3.3 General monitoring

In the following, we will relate monitoring to class level estimates of bullying.

Table 10.8 Correlations between Monitoring P (pupil perception) and bullying (N=118).

	all	level 4	level 5	level 6
BO	-.22*	-.07	-.27	-.12
BB	-.08	-.09	-.12	-.48**

Table 10.9 Correlations between Monitoring T (teacher perception) and bullying (99).

	all	level 4	level 5	level 6
BO	.01	-.08	-.06	.26
BB	.11	.06	.10	.13

In table 10.8, based on pupil information, we observe a negative and significant correlation between Monitoring P and class level estimates of bullying others (BO). The connection between Monitoring P and being bullied (BB) is also negative but not significant.

The pattern of associations at different class levels gives no clear picture of decreasing or increasing strength of connection with increasing age level. A significant and strong negative connection exists, however, at level 6 between Monitoring P and BB.

According to table 10.9., based on teacher information about monitoring, all correlations are nonsignificant.

10.3.4 Intervention

Tables 10.10. and 10.11. demonstrate relations between intervention and bullying.

Table 10.10 Correlations between Intervention P (pupil perception) and bullying (118).

	all	level 4	level 5	level 6
BO	-.34**	-.40*	-.07	-.46**
BB	-.14	-.47**	-.04	-.39*

Table 10.11 Correlations between Intervention T (teacher perception) and bullying (N=99).

	all	level 4	level 5	level 6
BO	-.17	-.07	-.27	-.02
BB	.04	.10	-.02	-.08

As demonstrated in table 10.10, intervention is negatively, significantly, and fairly strongly connected with class level estimates of bullying others according to information from the pupils. This tendency is significant and strong at levels 4 and 6, but weak and nonsignificant at level 5.

The relationship between Intervention P and class level estimates of being bullied is also negative, but not significant. At levels 4 and 6, however, the negative relationships are significant and strong. At level 5 the negative correlation is minimal and not significant.

In table 10.11, the correlation between Intervention T and class level estimates of bullying others is negative, but not significant. This is the case at all class levels. Intervention T and being bullied is almost not related.

10.3.5 Management and Bullying

As will be recalled, two first level variables concerning management of the class were constructed. Management P is based on the four second level management variables, pupil perception. The parallel variable Management T is based on teacher perception.

Results about the relationships between the two first level variables concerning management and class level estimates of bullying are reported in tables 10.12 and 10.13.

Table 10.12 Correlations between Management P (pupil perception) and bullying (N=118).

	all	level 4	level 5	level 6
BO	-.28**	-.38*	-.11	-.27
BB	-.05	-.40*	.02	-.38*

Table 10.13 Correlations between Management T (teacher perception) and bullying (N=99).

	all	level 4	level 5	level 6
BO	-.08	-.07	-.17	.13
BB	.07	.10	-.02	.03

Quality of management as reported by the pupils, Management P, is negatively and significantly related to class level estimates of bullying others. This relationship is fairly strong at level 4. At levels 5 and 6, the correlations are nonsignificant. The weakest correlation is found at level five.

Management P correlates negatively also with class level estimates of being bullied, but this correlation is very weak and not significant. But at levels 4 and 6 the negative relations are significant and fairly strong. At level 5, however, the relation is almost zero.

In general, Management P correlates negatively, moderately strongly, and significantly with bullying others, and negatively, weakly, and nonsignificantly with being bullied. As for both BO and BB, we notice that the relation with Management P is much weaker at level 5 than at levels 4 and 6.

Management T and BO is negatively, very weakly and not significantly correlated. And Management T is positively, very weakly and not significantly correlated with BB. The general picture is that Management T is not correlated with bullying at class level.

Going back to the 5th level, we notice that for Management T, the non-significant connections with both BO and BB are “more negative” than at levels 4 and 6. This is an inverse result from the connections between Management P and BO and BB.

10.3.6 Management and bullying: A brief conclusion

We obtained information from the pupils about “the teachers of class”, and we estimated four aspects of management; caring for pupils, competence in teaching, monitoring and intervention. We also obtained information from the main teacher of each class, about his or her caring for pupils, competence in teaching, monitoring and intervention. Each of the four aspects of management based on pupil information was related to class level estimates of bullying others and being bullied. In the same way, the four parallel variables based on teacher information were related to BB and BO.

All estimates of management based on pupil information correlated negatively with bullying others, and all variables except caring for pupils were significantly related to BB. The significant relations were not however, of any great strength.

None of the four estimates of management based on pupil information was significantly related to class level estimates of being bullied.

None of the four estimates of management based on the teacher information was related to either BO or BB.

The first level variable concerning management based on pupil information, Management P, correlated negatively and significantly with BO, but not significantly with BB. Management T, the first level variable based on teacher information, was not related to either BO or BB.

We observe, then, that the investigated aspects of management based on teacher information and the general Management T, are not related to class level estimates of BO or BB. We are a bit surprised about this, but we are not convinced that information from one of the teachers of the class is representative for all the four teachers that meet the class weekly.

There may be great differences between these four teachers concerning management of class.

We regard information from the pupils about “teachers of class” as more reliable, and we generally observe negative and significant relations between the four aspects of management and BO and also between Management P and BO. But class level estimates of being bullied were not related to these aspects of management or to Management P.

BO and BB are found to be differently related to management variables based on pupil information. It is plausible, that this difference may be explained by the pattern of bullying; that many of the victims are bullied by pupils from other classes.

10.4 SOCIAL STRUCTURE OF CLASS AND BULLYING

Variables concerning social structure of class are Relations, Effectiveness, Norms and the first level variable Structure. There are two sets of these variables; those based on pupil perception and those based on teacher perception.

10.4.1 Informal relations

Tables 10.14 and 10.15 demonstrate the correlations between pupil relations and bullying:

Table 10.14 Correlations between Relations P (pupil perception) and bullying (N=118).

	all	level 4	level 5	level 6
BO	-.42**	-.57**	-.33*	-.38*
BB	-.46**	-.64**	-.39**	-.53**

Table 10.15 Correlations between Relations T (teacher perception) and bullying (N=99).

	all	level 4	level 5	level 6
BO	-.43**	-.41*	-.44**	-.37*
BB	-.33**	-.50**	-.35*	-.33

In table 10.14, a significant and strong connection is recognized between class level estimates of informal relations between pupils, Relations P, and both bullying others and being bullied. These relationships are significant and strong at all class levels.

Information from the main class teachers about informal relations between the pupils, Relations T, is reported in table 10.15. The connections between Relations T and BO and BB are significant and strong. This is the case at all class levels.

As can be seen, the results in tables 10.14 and 10.15 are not very different. And as will be recalled, the similarity in these results when different sources of information are used, was not the case when management was concerned.

10.4.2 Effectiveness

The relations between Effectiveness and bullying are presented in tables 10.16 and 10.17.

Table 10.16 Correlations between Effectiveness P (pupil perception) and bullying (N=118).

	all	level 4	level 5	level 6
BO	-.32**	-.27	-.12	-.42**
BB	-.15	-.36*	-.15	-.32*

Table 10.17 Correlations between Effectiveness T (teacher perception) and bullying (N=99).

	all	level 4	level 5	level 6
BO	-.27**	-.25	-.23	-.22
BB	-.15	-.35	-.23	-.08

Table 10.16, based on pupil information, demonstrates a negative and significant correlation between Effectiveness P and class level estimates of bullying others. This connection is significant and strong at level 6, and weaker and nonsignificant at levels 4 and 5.

Effectiveness P is related negatively, but not significantly, to class level estimates of being bullied. The correlation is significant at class levels 4 and 6.

Teacher Perception of Effectiveness is reported in table 10.17. Effectiveness T is significantly and negatively related to bullying others. The correlation is also negative between Effectiveness T and being bullied, but not significantly. None of the negative correlations at the different class levels reach significance.

10.4.3 Norms

The estimated relations between norms and bullying are given in tables 10.18 and 10.19.

Table 10.18 Correlations between Norms P (pupil perception) and bullying (N=118).

	all	level 4	level 5	level 6
BO	-.43**	-.60**	-.21	-.45**
BB	-.25**	-.56**	-.33*	-.27

Table 10.19 Correlations between Norms T (teacher perception) and bullying (N=99).

	all	level 4	level 5	level 6
BO	-.25*	-.26	-.29	-.09
BB	-.01	-.04	-.21	.03

In table 10.18, which is based on pupil information, we observe a significant and strong negative connection between Norms P in class and class level estimates of bullying others. This connection is very strong at level 4 and strong at level 6. At the 5th level, the relationship is also negative but not significant.

There is also a negative and significant correlation between Norms P and class level estimates of being bullied. At level 4 the connection is very strong. At level 5 it is fairly strong and significant. At level 6 the connection is also negative but not significant.

When we move to table 10.19, which is based on teacher information about norms, we notice a negative and significant relation between Norms T and BO. Between Norms T and BB, the connection is practically zero.

We will investigate the Structure variables next.

10.4.4 Structure and bullying

There are two parallel first level variables concerning social structure of the class. Structure P is based on the three second level variables concerning aspects of structure according to information from the pupils. Structure T is the parallel first level variable (teacher perception).

In tables 10.20. and 10.21. we report the connections between Structure P (pupil perception) and Structure T (teacher perception) and bullying.

Table 10.20 Correlations between Structure P (pupil perception) and bullying (N=118).

	all	level 4	level 5	level 6
BO	-.45**	-.52**	-.24	-.52**
BB	-.30**	-.57**	-.33*	-.43**

Table 10.21 Correlations between Structure T (teacher perception) and bullying (N=99).

	all	level 4	level 5	level 6
BO	-.41**	-.42*	-.41*	-.31
BB	-.23*	-.44*	-.34*	-.19

In both tables, we observe negative, significant, and strong connections between the variables and class level estimates of bullying others.

As for being bullied, the connections in both tables are negative and significant, but not as strong as for bullying others.

In table 10.20, which is based on pupil information, the connections are strongest at levels 4 and 6. This is the same tendency as we observed for the connection between Management P based on pupil information and bullying. In table 10.21, we observe decreasing correlations with increasing age of the pupils.

10.4.5 A brief conclusion

We obtained information from the pupils and from the class teacher about three aspects of the social structure of the class; pupil-pupil relations, effectiveness, and prosocial norms.

These estimates of the social structure of the class were related to class level estimates of bullying others and being bullied.

Also, we constructed two first level variables; Structure P and Structure T. Structure P is based on the three second level variables concerning aspects of social structure according to pupil information. In the same way, Structure T is based on the three estimates of structure according to information from the main class teachers.

The aspects of structure were fairly strongly related to bullying others. This was the case both when we relied on pupil and on teacher perception. Also, Structure P and Structure T were fairly strongly related to class level estimates of bullying others.

As for being bullied, the relation to the structure variables was weaker. However, both Structure P and Structure T were related to being bullied in a significant way, but not as strongly as to bullying others. Again, a reason for this is probably that many victims are bullied by pupils from other classes.

10.5 THE FAMILY AND BULLYING

The construction of The Family Scale was reported in chapter 8. As will be recalled, the scale is based on 6 items and the Cronbach's alpha is .74. High scores on Family are positive.

The connection between the variable Family and bullying is reported in table 10.22. Family and the estimates of bullying others and being bullied are class level data.

Table 10.22 Family and bullying. Data based on pupil information (N=118).

	all	level 4	level 5	level 6
BO	-.22*	-.35*	-.12	-.12
BB	-.02	-.30	-.39*	.18

Family correlates negatively and significantly with class level estimates of bullying others. At level 4, this correlation is fairly strong, but weak and nonsignificant at levels 5 and 6. This relation between Family and BO is slightly weaker than the relation between management and BO when we use the most reliable first level management variable,

Management P. Compared to the relations between the two first level structure variables and BO, the relation between The Family Scales and BO is much weaker.

The correlation between the Family and class level estimates of being bullied is almost zero. The tendency is very different, however, at levels 4 and 5 compared with level 6.

We were a bit surprised by the relatively weak connection between class level estimates of family conditions and bullying compared to the stronger relation between management, and especially structure, and bullying. We regard this as an interesting observation. However, family conditions may be related to social conditions in class and may thus have an indirect impact on bullying also.

10.6 *MANAGEMENT, SOCIAL STRUCTURE, FAMILY AND BULLYING*

So far, we have reported how different aspects of management in class and some aspects of social structure are related to class level estimates of bullying others and being bullied. We have also constructed two first level variables based on management variables; Management P and Management T, and we have related these to bullying. In the same way, Structure P and Structure T were established and related to bullying. And finally, we have correlated Family with BO and BB.

These pairwise analyses of correlations have demonstrated both strong, medium, weak or almost zero connections between bullying and our predictive variables. The general picture is that the different management second level variables based on pupil information and the first level variable are negatively and moderately correlated with class level estimates of bullying others, and in general more weakly correlated with class level estimates of being bullied. The management second level variables based on the class teacher's information and also the first level variable are very weakly, and somewhat inconsistently correlated with BO and BB. The structure second level variables based on information from the pupils and the class teachers and also the two first level variables, are in general negatively and fairly strongly correlated with class level estimates of bullying others. These variables are rather weakly correlated with class level estimates of being bullied.

A main conclusion is that the two dependent variables; bullying others and being bullied are rather differently related to the independent variables. The class level estimates of bullying others are rather strongly connected to class level estimates of management and structure,

whereas class level estimates of being bullied are only weakly connected to those estimates. These results could be expected, as many of the victims report being bullied by pupils from other classes. We have to conclude, then, that class level estimates of being bullied is not a very useful dependent variable when we investigate the significance of management and social structure of class on bullying.

Finally, Family was negatively and significantly correlated with BO, but the correlation with BB was almost zero.

Focusing on the predictive variables, a further question is whether the family situation, management and structure are intercorrelated. We report these intercorrelations in tables 10.23 and 10.24.

Table 10.23 Intercorrelations between Family, Management P, and Structure P (N=118).

	Family	Management P
Management P	.40**	
Structure P	.52**	.70**

Table 10.24 Intercorrelations between Family, Management T, and Structure T (N=99).

	Family	Management T
Management T	.14	
Structure T	.21*	.42**

Except for Family and Management T, all correlations within the two tables are significant and they are positive. Otherwise, we observe that the intercorrelations reported in table 10.23 are strong or very strong and that the correlations reported in table 10.24 are weaker.

Family, Management, and Structure are all regarded as variables that may predict class level estimates of BO and BB. We observe that these predictive variables are intercorrelated. This is especially the case for those based on pupil information (table 10.23), but also the variables of table 10.24 are more or less intercorrelated. In principle, the intercorrelations between predictive variables confront us with the question of causality also between those predictive variables. This will first be discussed for variables within tables 10.23 and 10.24 separately.

11. Chapter eleven: Causality

11.1 A PATH MODEL

A path analysis means to construct a causal model containing independent variables and the dependent variable or variables, and to estimate the relationships between the variables within the model. Causal direction is normally illustrated from left to right. The left part of the model comprises the independent variables, and the right part is the dependent variable or variables (Olweus 1980; Wonnacott & Wonnacott 1985; Borg & Gall 1989; McCann & Higgins 1992). In our case, the independent variables are Family, Management, and Structure.

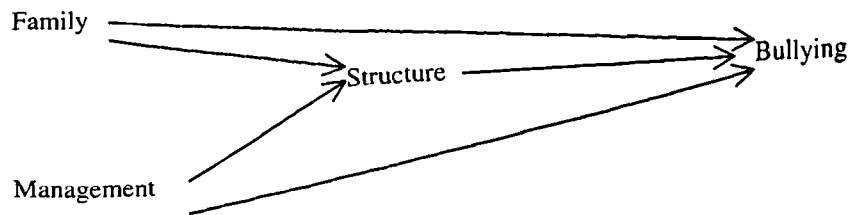
The main theoretical question is to organize the independent variables in reasonable causal levels. It is quite possible that the social structure of a class may influence management. However, we suggest the main causal direction to be from management to social structure, as argued in chapter 6. In the same way, the social structure of the class may influence family life, but we regard this as rather hypothetical. It is much more reasonable to think that family life, via the impact this will have on the pupils' attitudes, may influence the social structure of the class.

It has not been found necessary to make any causal priorities between Family and Management, and both will be given causal priority 1 within the model. Structure is given priority 2, and Bullying priority 3 as the dependent variable.

Path analysis is a multiple regression technique by which we are able to estimate the impact of each of two or more variables on one other variable. The standardized partial regression coefficients (Beta's) between each of the variables and the target one are commonly used as estimates of the impact from each of the independent variables on the target variables (Borg & Gall 1989). If the model contains only one causal step, the target variable is identical with the dependent variable. In our case, the model contains two steps. In addition to the dependent variable, the model contains one more target variable, which is Structure.

The general model is illustrated in figure 11.1.

Figure 11.1 The general path model



The technical part of path analysis according to this model is to calculate the beta coefficients between variables at causal level one (Family and Management), and the target variable at level two (Structure). Furthermore, to calculate the beta coefficients between all independent variables and the dependent variable, and finally to calculate the correlation between variables at the same level, in this case between Family and Management.

The model comprises beta coefficients between variables at level one and the variable at level two, and between all independent variables and the dependent one. All the beta coefficients are estimates of so-called direct effects, illustrated as arrows going from left to right in the model.

In addition to these direct effects, there may be indirect effects in the model. In our case, we have to look for such effects from one or both variables at level one on the dependent variable, via the effect one or both may have on the variable at level two in the model. One or two indirect effects are present if one or more variables at level one has an impact on the variable at level two, and if this variable at level two has an impact on the dependent variable (Wonnacott & Wonnacott 1985).

11.2 SELECTION OF VARIABLES

11.2.1 Dependent variables

We have been concerned with the class level estimate of being bullied, because many of the victims have reported being bullied by pupils from other classes. We have, however, reported the relationships between Management and Structure variables and class level estimates of being bullied. And we have observed rather weak correlations as could be expected. Class level estimates of Being Bullied, we have to conclude, is not a very logical

variable to relate to class level estimates of Management and Structure to discuss causal connections.

We will restrict ourselves, then, to conducting the path analysis for Bullying Others as the dependent variable.

11.2.2 Independent variables

We have presented analyses based on two alternative sources of information when Management and Structure are concerned, namely information from the pupils and from the class teachers, and we have observed somewhat different results. A simple question is whether it is the teachers' or the pupils' information that is the best.

Moreover, it would strengthen our design if it is found reasonable to use information from pupils when one of the two variables Management and Structure is concerned, and another of the two variables in relation to information from teachers. We will discuss this question below, as we discuss the problem of a possible response set when one and the same person reports on social issues that are going on simultaneously.

As a first step, we will look at the intercorrelations between the four variables; Management T and P, and Structure T and P. These intercorrelations can be found in table 11.1.

Table 11.1 Intercorrelations between Management P, Management T, Structure P and Structure T (N=118 for data based on pupil information, and N=99 for data based on teacher information).

	Management T	Management P	Structure T
Management P	.19		
Structure T	.42**	.36**	
Structure P	.12	.70**	.49**

The two management variables based on teacher and pupil information respectively, are positively correlated but weakly and not significantly. And, as reported earlier, the two alternative management variables are differently related to bullying others. Management P is significantly related to BO, but Management T is not. There may be several reasons for the different relations between the two estimates of Management and Bullying Others. But it is obvious, we believe, that the class teacher's influence on the class is often affected by the influence of the other teachers of a class. In our sample, the mean number of teachers that

work in a class during one week is very close to four. We find it reasonable, then, to rely more on the pupil information about “the teachers of class”. It may also be, that information from pupils about one single teacher would have been more reliable than information from the teacher about his or her own management.

The two estimates of Structure are fairly strongly correlated. Also, as we have reported earlier, there are no great differences between Structure P and Structure T concerning their relationship with Bullying Others. We are aware that for the social structure of the class, the class teacher very likely relies mostly on observations made during her or his own lessons and that the class as a social system may change according to who the teacher is, at least to some degree. Should this be the case, we will probably have underestimated, and not overestimated, the relation between Structure T and other variables of which Bullying Others is an important one.

In Table 11.1, we also observe that the correlation between management and structure when based on teacher information is .42, and .70 when based on pupil observation. Is it possible that a response set may operate when the same person evaluates both management and structure, which are two phenomena going on simultaneously and in the same room, so to speak? If so, this may to some degree explain the strong correlations. The correlation between Management P and Structure P is .70, which is a very strong relationship between two social variables. We do not think it is unlikely that a response set may explain some of this very strong relationship. We suspect this also because of the somewhat peculiar correlation of .40 between Family and Management P, reported in table 10.23.

Due to the above, in principle, it would be preferable to use pupil information about one of the two variables, and teacher information about the other. We have suspected that Management P is a better estimate than Management T. As for structure, we have no good reason for not accepting Structure T.

To be able to use information from the pupils about one of the two variables, and from teachers about the other, we then find it reasonable to make a path analysis based on Management P and Structure T. In addition, Family should be considered.

11.3 THE PATH ANALYSIS

The intercorrelations between Family, Management P and Structure T and the relations between these and bullying others (BO), raise the question of how great the multiple correlation between the independent variables and BO may be.

As for our path analysis, we must estimate the relative strength of relations between each of the independent variables and BO.

Further, a multiple regression analysis with Family and Management P as independent variables, and Structure T as target variable had to be conducted to estimate the two beta coefficients between each of the two independent variables and the target one.

We have to conduct two sets of multiple regression analyses then.

Analysis 1: Family, Management P, and Structure T as independent variables, and BO as dependent (target) variable.

Running a stepwise procedure in the first place, Structure appears as step 1 in the analysis, Management P as step 2, and Family as step 3. Multiple R increases from .41** to .47** by entering Management P. Multiple R is still .47** after entering Family. (N=99).

Multiple R, then, is .47**, which is the total impact of the three independent variables on the dependent one. This means that the three independent variables together predict about 22% of the variance of the dependent variable.

Table 11.2 comprises key results for our path analyses.

Table 11.2 Standard multiple regression of the independent variables Family, Management P and Structure T, and dependent variable bullying others (BO). (N=99).

	Beta	VIF	T	p
Structure T	.32	1.15	3.30	.001
Management P	.22	1.42	2.01	.047
Family	.06	1.30	.60	ns

It is recognized that the relations between each of the independent variables Structure T and Management P and BO are significant. The relation between Family and BO is not significant. Finally, it is recognized that the problems of collinearity (VIF) are minimal.

Analysis 2: Family and Management P as independent variables, and Structure T as target variable.

Since our model comprises two causal steps, we also have to make a regression analysis with Structure T as target variable and Family and Management P as independent variables. Using a stepwise procedure in the first place, Management P appears as step 1 in the analysis and Family as step 2. Multiple R increases from .36** to .37** by entering Family. (N=99).

Key results for our path analyses appear in table 11.3.

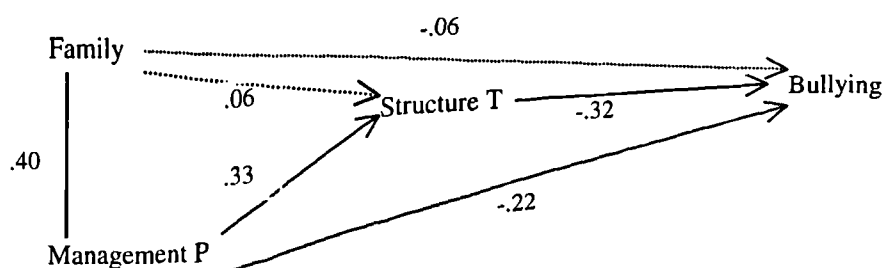
Table 11.3 Standard multiple regression of the independent variables Family and Management P, and target variable Structure T. (N=99).

	Beta	VIF	T	p
Management P	.33	1.29	3.10	.003
Family	.06	1.29	.53	ns

The relation between Management P and the target variable is significant, while the relation between Family and target variable is not significant. The problems of collinearity (VIF) are minimal.

Tables 11.2 and 11.3 comprise the key estimates for our path analyses. The path model appears in figure 11.2.

Figure 11.2 Path model for Family, Management P (information from pupils), Structure T (information from teachers) and Bullying Others. (N=99).



Significant relations are illustrated with whole lines, while not significant relations are illustrated with dotted lines.

Structure T has a direct negative and significant effect on the dependent variable. The direct effect from Management P on the dependent variable is also significant and negative.

In this model, where Management P is based on information from pupils, and Structure T is based on information from teachers, a most interesting relation is that between these two variables. As demonstrated, Management P has a significant positive effect on Structure T. Management P has an indirect effect on the dependent variable via Structure T which is calculated to $.33 \times -.32 = -.11$. The total effect of Management P is $-.22$ plus $-.11 = -.33$.

The direct effect from Family on Bullying Others is not significant. And there is no significant indirect effect from Family on Bullying Others via Structure T.

The Multiple $R = .47^{**}$ is a substantial total effect of the independent variables on bullying others. And we recognized that Multiple R is $.47^{**}$ when only Management P and Structure T are included in the model.

Finally, we find a correlation of $.40^{**}$ between Family and Management P. This significant correlation is difficult to explain. Both Family and Management P are based on information from the pupils, however, and it is possible that some kind of a response set is operating. It is possible that pupils who perceive family relations to be positive, at least to some degree, also perceive management on the part of teachers to be positive. If this should be the case, an impact from family relations on bullying others estimated at class level may be present. But in any case, Management and Structure appear to be related to Bullying Others in a substantial way.

11.4 SUMMARY OF CLASS LEVEL RESULTS

In our class level analyses, we were concerned about relations between home conditions, management on the part of the teacher, social structure of class, and bullying.

Management. Four aspects of management have been studied: personal caring for pupils, competence in teaching, monitoring and intervention. We obtained information from the

pupils about “the teachers of class” and from the class teacher about his or her style of management.

In general, the different aspects of management based on pupil information were negatively, significantly but not very strongly related to class level estimates of bullying others (BO). This means that the level of bullying others decreased with increasing quality of management. The parallel relations to being bullied (BB) were weak and nonsignificant. Management P that is composed of the four aspects of management based on pupil information was related to BO and to BB in a similar way.

The four aspects of management based on teacher information were mainly negatively, nonsignificantly and weakly related to BO, and not related to BB. Management T, which is composed of the four aspects, was related to BO and BB in a parallel way as the four aspects of management based on teacher information were.

Social structure. We also investigated three aspects of social structure of class; pupil-pupil relations, effectiveness, and prosocial norms. We obtained information both from the pupils and from the class teacher.

These aspects of social structure were negatively, significantly, and fairly strongly related to class level estimates of bullying others. This was the case both when we used information from the pupils and from the teachers. This pattern subsisted when we used Structure P, which is based on pupil information and Structure T, which relies on teacher information.

As for being bullied, these relations were weaker, but they were mainly significant. The pattern is about the same for Structure P and Structure T, as when the second level variables estimating aspects of structure were used.

Family. This variable, estimating family conditions, was at class level negatively and significantly related to Bullying Others, but this relation was not very strong. The relation between Family and Being Bullied was almost zero, when estimated at class level.

The path analysis. To analyze the separate and joined effect from the independent variables on one of the dependent variables, bullying others, we used the path analysis technique.

At level one of the causal chain we defined Family and Management, and at level two social Structure of class. Level three, then, is the dependent variable, Bullying Others.

We used information from pupils about Management, but information from teachers about Structure. Still, Family and Bullying Others (BO) were based on pupil information.

Management P had a direct effect on Bullying Others and an indirect effect via Structure T. Also, there was a direct effect from Structure T on BO. Family was not related to BO, nor to Structure T. The correlation between Family and Management P was .40**, and a response set was considered. Multiple R was .47**.

11.5 CONCLUSION AND A FURTHER STEP

As our results have demonstrated, there is a strong relationship between teachers' management of the class, the social structure of the class, and bullying, and this also applies when home conditions of the pupils are included in the analysis. There are also theoretical reasons for suggesting that these relations are in part causal, so that management influences bullying directly and indirectly via an effect on the social structure of class.

In our opinion, these results are important as they strongly indicate that the classical and dominating home conditions - personality - bullying concept of influences of bully/victim problems is a too simple model.

Also, from a practical point of view, it is of great importance if the nature of management on the part of the teachers influences the social structure of the class and the amount of bullying.

However, a classical problem of our method is that we cannot be completely sure about the direction of influence between the variables. It is not unlikely that bullying among the pupils may influence the social structure of the class and even the quality of management. Also, social structure of the class may influence management.

To estimate causal effects in our research field, longitudinal studies or field experiments should be recommended. The 1983 national campaign against bullying in Norway, reported in our chapter 2, could be regarded as such a large field experiment. And as will be recalled, the results from the Bergen study (Olweus 1991, 1993) were very promising, while the Rogaland results (Roland 1989b, 1993a) were positive at schools that had adopted the

campaign seriously. Results from the Sheffield project were also promising, although not as dramatic as those of the Bergen project (Whitney et al. 1994):

The rather promising results from these programs, strongly suggest a causal effect from management on the part of the teachers to amount of bullying among the pupils. This makes it reasonable, but does not necessarily mean that our own results of rather strong relations between management, the social structure of the class, and amount of bullying, have a parallel causal structure. There are, namely, some differences between the profile of the Norwegian 1983 program, and also between the Sheffield project, and the key variables included in our own study.

Bullying focused or general management. The profile of the Norwegian 1983 campaign was rather bullying focused, we concluded in chapter 2, as it mainly focused on how the teachers could discuss this particular behaviour with the pupils and how they could manage the problem if it came to the surface. Such a bullying focused profile, in one version or another, is very common for programs intended to counteract bullying (Whitney et al. 1994; Ross 1996). And it is of great importance that such a profile seems to reduce the amount of bullying among the pupils.

In our own research, we have constructed the management second level variables and the first level management variable according to general theory and main empirical results about how management in class could be conducted to improve pupils' learning outcomes and behaviour. Our management variables are not bullying focused.

If it is possible to counteract bullying by means of general classroom management, the benefits are great, as we have argued recently (Roland & Munthe 1997). A key question, then, is whether we are dealing with causal effects so that improved general management influences the amount of bullying among the pupils.

12. Chapter twelve: Effects of Improved General Management

12.1 INTRODUCTION

Parallel to our empirical research, reported in chapters 9-11, we involved groups of first grade teachers in theoretical-practical training intended to improve their class and management skills. The training program was not bullying focused, but instead centred on improving the social structure of the class to prevent different kinds of behavioural problems, and to improve the pupils' motivation. Methods of intervention to stop disruption in class and to stop bullying were included as a minor part of the program.

The theoretical background to the program was similar to that of the class level analysis, presented in chapter 5. In this analysis, we were interested in how caring for individual pupils, task related organization, monitoring and intervention, were related to some general aspects of the social structure of the class and to bullying.

Two main questions arise initially:

A. Could such a general, and not bullying focused approach, reduce bullying among the pupils?

If a field experiment were to demonstrate good results on bullying, this would be interesting in light of the problem of cause and effect between the variables of our class level analysis.

B. Could the programme reduce other social problems among the pupils as well, and improve motivation for schoolwork?

This last question was an additional test of the validity of our management variables since previous research had so consistently demonstrated the relationships indicated in our question.

Also, if the broad approach could reduce not only bullying, but also different kinds of problems, and improve pupil motivation for schoolwork as well, this would have practical implications for schools.

12.2 CONTENT AND ORGANIZATION OF THE PROGRAM

The program was conducted twice at nine primary schools in a Norwegian town. Participants were 20 first grade teachers in the first year, and the same number of first grade teachers the next year. These two different groups comprised the appointed main teachers of each class. It should be noted that in Norway, each class meets several teachers during a period of one week. In our case, this number of teachers per class is about four. One of these four is the appointed main teacher of class. It was these appointed main teachers of each class that took part in our program. In addition, two control groups of grade one pupils were part of the design.

Our programme was designed to improve the competence of first grade teachers in specific aspects of management: caring for each pupil, implementation of routines for task oriented work, monitoring, and intervention, so as to improve the pupils' behaviour and motivation for school. The aspects of classroom management focused on in the program, then, were parallel to the subscales used in our class level analyses.

The teachers involved in the program were offered four seminar days during a school year about classroom management, discussions in small groups, and literature.

12.2.1 In-service days and literature

The program was composed of four in-service days; in May/June, September, November and February. As a supplement to lectures and discussions at the in-service days, the teachers were provided with four articles that we had written, corresponding to the content of each of the seminars.

12.2.2 Peer Supervision

Between the in-service days, the teachers were organized in three peer supervision groups of 6-7 teachers. Each group was headed by a colleague who was trained by us for this mission. The teachers presented cases, or more general questions to each other, and discussed them according to a defined procedure (Appendix 3). As far as possible, the discussions were

related to the theoretical concepts and practical applications presented during the in-service days. The groups met every two weeks, and each counselling session lasted for two hours.

12.3 METHOD OF RESEARCH

To evaluate the possible effects of the programme, a simple questionnaire for the pupils, developed by us, was used. The questionnaire was answered by four samples of first grade pupils. Two of these were experimental samples whose main class teachers had been involved in the program, and two were control samples. We wanted to compare the experimental samples with the control ones on 11 variables, for instance bullying, some other social problems and some issues that were regarded as positive.

12.3.1 The samples

The four samples are:

A. Control sample 1

This consists of the pupils of first grade at the 9 experimental schools in the school year before the programme was started, year zero. Their teachers, then, were not involved in the programme.

B. Experiment sample 1

A new group of pupils of first grade at the 9 experimental schools in the first year of our field experiment, year one. Their teachers, then, were involved in the programme.

C. Experiment sample 2.

A new group of pupils of first grade at the 9 experimental schools in the second year of our field experiment, year two. Their teachers, who comprised a new group of teachers, were involved in the programme.

D. Control sample 2

The pupils of first grade at 6 schools in the same town but which did not take part in the field experiment, year two. Their teachers, then, did not take part in the programme.

Samples A-C, then, consist of three different groups of pupils. All pupils were in first grade (20 classes in each group), year zero, year one and year two, at 9 selected schools. But the

pupils in sample A, the control sample 1 of pupils in first grade in year zero, were not involved in the experiment.

These 9 schools, out of a total of 18 primary schools in the town, were selected by the head of schools in the town, according to guidelines given by us. These were that the 9 schools, as far as possible, should be representative of the primary schools of the town according to size, design and location.

Sample D, the control sample 2, consisted of the pupils of first grade in year two, the last year, at 6 of the 9 schools that did not take part in the field experiment. The number of participating classes in the investigation at these six schools was 9. The remaining three of the non-experimental schools were also invited to take part in the control sample, but they refused for various reasons.

The teachers of our two different control samples of pupils in first grade, samples 1 and 2, were not involved in the programme. The teachers of the two experimental samples of pupils in first grade, sample 2 (first year) and 3 (second year), were two different groups of teachers. Our experiment, then, comprises four samples.

The number of pupils and missing data in the four samples, are shown in table 12.1.

Table 12.1 The number of participating pupils and % missing data of total number of pupils of the four samples.

	pupils	% missing
A. Control sample 1	328	5
B. Experiment sample 1	341	6
C. Experiment sample 2	334	4
D. Control sample 2	151	6

The number of pupils in samples A, B, and C are about equal, while number of pupils in sample D is less than half of each of the others. The total number of participating pupils is 1154. Of these, 589 were girls and 565 were boys. The missing percentage is low in all samples. And except for 19 pupils, who had to be excluded because of incomplete answers, the other missing pupils are due to absence from school on the day of the investigation.

12.3.2 Procedure

The school board and representatives of the parents gave permission to conduct the programme, including the investigations. No pupils were left out, then, except those who were not present on the day of the investigation and those who had not filled in the questionnaire adequately.

The time of investigation was the beginning of June, when the pupils were about to finish their first year of school. The procedure implemented was identical for all four samples. The very simple questionnaire consisted of a total of 13 questions. The class teacher administered the questionnaire according to a written instruction. The questions were read aloud by the teacher one by one. After reading a question, the teacher paused a few seconds so that the pupils had time to mark the answer, and then the teacher moved on to the next question. Simultaneously, the questionnaire was shown on a screen and the teacher pointed at the question being read. The teachers were also instructed to explain the meaning of a question if a pupil asked. The pupils knew that the investigation was anonymous, and that not even the teacher would see the answers.

According to the teachers, there were no serious problems in administering the investigation. Yet, we had to exclude 19 questionnaires because they were not filled in adequately.

12.3.3 Instrument

Besides questions that identified the school and the class, the questionnaire comprised the following 11 items, and response alternatives:

1. Gender: Girl___Boy___
2. How do you like it in class?
Bad--Fairly good--Very good
3. Do you like the subjects at school?
Never--Now and then--Often
4. Do you help other pupils when they need it?
Never--Now and then---Often
5. Do you sometimes not want to go to school?
Never--Sometimes--Often--Always

6. Do you think there is much noise and disruption during the lessons?

Never--Sometimes--Often--Always

7. Are you disruptive during the lessons?

Never--Sometimes----Often--Always

8. Do you feel sad at school?

Never--Now and then--Often

9. Do you feel sad at home?

Never--Now and then--Often

About bullying

It is bullying when a pupil is being hit, kicked or pushed by other pupils. It is also bullying when a pupil is teased a lot by others, or when a pupil no longer is allowed to be with the others, when a pupil is isolated by the others.

10. Does it happen that you are bullied by other pupils at school?

Never--Now and then--Weekly--Several times a week

11. Does it happen that you take part in bullying other pupils at school?

Never--Now and then--Weekly--Several times a week

Response alternatives, read from left to right, were scored 0,1,2 and 3. High scores on items 2-4 were regarded as positive while high scores on items 5-11 were regarded as negative. We will sometimes refer to items 2, 3, and 4 as “plus” variables, and to items 5, 6, 7, 8, 10, and 11 as “minus” variables. A high score on plus variables is regarded as positive while a high score on minus variables is understood as negative. Item 9 is regarded as a simple control variable, concerning home conditions.

12.4 RESULTS

First, we will compare the two control samples with each other. Second, the two experimental samples will be compared with each other.

12.4.1 Experiment and Control Samples

As will be remembered, the Control sample 1 is pupils in first grade at the experimental schools, the year before the experiment was started, i.e. year zero. These pupils and their teachers were not involved in the program. The control sample 2 is pupils in first grade at 6 out of the nine primary schools in town, that did not take part in the experiment. These data were obtained in year two.

In table 12.2 we compare these two control samples.

Table 12.2 Mean levels, number of pupils (N), t-values and levels of significance for 10 variables. Control samples 1 and 2.

Variables	Control 1		Control 2		t	p
	mean	N	mean	N		
2. like it in class	1.44	329	1.49	148	.87	.39
3. like subjects	1.39	328	1.42	148	.55	.58
4. helping other pupils	1.15	329	1.27	147	2.11	.04
5. hesitating going to sch.	.77	329	.78	148	.12	.90
6. noise & disruption	1.51	329	1.47	148	.53	.59
7. yourself disruptive	.67	327	.70	148	.36	.72
8. sad at school	.66	328	.65	148	.22	.82
9. sad at home	.78	329	.77	148	.15	.88
10. bully others	.41	328	.37	147	.74	.46
11. being bullied	1.08	329	1.05	146	.40	.69

Variable 9, "sad at home" is meant as a simple estimate of the home conditions. It could be possible, however, that sadness is mainly a trait of personality and not an estimate of the situation. If so, variable 9 is not a reliable estimate of homeconditions. When related to variable 8, "sad at school", the correlation is .25**, which is a significant, but not a very strong correlation. This indicates that our estimate of sadness may be regarded as mostly related to situation, and we will accept variable 9 as a rough estimate of the home conditions. We observe that the means of the two samples are almost identical for this variable.

All the other variables refer to conditions at school, and the table demonstrates that Control 1 and Control 2 samples differ significantly on one variable only. The significant difference

is on variable 4, "helping other pupils". On this variable the Control 2 sample has a higher mean than the Control 1 sample.

The general impression, then, is that the two samples are remarkably similar, both on home conditions and on the school-related variables.

Secondly, we will compare the two experimental samples.

12.4.2 The two experimental samples

As will be recalled, the field experiment was conducted twice at the 9 schools, in year one and year two.

The experimental sample 1 comprises the pupils in grade one at the 9 experimental schools the first time the program was in operation, year one. Pupils in grade one the next year at these 9 experimental schools, year two, comprise Experimental sample 2.

In table 12.3., the two samples are called "Experiment 1" and "Experiment 2".

Table 12.3 Mean levels, number of pupils (N), t-values and levels of significance for 10 variables. Experiment 1 and Experiment 2.

Variables	Experiment 1		Experiment 2		t	p
	mean	N	mean	N		
2. like it in class	1.66	342	1.59	333	1.36	.17
3. like subjects	1.49	340	1.47	333	.39	.69
4. helping other pupils	1.30	341	1.28	332	.45	.65
5. hesitating going to sch.	.63	340	.59	332	.72	.67
6. noise & disruption	1.28	341	1.15	332	2.27	.02
7. yourself disruptive	.62	341	.59	332	.47	.64
8. sad at school	.55	341	.58	333	.70	.49
9. sad at home	.75	340	.75	332	.07	.95
10. bullying others	.35	341	.34	331	.19	.85
11. being bullied	.86	342	.87	333	.14	.89

For both the two experimental samples, we notice that the mean on variable 9, "sad at home" is .75.

Furthermore, the differences between means on all the 10 school related variables, except one, are nonsignificant. The variable with a significant difference between means is no. 6, noise and disruption in class. With this exception, we find that the two experimental samples demonstrate a remarkable likeness with reference to the pairs of means.

12.4.3 Conclusion

The most interesting analysis of course, is that of comparing those pupils who were not involved in the field experiment with those who were. We have not found reason to report detailed results of analyses comparing each of the samples that were not involved with each of the two experimental samples.

The two control samples, then, are labelled Control, while the two experiment samples are called Experiment. We will compare Control with Experiment.

12.4.4 Control and Experiment Samples

Our main analysis is to compare the answers of those pupils who took part in the Experiment with the answers of pupils in Control samples.

For this analysis, with the exception of variable 9, we use the H1. Hypothesis (Kerlinger 1973):

"Results are in favour of the experiment group."

One-tailed tests of significance will be used for all other variables than number 9. For variable 9, a two-tailed test will be used. Results are in table 12.4.

Table 12.4 Mean levels, number of pupils (N), t-values and levels of significance for 11 variables. Experiment and Control.

Variables	Experiment		Control		t	p
	mean	N	mean	N		
2. like it in class	1.48	673	1.40	476	2.36	.01
3. like subjects	1.63	675	1.45	477	4.70	.00
4. helping other pupils	1.29	673	1.19	476	3.16	.00
5. hesitating going to sch.	.61	672	.77	477	3.14	.00
6. noise & disruption	1.21	673	1.50	477	6.00	.00
7. yourself disruptive	.60	643	.67	475	1.83	.04
8. sad at school	.56	674	.66	476	2.70	.01
9. sad at home	.75	672	.78	477	.83	.41
10. bully others	.34	672	.40	475	1.66	.04
11. being bullied	.87	675	1.07	475	4.29	.00

As seen in the table above, for the rough estimate of home conditions, variable 9, the Experimental group and Control are not significantly different and the two means are very similar. An ANOVA analysis with variable 9 as covariate did not change the pattern of significant differences between Experiment and Control groups, reported in table 12.4.

Except for the nonsignificant difference on variable 9, all other differences between means are in favour of the Experiment group, and all differences are significant.

Regarding bullying, we notice that the mean for Experimental group is 15% below the mean for Control on bullying others and 18.7% below on being bullied.

12.5 DISCUSSION

Our class level analyses presented in chapters 10 and 11 demonstrated significant relations between general management of class, social structure of class, and bullying. We indicated that a causal structure might be present in that management could have a direct effect on bullying and an indirect one via structure. In the present chapter, we have reported on a field experiment in which we have tried to evaluate whether improved management on the part of

the teachers may influence the amount of bullying among the pupils and whether improved management may have other effects as well.

Our programme was designed to improve the competence of first grade teachers in specific aspects of management; caring for each pupil, implementation of routines for task oriented work, monitoring, and intervention, so as to increase the scores on so-called “plus variables”, and reduce the scores on “minus variables”, as reported by the pupils. The aspects of classroom management focused on in the programme were parallel to the subscales used in our class level analyses.

In contrast to our class level analyses in grades 4-6, we have no direct evidence from teachers in the field experiment. Another difference is that our class level research reported in chapters 10 and 11 comprised grades four, five and six, our field experiment was conducted in grade one.

Two main results emerged from the field experiment:

A. As for bullying others and being bullied, we observed significant differences in favor of the experimental group. These differences were, however, far from the dramatic reduction in bullying reported in the Bergen project (Olweus 1985, 1991, 1993), nor as good as those reported from the Sheffield project (Whitney et al. 1994), but better than that found in the Rogaland study (Roland 1989b, 1993a). As will be recalled, all of these studies aimed at estimating effects of campaigns against bullying, which we regarded as rather bullying focused even in the preventative aspect of the programme.

B. In addition to bullying others and being bullied, we observed better scores also on all other so-called minus variables of the experiment group, compared to those of Control, and furthermore, also better scores on all plus variables. This result is interesting and it indicates that improved management has a positive effect on many different outcomes, as well as on bullying. If so, it is interesting both as a theoretical understanding and for practical management in class.

As for management, the central principles of the programme are similar to the aspects of management we investigated in our class level analyses, reported in chapters 10 and 11.

It is possible then:

- a. that the experimental groups of teachers actually did better on these aspects of management than was the case for their colleagues in the control groups.
- b. that the experimental groups scored higher than the controls on the structural variables: quality of pupil-pupil relations, effectiveness and social norms in class.

We have no systematic information about what the teachers actually did towards the pupils (variables a.), or estimates of the structural variables (variables b.). Furthermore, if a and/or b should be true, it may be due to our programme. But in principle of course, it is possible that a better standard of a, b, or both is caused by something else, for example a Hawthorne effect, that may have improved management on the part of the participating teachers. We have no data that can help to evaluate such possible effects when teachers are concerned. However, as the information relating to our variables was obtained from the pupils, it is likely that this information was not influenced by the programme, as the pupils were not informed about the experiment. It would, however, have been interesting to conduct a follow up investigation to see whether the differences between the experimental groups and control groups were present some years after the experiment was conducted.

It is difficult not to believe that the programme had an effect, since the results are so consistent. Moreover, it should be remembered that only the appointed main teacher of each class took part in the programme. The remaining three teachers who met the class during the week did not take part. And these three teachers did of course also influence the class. We may assume that the effect of the programme would probably, have been even stronger if all four had participated. The effect of such a programme for teachers, then, is probably not overestimated in our experiment, and we regard such an effect the most important result when the rather strong relationships between management, social structure and bullying demonstrated in the class level investigation are concerned. The problem of cause and effect in this kind of a study is complicated, but the results of the field experiment make us more confident in the causal structure suggested in the path analyses outlined in chapter 11.

PART SIX: CONCLUSIONS AND PERSPECTIVES

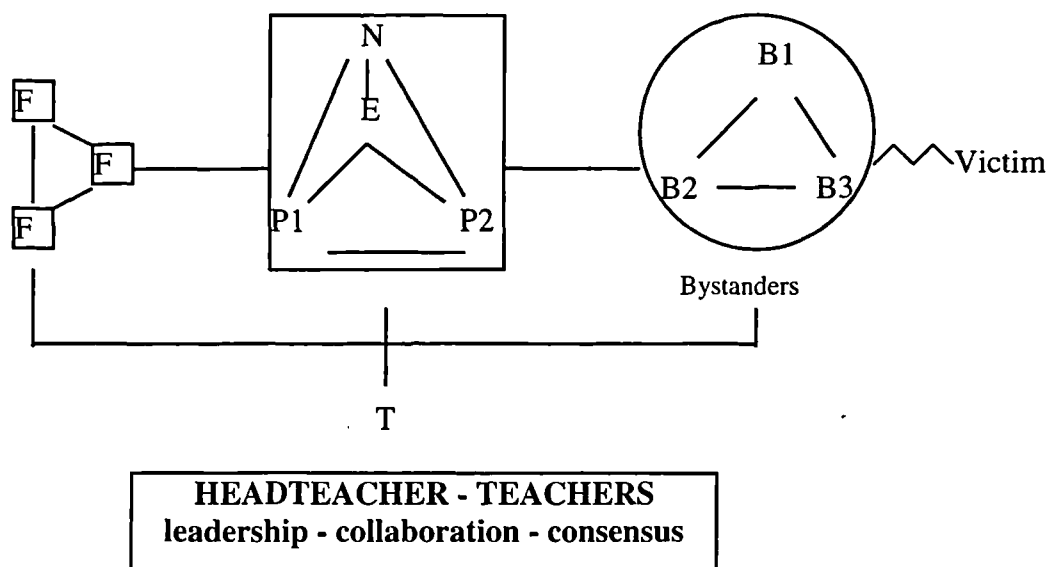
13. Chapter thirteen: Discussion and Theoretical Perspectives

We have previously suggested a “Model for system strategies to deal with bullying” (Roland 1989a, 1995), and we will modify and extend this model as we discuss some of our main results and perspectives on further research on bullying in school.

13.1 A THEORETICAL MODEL

A main principle of the model presented below, is to separate interactions in bullying from more general aspects of social interaction. Our main question is how such general aspects of social interactions may influence bullying. It is also relevant to ask whether interactions involved in bullying may contribute to social structures at class and school level.

Figure 13.1 A theoretical Model



Interactions in bullying are illustrated to the right in the above model. The circle comprises three (B)'s, which means bullies. Interactions between them are illustrated by lines. The

interaction between bullies and victim (V), is illustrated by a zigzag line. Bystanders may be part of these interactions.

The box refers to structured interactions within a class. The symbols used are P1 and P2, which illustrate two pupils. The line between these two illustrates attraction, the personal feelings, between them. These two pupils, and the attraction between them, represent all pupils and patterns of attractions between pupils in a class.

(E) stands for effectiveness of school related activities, and (N) illustrates norms. The lines between the symbols, illustrate interrelations.

The left side of the model illustrates the families of the pupils (F) and the possible relations between these families, illustrated by lines. A line is drawn between the families and the box depicting structured social interactions in class, to illustrate that the pupils alternate between family life and their role as pupils in class.

Below the box, (T) illustrates a teacher interacting with parents and pupils.

Finally, the school level is illustrated by a box called headteacher - teachers interactions. These interactions, specified by the variables leadership, collaboration and consensus, are connected with the symbol for the teacher to illustrate the relation between the school level and the class level.

This model will be a reference for our discussion of interactions in bullying, and structured social interactions at class and school level that may be related to these particular kinds of interactions.

13.2 INTERACTIONS IN BULLYING

As we have discussed in chapters 2 and 3, interactions in bullying have not been a central object of previous research. An exception to this, is the pioneering study by Heinemann (1973). As will be recalled, Heinemann made some observations in Swedish schoolyards, and concluded that bullying was a mass attack directed against one particular pupil. The reason for this mass attack, was that some deviant behaviour on the part of the victim had

irritated a group of normal pupils, and by this transformed group harmony into tension and hostility, which was directed against the disturbing party; the victim. When the attack was over, and the tension released, the bullies regained their normal positions as pupils without any particular personal or role distractions.

In this way, Heinemann in fact made a distinction between the interaction in bullying, and a more permanent social structure. Heinemann, then, regards bullying as a kind of reactive aggression conducted by normal pupils, being part of normal social structures.

Theoretically, this distinction between general social structures and interactions in bullying, which at least is implicit in Heinemanns' reasoning, is valuable. But it is hard to believe that his conclusions are valid as a general description of bullying. As our review of previous research has demonstrated, the position as a bully is rather stable, and also related to personality.

The social context of bullying has also been discussed by other researchers, but we have argued in chapter 3 that context and interactions in bullying have not been clearly separated within such discussions, and that conclusions concerning interactions in bullying have been made without direct empirical evidence.

We have also not presented empirical data about the interaction in bullying, but rather some information about general social structures of units either high or low on bullying. Our intention is to make a general conception of the interaction in bullying, and relate this conception to the social contexts we have studied. The right part of our model presented in figure 13.1 concerns these interactions.

Our discussion about interactions in bullying will be introduced by a conception of the victim as a collective social reference for the bullies.

13.2.1 Collective social reference

When bullying is conducted by a group, the victim could be understood as a collective, negative reference for the bullies. An interesting issue, then, is to analyze how group affiliation is connected to such common reference on the part of the group members.

Georg Simmel, in his classic book, "Conflict and the Web of Group-Affiliations" (1964), states:

"..., the group as a whole may enter into an antagonistic relation with a power outside it, and it is because of this that the tightening of the relations among its members and the intensification of its unity, in consciousness and in action occur" (Simmel 1964, p. 91).

In addition to this, a common enemy can strengthen the relations within an established group, according to Simmel, and such a common negative orientation can also combine single individuals into a cooperating unit. He says:

"On the other hand, each element in a plurality may have its own opponent, but because this opponent is the same for all elements, they all unite - and in this case, they may, prior to that, not have had anything to do with each other;" (pp. 91-92).

And he continues:

" or they may have had, but now new groups emerge among them" (p.92).

His most radical statement about common opponents, is as follows:

"... even the bitterest enmities do not prevent an association if this association is directed against a common enemy" (p.103).

Simmel's principal thinking referred to above, is that a common opponent normally has a strong uniting effect between parties, who beforehand may have had different relationships to each other; positive, neutral or even negative (See also Allen 1981; Gaertner, Rust, Dovidio, Bachman, & Anastasio 1996; Graumann 1992; Sherif & Sherif 1953; Sorel 1974; Thompson & Sharp 1994).

Central in social psychology, is the idea of integrating effects coming from common orientations. A branch of social psychology, that explicitly concerns social integration in small social systems, is the so called equilibrium or balance theories. Implicit or explicit, these theories build on Mead's (1934) understanding of mutual perspectives and interaction by symbols. The theories are clearly cognitive in nature, and they all concern connections between collective orientations and social relations (Graumann 1992; Fehr 1996). In many ways, these theories also formalize the fundamental understandings of Simmel.

Festinger's theory of cognitive dissonance (1957) belongs to this tradition, but this theory is special by its general form and by a strong focus on individual orientations. Although social relations can also be analysed by the theory, Festinger's theory concerns first and foremost individual cognitions and relations between these. Cognitions are described as perceptions which the person has about him or herself and the surroundings. When these perceptions do not stand in a logical relationship to each other, cognitive dissonance will be the result. This is the dynamic element of the theory, since dissonance elicits a tendency to change towards consonance. Since cognitions may be representations of the individual and of his/her surroundings, the theory can in principle be used to analyse social relations. But this theory has mainly initiated research about individual attitudes and changes of attitudes on norms, values, and official persons etc.

Dyadic relations are most central within the balance theory of Heider (1944, 1946, 1958), and in Cartwright and Harary's extension and further formalization of the theory (1956). To understand central processes of a dyad, Heider regards the individuals as focal persons with individual orientations towards their surroundings. Most important for the focal person, is the other person in the dyad. Heider discusses different aspects of the dyadic relation, but "sentiments" or emotions are the aspects most relevant for us. Heider presupposes that both the focal persons of the dyad actively try to achieve a perception of mutual sympathy. This is called a balanced condition, which is attractive for both focal persons. This balanced condition is likely to emerge if the focal persons suppose that they have a common attitude, positive or negative, towards something important to them.

A third, and most relevant theory for our purpose, is the A-B-X theory (Newcomb 1953, 1959, 1961, 1971), which has been extended by Graumann (1992). Newcomb's original theory, even more than the two others, is inspired by Mead's (1934) concept and theory of mutual perspectives. Newcomb's theory concerns the relations between two individuals, A and B, and a third entity X. This conception is highly relevant to a general discussion of the interactions in bullying, of which A and B represent bullies, and X the victim.

To illustrate his theory, Newcomb uses a graph with three corners, A, B and X, in which A and B are persons who are oriented towards each other, and towards a third party, X. This X may be a third person or an object of any kind. Orientations between A and B are by Newcomb defined as attractions, while orientations towards X are called attitudes.

Newcomb makes a distinction between individual and collective A-B-X systems.

Individual systems

An individual system is a person's cognitive representation of him/herself, other persons and/or objects and the relations between these entities. Within an individual A-B-X system, then, the person A will attribute B's attitude towards X, and B's attraction towards him/herself, in addition to knowing his own attitude towards X and attraction towards B. Person A will be the owner of many such systems, of which most of them are latent ones. A system will be active when A is simultaneously oriented towards A-B-X.

Collective systems

Both person A and person B can be owners of individual systems which include the other. These individual systems are converted to a collective one when both are activated in such a way that both A and B believe that A-B-X is activated by the other. This will first and foremost be the case when A and B communicate about or with X (Graumann 1992).

Stability and change

A-B-X are, in the understanding of Newcomb, interrelated entities, so that changes located to one part of the system, will in principle influence the "rest" of the system. Thus, Newcomb regards A-B-X as a changing system. However, the principle of balance is a central part of the theory, and changes therefore will take place within limits (Graumann 1992). This will be the case both for individual and collective systems.

The A-B-X system will be balanced when A and B have the same attitude, positive or negative, towards X, and positive attraction towards each other, as both A and B understand it. Such balanced systems will be preferred by A and B. An unbalanced system will exist when A and B have the same attitude towards X, but at the same time have negative attraction towards each other, or when the attraction is perceived as different by the two parties. The system is also unbalanced when the mutual attraction between A and B is positive, and when A's attitude towards X is different from B's attitude towards this entity. Unbalanced systems are unpleasant for both A and B, and the more important X and the other person are, the more stressful the situation will be.

The unbalanced condition, is the dynamic element of the theory. The individuals within the system will be motivated to make the system a balanced one. Applied to the interactions in bullying, this dynamic element of the theory is highly relevant.

Graumann (1992) has extended the A-B-X theory of Newcomb, predominantly by including the significance of language, both when the content of perspectives and communication of perspectives are concerned.

13.3 APPLICATIONS TO BULLYING AND EXTENSION OF THE A-B-X THEORY

The A-B-X theory is a general conception of how attitudes on the part of two or more individuals towards a third party are connected to attraction between these individuals. In this way, bullying conducted by groups is an A-B-X system which could be characterized in specific ways.

13.3.1 Positive and negative orientations

During the interactions in bullying, the bullies demonstrate negative attitudes towards the victim. When bullies do this together, they also communicate to each other a common attitude towards a third party. According to the A-B-X theory, such a commonly demonstrated attitude will increase the attraction between A and B, in this case the bullies. Also, this commonly demonstrated attitude is negative.

The A-B-X theory does not distinguish between common positive and negative attitudes, when effect on attraction between A and B is concerned. Simmel (1964), concentrating on the integrating effects of collective antagonism, does not discuss these effects in relation to effects of collective, positive orientations. Several researchers, however, have concluded that conflicts seem to escalate processes of evaluation, so that both parties of a conflict make contrasts of standards in favour of themselves (Gaertner et al. 1996; Hamilton, Gibbons, Stroesser, & Sherman 1992; Hollander 1976). Common positive orientation and common antagonism towards a third party both have an integrating effect between A and B, according to Newcomb's theory. But probably, the integrating effects are not the same.

When the common attitude towards X is negative, the standard of X stands out as a negative reference, or one may say, a contrast to the standards of the cooperating A and B. This good-bad structure will probably be communicated between A and B, and by this, A and B will validate each other's good standard. This, one must suppose, will strengthen the

attraction between A and B in a special way, at least when the collective antagonism is demonstrated.

On the other hand, collective antagonism from A and B towards a third party demonstrates to both A and B what the other does to those he or she does not like, namely making coalitions to hurt such persons. This is likely to create some distrust between the two, probably also on a permanent basis, at least if common bullying is a regular occupation for the two.

Hence, collective antagonism creates an intense feeling of affiliation between A and B, but at the same time, distrust between them.

The situation will be somewhat different, when A and B articulate common positive attitudes towards a third party. The common agreement will, according to Newcomb's theory, increase the attraction between the two, but this will not be accompanied by distrust towards the partner. On the contrary, both of the two demonstrate their moral standard towards persons who are not part of the group at the moment. Collective positive feelings towards third parties may on a more permanent basis increase the attraction between the two.

When a group defines an opponent, not only intense processes of evaluation take place, but discipline within the group increases (Hollander 1976). Probably, this defines the power structure within the group in a very clear way. And for some, this may be a situation that places them in attractive positions within this clearly defined structure.

One important difference between positive and negative common attitudes, at least when accessible persons are involved as the third party, X, is that collective attraction towards this third party, makes A and B, as a group, open to membership from this third party. This may, or may not, be regarded as attractive for A and/or B. Probably, when A and B are good friends, and trust each other, including a third party will not be a threat to either of them. If, on the other hand, A and B do not trust each other, to include the third party may be regarded as a risky operation for one of them or both, because the new may join one of them against the other. This is not the case when the common attitude towards X is negative. The third party is, then, not welcome.

13.3.2 Affiliation and dominance

We regard the affiliation, or ingroup feelings, derived from a common antagonistic attitude towards the victim, as an important influence on the bullies.

In principle, such an ingroup feeling should be separated from another possible stimulus, the very nature of the relation between the individual bullies and the victim when bullying is going on. This relation could be conceptualized as a dominance-submission interaction (Olweus 1978, 1991, 1993; Roland 1995; Thompson & Sharp 1994), and analyzed for the positive stimulation on the part of the bullies.

Dominance is obviously not always perceived as unpleasant by the one who is influenced in this way. Bullying is a kind of dominating behaviour, however, which is perceived as unpleasant by the victim. The victim may provide the bully with significant signals of being in an unpleasant position arising from the behaviour of the bully as well as showing signs of incompetence to do something about the situation (Olweus 1978, 1991, 1993; Roland 1995; Thompson & Sharp 1994). This will probably validate in a particularly clear way the self perception of the bully as a person capable of dominating others. Having a capacity to master others confirmed in this particular way, may be more important for some pupils than for others.

In addition to increased attraction between the bullies, then, each bully may also be stimulated by the demonstrated capacity to dominate. Furthermore, it is probable that this demonstration of each other's individual and mutual capacity to dominate will increase the attraction between the bullies (Thompson & Sharp 1994).

When bullying is conducted by one pupil only, this effect of ingroup affiliation is not present. The stimulation from the dominance-submission interaction is present, however.

13.3.3 A present or non-present X

The X in the Newcomb theory, may be a person who interacts with A and B, but also an object of communication that is not present. Newcomb does not discuss this distinction, but it is probably important for several reasons.

When the X is a present interacting person, A and B have to concentrate not only on each others' perspectives on X, but also on this third party and what he or she is doing to A and B. As for collective antagonism towards X, this third party is in many ways a moving target. A and B have to direct energy towards X and they have to construct and reconstruct their understanding of the A-B-X setting quickly. This action and target directed attention, will to some degree make the coordination of behaviour between A and B central. The mutual feelings between them may be less central. As for common antagonism, then, a present interacting X makes the setting more action oriented than is the case when X is not present.

When X is present only as a symbol, or a memory, common antagonism from A and B towards X will not be demonstrated by interacting with X, but by interacting about this third party. A and B then, are able to concentrate on each other, and they are more free to construct a conception of X that is instrumental for the mutual attraction between the two, and to validate this to each other. As for collective antagonism from A and B towards X, this construction of the A-B-X reality will probably be to devalue the standard of X in general, and the standard of his or her behaviour towards A and B especially. This, we suppose, will create a special atmosphere of mutual support and intimacy between A and B.

Finally, X may be present, but excluded by A and B. This presupposes that X is attracted in some way to A, B or both. To exclude X, then, is to make X a bystander of a group that he or she is attracted to, but excluded from. An effective way to communicate his/her excluded position to X, would be for A and B to demonstrate to each other and to X mutual attraction and intimacy between the two of them. In much the same way as a nonpresent disliked X, a present, but excluded third party will create an intimate atmosphere between the two.

The aspect of a present or nonpresent disliked X, and the kind of negative interaction when X is present, is not a part of the A-B-X theory when the effect on attraction between A and B is concerned. We will hypothesize that a present interacting and disliked X will make the aspect of intimacy between A and B less central than exclusion of X or communication about a disliked third party will do. On the other hand, collective antagonistic interaction with a present X, will probably make the A-X and B-X relation more central than is the case for the nonpresent,-or a present excluded X. We also suppose that an interacting third party will make the A-X and B-X relation central in a particular way, when common antagonism is exposed, namely the dominance-submissive positions within these relations.

Moreover, we also assume that for settings that make intimacy most central, dominance-submission is also existent, and vice versa.

If intimacy is more central for girls than for boys, and dominance is more important for boys than for girls (Bennet & Cohen 1959; D'Andrade 1986; Maccoby & Jacklin 1980), we could expect that the interactions of bullying are somewhat different when the bullies are boys, than when the bullies are girls.

13.3.4 A socially distant or close target

As for bullying, a subtle connection may exist between a non present target and a socially close target, when the social effect of collective antagonism for the bullies is concerned. We have argued that for collective bullying, a nonpresent target probably increases the situational feeling of intimacy between the bullies. To have an effect of increased intimacy, a non present target must mean something socially to the bullies. The memories of the target must be relatively rich and socially potent so that the co bullies, by defining contrasting standards, are able to confirm each others' perspectives and thus be able to support each other and concentrate on each other. Most relevant for bullying; a non present target is often an excluded pupil. Also very central; to be excluded the target must be attracted to the bullies in some way. This is normally not the case if the bullies and the victim are socially distant from each other.

If the social effect of intimacy is more central for girls than for boys, it could be expected that the relative proportion of exclusion is greater for girls than for boys, and that girls more than boys bully pupils from their own class, and most often other girls.

If a pupil is socially distant from the bullies, he or she must probably be present to have an effect as a target of bullying. The action dimension of bullying is probably central when the target is present, both when the victim is socially close and distant. And we believe, then, that boys not only bully classmates, but also more socially distant pupils from other classes.

13.3.5 Capacity

Capacity is not part of the A-B-X theory. More precisely, Newcomb is not concerned about how effective the parties are, nor how effectively they cooperate, but on how attitudes towards X and attraction between A and B are interrelated.

Common attitudes towards X are obviously an element of, or necessary for, capacity to cooperate in relation to X. But capacity refers to the individual resources of A and B and the ability to coordinate these resources to achieve the preferred position towards X.

Consciousness of individual and joint capacity will probably be important for well being in general, and increasing joint capacity will very likely be connected with increasing mutual attraction (Thompson & Sharp 1994).

Also, if perception of capacity and attraction is important, the team will prefer to concentrate on those activities, related to certain kinds of X's, that the team has the capacity to handle. This selection of activities will probably also be influenced by the richness of individual and collective action repertoires the bullies possess. This conception could contribute to the understanding of what kind of pupils it is that often are targets of bullying from what kind of bullies, in different social contexts.

13.3.6 Bystanders

The A-B-X theory is a conception of how attraction between two persons is related to the attitudes these two have towards a third party, when attraction and attitudes somehow are communicated between A and B. Then, A and B is a group, interacting with or about X. Newcomb has not however, included bystanders to such an A-B-X system as part of his theory.

Bystanders could be defined as those who know that they all are concerned about A-B-X, without taking part in actions of this system. Bystanders may be strangers to each other or they may know each other well. Also, they may, or may not, communicate with each other about what they are observing.

Bystanding is characterized mainly by the observing position, not that much by interaction between bystanders. Thus, bystanders mostly have to guess, from the evidence, what the other bystanders think about A-B-X. The risk then, for false norms among bystanders, when A-B-X is concerned, is high.

In principle, the observing position of the bystanders, also make A and B dependent on signs, indicating what bystanders think about A-B-X. Also, this is the situation for X, if X happens to be a person. Both A and B then, and X if this is a person, run a high risk of being wrong about the real opinions of the individual bystanders.

People who are dependent on only vague signs about normative opinions of others, usually think that these opinions of others are less pro social or more anti social, than they really are when antisocial behaviour is going on (Rommetveit 1953; Hauge 1980). Such signs are probably of special importance within an (A-B-X) - Bystanders situation. If A and B conduct negative behaviour towards X, even an observing position of the bystanders is probably understood as a sign of acceptance, or anti social opinion, by both the individual bystanders, and A-B-X.

The (A-B-X) -Bystanders system, then, should be well designed for believing that the bystanders hold more anti social opinions than they really do. Such a fictive, anti social norm may stimulate, and not inhibit, negative behaviour of A and B towards X, and probably also have the same effect on the bystanders. Finally, a target of negative behaviour will find such a perceived norm frightening and humiliating.

As far as we know, the perceived opinions of bystanders of bullying have not been reported.

13.3.7 Changing positions

The positions as bullies and victims are positively intercorrelated, according to several investigations (Olweus 1978; Roland 1980; Vaaland 1995). Although this intercorrelation is not very strong, it is significant and interesting. It is also possible that the position as bystander is intercorrelated with both the two other positions. We can see at least two explanations for such an interrelation of positions:

- a. Stable aspects of personality and/or structured, social position may be partly similar.

As for bullies and bystanders, this does not seem to be illogical. To take part in, and to observe a given activity, probably reflects much of the same tendency, because bystanders usually identify themselves with what is going on (Bandura 1977). When bullying and being victimized are concerned, Olweus (1978) reports that some victims are provocative to the bullies. Such a provocative tendency may very likely also be directed towards convenient targets of bullying.

b. The positions as bully, victim or bystander may increase the possibility for one or both the other positions.

It is not unlikely that some bystanders change position from being bystanders to actually partaking as bullies. Also, being bullies may make some of these pupils unpopular so that they may be victims themselves from time to time. And it is not unlikely either, that being a victim will, for some of these pupils, escalate a tendency of revenge perhaps directed more towards other weaker pupils than their own bullies. And finally, a subtle tendency of power struggle may be part of the bullying. Top dogs of bullying groups may bully underdogs from time to time to discipline them.

A possible intercorrelation of the three positions, then, may be caused by a, b or both.

13.3.8 Summary

Bullying conducted by groups could be regarded as a coalition, with or without bystanders.

This particular kind of interaction could be regarded as a social field, that possesses some central social incentives, for the bullies, those of dominance and affiliation. Collective bullying makes the position of dominance very clear by the submissive position of the victim. In the same way, affiliation is clearly demonstrated by the excluded position of the victim. This general conception of the interactions in bullying was developed a bit further by discussing different relations between bullies and the victim, and by including bystanders in the conception.

When bullying is conducted by one pupil only, the aspect of group affiliation is not present in the way described above. But the dominance-submission aspect remains, and so does a possible impact from bystanders.

The above conception of interactions in bullying is a theoretical construction based on different theoretical approaches and empirical observations. The relevance of this conception of interactions in bullying should be tested empirically.

However, an indirect test of such a conception of interactions in bullying, could be to relate it to a conception of structured interactions at class and school level, as we also discuss our results concerning aspects of such structured interactions. In the first place, social structures at class level will be concerned.

This way of conceiving bullying brings up the distinction between the social interactions in bullying and the more permanent social structure of the class as illustrated in fig. 13.1. In this figure, structured interactions of the class are located in the middle of the model. Our general conception is that on-going interactions in bullying may be related to the more permanent social structure of class. In 13.4., we will discuss conceptions of more permanent social structures, and possible relations to interactions in bullying.

13.4 *SOCIAL STRUCTURE*

A core of any social theory is to understand how the present may be related to the past, and students of social theory are confronted with two broad and different frameworks to understand this relationship. Taking the risk of oversimplifying, we could say that one of these frameworks is concerned with rather stable social structures, while the other is concerned with on-going social interactions (Berger et al. 1989; Galtung 1971; Stinchcombe 1968).

Developing our conception of bullying, we have so far concentrated on the present, on-going interactions. And mostly implicit, we have been drawing on the theoretical framework of social interactionism. We have been doing this by referring to Newcomb's A-B-X theory, and related theories, and by extending the A-B-X theory and applying it to interactions in bullying.

Newcomb's theory is clearly part of the broad framework of social interactionism as the theory emphasises the on-going construction of reality of the A-B-X system by interactions between the parties of this system.

Social structuralism is also concerned with the present. But one major question which is asked, is how the past influences on-going interactions. As for individuals, the past will be remembered, and these memories will influence the way the individual conceives the present. As for small social systems, the roles, norms etc, of a particular group have been formed by the past, and present interactions will be influenced by these structures. Such small systems could be categorized as families, school classes, restaurants, and so forth. These institutions will be linked to each other in some kind of functional order, as will sub systems within them. In this way, society will consist of macro structures and structures at lower levels, organized as some kind of an organism of which each part is dependent on the others. This dependency will make the organism stable, so that dysfunctions will be corrected. This kind of structuralism, also called functionalism, represents a main version of the tradition (Stinchcombe 1968). But structuralism is not necessarily founded on this functionalistic perspective. Structured conflicts are also central in some versions of the structuralist tradition (Berger et al. 1989; Galtung 1971).

Structuralism, then, is not only concerned about how the past influences the present, but also about how different parts of a social system influence other parts of the system. Central in structuralism, is the conception of macro and micro structures (Berger et al. 1989), and in particular that a macro structure will influence a micro structure at least in a different way than a micro structure may influence the macro level. As for nations, the macro level will be the fundamental aspects of culture and the national political and bureaucratic systems. The micro levels in this perspective, may be hospitals and schools when formally organized systems are concerned. These institutions are given their legitimacy by the macro structures and they are linked to the top level as sub systems. The sub units may also be formally organized as hierarchical systems, such as schools are.

In this perspective, the mission of a school is to socialize the pupils to the standard defined by central and local authorities. The structure of a school will, then, have a function related to macro structures.

Beginning with a class, the structure of this sub unit should be related to the context of the school system and the particular school. But the pupils will also influence this structure according to their history of socialization, not least as members of families.

The interaction in bullying could be regarded as influenced by structures. Important structures are the personalities of the pupils and the social structure of class and school. Furthermore, we would say that interactions between pupils could modify or change structures. This could be the social structure of class, the school or even macro structures. The relationship between social structure of class and interactions in bullying, then, will be central.

13.4.1 The class as a social structure

We have regarded bullying as interactions that may be influenced by social structures of the class. It is necessary, then, to discuss the connection between social structure of the class and the particular interactions in bullying, as illustrated in fig. 13.1. Central for this discussion is to recognize that both informal relations, effectiveness, and norms are not regarded as context free but related to standards defined by the school.

Our class level investigation demonstrated that the three elements of structure we investigated; good informal relations between the pupils, effectiveness related to school work, and prosocial norms, were positively related to each other, and that good scores on structure were negatively related to class level estimates of bullying. An important theoretical question, then, is to ask why these connections come about.

Collaborative classes

For pupils in class, within the context of school, we regard accepted school norms and effectiveness related to school work as central elements of social structure. These two elements are, as we see it, mutually dependent on each other. School norms, or principles for subject learning and social behaviour at school, are necessary for effectiveness. And, effective schoolwork will probably generate common moral codes about behaviour that are functional to achieve effectiveness.

As for the informal relations between the members of the group, such mutually dependent elements of structure, effectiveness and norms, will probably increase mutual liking. Going back to the A - B - X theory of Newcomb, common norms for A and B should be regarded as common attitudes towards important X's, in this case official school standards. And consequently, commonly accepted school standards should increase mutual attraction between the two, or the members who agree on these perspectives on social behaviour. Such norms, then, should in principle increase the attraction between all members of the group. We also regard effectiveness as important for attraction between the members of a group. Members of effective groups, recognize that the others are dependent on their services, and that they need the services of the others. This is believed to generate mutual liking. In this way, both norms and effectiveness should be regarded as elements that increase mutual sympathy between the pupils.

It is reasonable, then, that the three aspects of structure are interrelated as our results from the classroom level investigation have demonstrated, and that high scores on the Structure variable indicate high degrees of collaboration.

Moreover, as a respected and well liked person, the teacher will hold a fortunate position as a strong centre of common attraction, on the part of the pupils. Thus, the teacher as a person could have an integrating effect on the class. Also, if the teacher is liked and respected, she or he will be in a fortunate position to organize effective school work, and to contribute to school norms within class. This, we think, makes the positive relation between our Management variable and Structure variable at classroom level reasonable. Also, the results from our field experiment indicate that the path model, figure 11.2., represents a causal structure. In our model, figure 13.1., the teacher is located below the social structure of class, and related to this structure.

Collaborative classes, then, are integrated units both when the pupil-pupil dimension is concerned, and when the vertical dimension of teacher-pupils' relations is in question. And by this the class is an integrated unit within the context of school. The level of bullying in such classes was low, according to our investigation.

Struggling classes

The class is not an informal group of children who have wanted to be members because of shared interests, or for other reasons. Instead, the children are forced to be pupils in a particular class, and they are different on background, abilities and opinions. We argue that such a formal group, containing great differences, probably needs strong integrating elements as described above, to become a collaborative unit.

Sub groups and isolates. Without such integrating elements, differences can hardly be coordinated. Consequently, a process of sub grouping will probably take place. Much of the natural variation will very likely be structured as a between group variance, and less variation will be located within the group. Some isolated pupils may also be found.

Pupils at risk, may be found as members of such sub groups in a class. This will happen, we believe, because such pupils at risk will find each other according to common standards of social behaviour, different from the school norms (Frude 1992). Pupils at risk, organized together in such informal sub groups, will probably not inhibit each other's potential for antisocial behaviour, but more likely stimulate each other to conduct such activities. Isolates may also be a consequence of poor integration of the different children in class. Such isolates will be unprotected and convenient targets of antisocial behaviour.

Sub groups and isolates will very likely create an in group - out group atmosphere within the class. The attraction within the group is stimulated by the common antagonism towards out groups and isolates. And probably, one or more sub groups will also take an antagonistic approach towards the school moral codes at the same time as some groups will support such moral codes (Frude 1992).

Very roughly, then, the class may be constructed by one or more sub groups supportive of the school, sub groups more or less antagonistic to school codes, and isolates.

The school supporting sub groups, will probably not have very clear borders between them, because the members are attracted by the same moral codes, the school's values. The school

antagonistic sub groups, will probably also be antagonistic towards the school supporting groups which represent school codes (Newcomb 1953, 1959, 1961, 1971).

Between these school antagonistic groups, we believe that borders are clear, but temporary. The antagonistic attitudes towards out groups and established school values, demand discipline within the groups, when these antagonistic attitudes are demonstrated in different ways. Some members may be forced to take roles that are unpleasant to them, and they will probably experience negative sanctions if not. Also, such an antagonistic atmosphere will probably tell members that they can be the next target. In general, then, antagonistic attitudes towards out groups and teachers will probably only temporarily create attraction within the group, but also tension and fear. We believe that underdogs within these groups will change groups for this reason. Also, we assume that the topdogs will pick different soldiers for different missions, and make collective antisocial behaviour an instrument not only for a feeling of ingroup attraction, but also an instrument for control and power within such groups (Thompson & Sharp 1994).

The risk of permanent or temporary isolation for some pupils will probably increase, and struggling classes will very likely have a higher number of isolated pupils than collaborative classes.

In general, our classroom level results demonstrated that classes high on bullying could be characterized by such social patterns as described above.

School level sub groups. It is likely that some members of antagonistic sub groups in class, also will be oriented away from the other pupils in this class, and towards some pupils that are members of the same kind of sub groups from other classes. This may lead to formation not only of sub cultures at risk at classroom level, but also of such sub cultures at school level (Størksen 1992). Such school level sub cultures, may be even more deviant than the classroom level ones. We suspect that members of such school level antagonistic sub groups often will be the topdogs of class level antagonistic sub groups, and that such school level sub groups also will have central power figures. These we suspect, will be the oldest or most experienced ones. To be members of such school level sub groups may give prestige and power within class level sub groups (Størksen 1992).

In this way, hierarchically organized networks of sub groups and individuals may develop at school, with the top figures of sub groups as links between the class and school level

groups. Thus, isolates in one class may also be introduced as targets for bullying to pupils from other classes. If so, this may help to explain why many of the victims were bullied by pupils from other classes, as our results have demonstrated.

13.5 *GENERAL CONFUSION AND COALITIONS*

If the social structure of the class is fragmented and confused in the way described, we believe that potential bullies are stimulated to conduct bullying. Confused power structures and labile patterns of affiliation, are at the time of group bullying transformed to a well defined dominance - submission, and included-excluded pattern in the favour of the bullies. As for bullying conducted by one pupil only, the group affiliation aspect is not present in the described way, but the dominance-submission aspect is well defined.

The described fragmented and confused structure, containing isolates, will probably also make more pupils convenient targets of bullying, because isolates are less protected than socially integrated pupils are, and because isolates also represent negative stigma. By bullying such a pupil, the victim stands out as a contrast to the standard of the bullies. Bystanders will probably more often take the side of the bullies. Finally, some of the victims may from time to time take the role of a bystander and even bullies, as a reaction to his or her position which is unpleasant both because of isolation and because of being a victim.

In conclusion, then, we believe that a fragmented and confused social structure in class stimulates social processes of struggle for more favourable positions, both positions of power and intimacy, and that some pupils will be instrumental targets for achieving such positions. But we also believe, that circularity of such processes exists. And this, we believe, will take place both within class and between classes.

The main results from our class level investigation demonstrate substantial; negative connections between estimates of collaboration and bullying, and the theoretical reasoning above is a discussion of why these connections existed. We are well aware, however, that several elements of this theoretical reasoning have not been investigated in an empirical way.

13.6 HEADTEACHER-TEACHER INTERACTIONS

The main conclusion from school effectiveness and school improvement research is that both pupils' performance and behaviour, estimated at school level, are related to headteacher-teacher interactions as indicated in fig. 13.1.

When bullying is concerned, our analyses of a small number of schools demonstrated that school level estimates of being bullied and bullying others were not strongly correlated. This is interesting, but the result faced us with some difficulties in relating bullying at school level to headteacher-teacher interactions. We ended up with an analysis of outliers, which demonstrated that the school high on both being bullied and bullying others also scored low on headteacher-teacher interactions. We regard this as an interesting but preliminary result.

One approach for further research on school level effects on bullying could be to include more schools in the sample than we were able to do. More intensive studies, comprising qualitative methods, of headteacher-teacher interactions are also needed.

Besides such aspects of methodology, some theoretical issues could be investigated more comprehensively. As indicated below, the conventional theoretical conception of headteachers' leadership -teacher collaboration - consensus within staff, could be a topic of great interest.

One aspect of professional behaviour both for headteacher and teachers is to implement routines for interactions about professional matters (Rosenholtz 1991). A high volume of such interactions could stimulate learning within the staff and consensus on matters which may be of some importance. Since a very common conclusion is that effective schools are high on consensus about teaching within the staff, an interesting question is whether it is the consensus per se or also the content of the consensus that counts. It should be reasonable to think that also the content of a consensus will be of importance, since some ways of teaching are related positively to pupils' learning outcomes and behaviour, and some are not. We have not investigated the content of professional "groupthink" within staff, but we realize that this might be of importance.

But a more advanced aspect of the leadership - collaboration - consensus conception is probably the question about a professional language and thinking within the staff (Lortie 1975; Rosenholtz 1991). By this we do not mean whether headteacher and teachers use a professional jargon when they discuss professional matters, but whether they possess theoretical models for practical work with the pupils and parents.

At least for Norwegian schools, our impression is that teachers often possess methods for many different aspects of teacher- pupil interactions. But very few may have the training for abstract thinking about how such different methods may be, or may not be, related to each other according to principles of teaching (see Munthe 1997).

Methods to counteract bullying could be of special interest if we were to investigate such a capacity for theoretical reasoning and communication between headteachers and teachers, because bullying is more remote from teacher-pupil interactions than ordinary classroom activities are. Consequently, methods to prevent and stop bullying could be rather isolated from classwork management if such a capacity is missing within staff.

This capacity for theoretical reasoning and communication within staff, headteachers' competence to enhance such a capacity, and content of models could be investigated and related to bullying among the pupils.

The theoretical model presented in fig. 13.1. comprises the element of headteacher-teachers interaction, and we realize that our own investigation about how such school level interactions may be related to bullying, has only brought up preliminary results.

13.7 *HOMECONDITIONS AND INDIVIDUALITY*

The homeconditions - personality - bullying conception has always been very central within the research tradition of bullying in school, as it also is in our theoretical model outlined in fig. 13.1. .

13.7.1 Networks, families and individuals

The upper, left part of our model illustrates the families (F) of pupils in class, and the lines between the families are meant to illustrate the possible social network between the families. We are not aware that inter-familial relations have been related to bullying, but we suspect such networks to be an interesting part of the context of bullying between pupils. Central concepts of social network theory, concerning both quality of relations between members, and structural aspects of the network, could be interesting approaches (Abernethy 1983; Barnes 1954; Bott 1957; Bronfenbrenner 1979; Cochran & Brassard 1979). Interesting also, could be to investigate community issues that may be related to inter familial networks, or otherwise be related indirectly or directly to bullying.

But not only relations between families are of interest of course. Relations within the family circle will be vital for all pupils, as family life will be important for how the personality of the child develops. It is well established that some unfortunate home conditions are related to aggressive behaviour on the part of the child, but the empirical evidence for such relations between family variables and tendency to bully others and to being bullied is more limited. In our own investigation, the relationship between an estimate of home conditions and bullying at class level was not very strong. We realize, however, that our estimate of home conditions is very simple, and that a more comprehensive study could have found other results.

It is central in our research tradition to regard personalities of the pupil as a mediating factor between home conditions and bullying, and our theoretical model takes care of this conception. This is recognized by the position of individual pupils in the model. We have not, however, included traits of personality in our investigation.

Besides traits of personality that could be influenced by homeconditions, or otherwise, the gender of the pupils should be given a prominent position within a theoretical model of bullying.

13.7.2 Gender

A consistent result from research about social behaviour among boys and girls, is that boys more than girls are concerned with dominance and action, and that they communicate disagreements in a more direct way than girls. Girls communicate, more often than boys, such disagreements in an indirect way, and girls are more concerned about intimacy and affiliation than boys (Bjerrum Nielsen & Rudberg 1989; D'Andrade 1966; Fehr 1996).

It may be reasonable, then, to hypothesize that boys and girls may conduct bullying in somewhat different ways, and that they to some degree may select different targets. Family conditions and social contexts at school and in class may also be of different importance for boys and girls, both when bullying others and being bullied is concerned.

13.8 *A CONCLUDING REMARK*

Our review of previous research demonstrated that the main body of studies has been concerned about the connections between personality and being a bully or a victim, and to some degree, the relations between home conditions, personality, and bullying has also been addressed. Indeed, several interesting and important relations have been established.

How social structures at school and classroom level influence bullying at school and class level has been the main question in our own studies. These studies indicate that school level variables are related to the amount of bullying in schools, but our conclusions are preliminary because of some methodological problems. When the classroom level is concerned, we have concluded that leadership on the part of the teacher and the social structure of the class are connected with class level estimates of bullying. A school field experiment strongly indicates that a causal connection exists between quality of leadership and amount of bullying at classroom level.

An interesting next step for research could be to combine individual and context variables. We are not aware of any research in which the home conditions - personality - bullying relation has been analyzed within different social contexts. It should be of great interest, then, to study whether the strength of relations between family variables, personality and

different aspects of interactions in bullying are equal under the conditions of different social contexts, both at classroom level and school level.

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The Centre for Behavioural Research conducted two similar studies during spring 1995; a national study and a study restricted to Vest-Agder County. Instructions given in the Teacher Questionnaire and Pupil Questionnaire were identical in the two studies.

15. APPENDIX 1

Information for Teacher Questionnaire

The 'School Environment -95' survey is being carried out by the Centre for Behavioural Research, a national resource centre for special education and a part of Stavanger College. The survey includes approximately 300 randomly chosen school classes. The purpose of the survey is to gain further knowledge about what creates a good school environment and reduces occurrences of psycho-social problems among the pupils, i.e. emotional, behavioural and social difficulties.

As a part of this survey, we would ask you to answer the attached questionnaire. The questionnaire contains questions about class environment, school culture, working environment, and collaboration at your school. The main elements of the survey are the same for the whole country, however, the general arrangements for Vest-Agder differ somewhat from the rest of the country.

Vest-Agder

In Vest-Agder, the teacher questionnaire will be completed by all the school's teachers.

The first section of the questionnaire concerns the class. All homeroom teachers will reply for their homeroom class. Those teachers, who do not function as homeroom teachers, will reply on the basis of the class they have the most lessons with.

Remaining municipalities

The teacher questionnaire should be filled in by the homeroom teacher and by other teachers who instruct this class for a good number of lessons. When asked about conditions in the

class or your work in the class, you should answer on behalf of the class participating in the survey.

The survey is anonymous and all data will be treated strictly confidentially. This implies that names are not to be written on the completed questionnaires. However, to allow us to connect pupil and teacher replies, we ask you to state the name of the school and the name of the class. School and class names will be changed to number codes when the replies are logged for electronic data use.

We assure you that all survey information will be reported in such a manner that it will not be possible to recognise the individual teacher's replies. The survey is approved by the Data Inspectorate and the school board of the participating municipalities.

Completed questionnaires are to be put into the enclosed envelopes, sealed and delivered to the survey contact person at your school, who will send both teacher and pupil questionnaires to the Centre for Behavioural Research.

We hope you can spare the time to answer these questions in an accurate and precise manner.

Thank you in advance.

Erling Roland
Centre Director

Edvin Bru, dr. philos.
Project Manager

1. Firstly, we would like to know which school you work at

I work at _____ school

2. How long have you worked at this school? _____?

3. Which class are you answering on behalf of? _____ (ex. 5A)

4. How long have you taught this class? _____ Years

5. Are you the homeroom teacher for this class?

Yes

☐

No

☐

6. How many pupils are there in this class?

Number of girls: _____

Number of boys: _____

7. How many teachers (including yourself) teach this class? _____ teachers

8. Gender

Female

☐

Male

☐

9. Age?

Younger
than 25

☐

26 - 30

☐

31 - 40

☐

41 - 50

☐

51 - 60

☐

61 or older

☐

10. How many years' experience do you have
as a teacher?

Less than
5 years

☐

5 - 10
years

☐

11 - 20
years

☐

More than
20 years

☐

11. Do you work full-time or part-time? _____ %

12. Education

College of Education

☐

University Degree

☐

Special ed./ social ped./ pedagogics

☐

Other (State what)

☐

Leadership (1A)

Draw a circle around the number that best expresses to what degree the individual factors are a source of stress at work.

	Not stress- full					Very stress- full
1. Relationship with superiors	0	1	2	3	4	5
2. The manner in which the school is run	0	1	2	3	4	5
3. Management does not understand the problems connected with the work	0	1	2	3	4	5
4. Management's decision strategies	0	1	2	3	4	5
5. Lack of management support in daily work	0	1	2	3	4	5
6. Lack of management support in collaboration with parents	0	1	2	3	4	5
7. Management's organisation of the work	0	1	2	3	4	5
8. Management's acceptance of pedagogic freedom	0	1	2	3	4	5

Professional Cooperation (1B)

Collaboration system:

The system of collaboration used at school is communication between colleagues concerning circumstances which deal with teaching as an occupation, such as collaboration on planning instruction, peer supervision, in-service teaching (feed-back from course participation, etc.), and collaboration on development work (project groups).

Collaboration in planning teaching

Collaboration in planning teaching means that teachers help one another to prepare plans for instruction and tests, general co-ordination of instruction between those who teach the same class, and exchange of information about pupils and classes.

	Does not fit			Fits perfectly		
1. Collaboration in planning teaching occurs regularly at our school.	0	1	2	3	4	5
2. I partake in collaboration in planning instruction.	0	1	2	3	4	5
3. Collaboration between teachers is well organised at our school.	0	1	2	3	4	5

Peer supervision

Peer supervision means that teachers exchange views and advice concerning general and more concrete circumstances related to their work.

	Does not fit			Fits perfectly		
1. Peer supervision occurs regularly at our school.	0	1	2	3	4	5
2.. I partake in peer supervision.	0	1	2	3	4	5
3. Peer supervision is well organised at our school.	0	1	2	3	4	5

In-service teaching

In-service teaching means that teachers give feed-back other taking part in courses, give a short, professional lecture on teaching methods they have tried, a book they have read, etc.

In-service teaching can take place on days such as in-service days.

	Does not fit					Fits perfectly
1. In-service teaching occurs regularly at our school.	0	1	2	3	4	5
2. I have prepared and given professional lectures for my colleagues.	0	1	2	3	4	5
3. In-service teaching is well organised at our school	0	1	2	3	4	5

Development work (project groups).

Development work means that teachers collaborate in developing greater experience within some of the school's activities, which will benefit some or all colleagues. Examples of this could be collaboration to improve teaching methods in Norwegian, school-home relationships etc.

	Does not fit					Fits perfectly
1. Development work occurs regularly at our school.	0	1	2	3	4	5
2. I partake in development work.	0	1	2	3	4	5
3. Development work is well organised at our school.	0	1	2	3	4	5

Consensus (1C)

	Agreement	Does not					Fits perfectly
		fit					
1.	The teaching staff has a joint goal for the school's activity.	0	1	2	3	4	5
2.	The teachers at our school generally use the same teaching methods.	0	1	2	3	4	5
3.	The teachers at our school use the same methods to deal with disruptive behaviour among the pupils.	0	1	2	3	4	5
4.	The teachers at our school use the same routines for recess duty.	0	1	2	3	4	5
5.	The teachers at our school use the same methods to deal with bullying.	0	1	2	3	4	5
6.	My teaching methods are based on a common understanding among the teachers.	0	1	2	3	4	5
7.	My teaching methods are based on a common understanding with the principal.	0	1	2	3	4	5
8.	At our school, teachers feel it is important to work well with the parents.	0	1	2	3	4	5
9.	All in all, being in agreement is typical of our school.	0	1	2	3	4	5

Questions about the class

Below you will find some statements about your class. Draw a circle around the answer that best fits your opinion of the class and your work in the class. If you completely agree with the statement, draw a circle around YES. If you totally disagree, draw a circle around NO. If you feel that the statement is mostly true, choose yes, but if you feel that it is mostly false, choose no.

Management T (1D)

Caring T

1.	I know my pupils' hobbies and interests.	YES	yes	no	NO
2.	I am busy helping individual pupils who have problems.	YES	yes	no	NO
3.	I feel attached to all my pupils.	YES	yes	no	NO
4.	I care about each and every one of my pupils.	YES	yes	no	NO

Teaching T

1.	When I teach <i>the whole class</i> , I am certain of the methods I use.	YES	yes	no	NO
2.	When the pupils do group work I am certain of the methods I use.	YES	yes	no	NO
3.	When the pupils work on their own I am certain about the methods I use.	YES	yes	no	NO
4.	When the class changes activities I am certain of the methods I use.	YES	yes	no	NO

Monitoring T

I carefully monitor:

a.	the pupils' homework.	YES	yes	no	NO
b.	the pupils' work during the lessons.	YES	yes	no	NO
c.	the pupils' behaviour during the lessons.	YES	yes	no	NO
d.	the pupils' behaviour during recesses.	YES	yes	no	NO

Intervention T

1.	I have rules for what the pupils can and cannot do.	YES	yes	no	NO
2.	I have procedures for how to deal with pupils who break the rules.	YES	yes	no	NO
3.	I have good, well established methods to help insecure children feel more secure.	YES	yes	no	NO
4.	I have good, well established methods to help reserved children become more active in school situations.	YES	yes	no	NO
5.	I have good, well established methods for developing a child's social behaviour.	YES	yes	no	NO

Social structure T (1E)

Relations T

1.	Most of the pupils are good friends.	YES	yes	no	NO
2.	The pupils help each other when necessary.	YES	yes	no	NO
3.	The pupils are not always certain that all their classmates are their friends.	YES	yes	no	NO
4.	There are small groups of pupils that are not friends with the other pupils in the class.	YES	yes	no	NO
5.	The pupils who take control in class, support the teachers.	YES	yes	no	NO
6.	The pupils who take control in class, are kind to their classmates.	YES	yes	no	NO
7.	Some pupils try in vain to become friends with others in the class.	YES	yes	no	NO
8.	Many pupils persistently try to take control.	YES	yes	no	NO

Effectivity T

1.	Most pupils listen attentively when I instruct the whole class.	YES	yes	no	NO
2.	When the pupils do group work, most of them concentrate on their work.	YES	yes	no	NO
3.	When the pupils work on their own, most of them concentrate on their work.	YES	yes	no	NO
4.	When the lesson starts, most pupils concentrated on what is to be done.	YES	yes	no	NO
5.	When I tell the pupils that we are going to change activity, most of them do so quickly and quietly.	YES	yes	no	NO

Norms T

1.	Most pupils agree that schoolwork is important.	YES	yes	no	NO
2.	Most pupils agree that one should do as the teacher says.	YES	yes	no	NO
3.	Most pupils agree that it is wrong to bully others.	YES	yes	no	NO
4.	Most pupils agree that it is right to help other pupils who are being bullied.	YES	yes	no	NO

additional items

Professional support

		Does not fit					Fits perfectly
1.	Should I have problems with pupils, the principal will support me.	0	1	2	3	4	5
2.	Should I have problems with pupils, my colleagues will support me.	0	1	2	3	4	5
3.	Should I have problems with a class, I would try to hide the fact from the principal.	0	1	2	3	4	5
4.	Should I have problems with a class, I would try to hide the fact from my colleagues.	0	1	2	3	4	5
5.	My colleagues are always glad to hear that my teaching is going well.	0	1	2	3	4	5

Proud

	Does not fit				Fits perfectly	
I am proud of being an employee of this school.	0	1	2	3	4	5

Authority

1.	The pupils of my class believe I am competent in the subjects I teach.	YES	yes	no	NO
2.	The pupils of my class have confidence in my ability to organise the schoolwork.	YES	yes	no	NO
3.	The pupils of my class have confidence in my ability to prevent or stop disruptions among the pupils.	YES	yes	no	NO
4.	The pupils of my class have confidence in my ability to prevent or put a stop to bullying.	YES	yes	no	NO
5.	The pupils of my class believe that I care about them.	YES	yes	no	NO

Pupil related stress

	relationships with pupils	No strain				A lot of strain	
1.	Pupils who disrupt the class	0	1	2	3	4	5
2.	Pupils who oppose the teachers	0	1	2	3	4	5
3.	Pupils who have little motivation for school work						
4.	Pupils who threaten classmates	0	1	2	3	4	5

Popularity of bullies

Pupils who bully others are the most popular in the class.	YES	yes	no	NO
--	-----	-----	----	----

16. APPENDIX 2

Student Information

Your class has been chosen to participate in a survey we have called 'School Environment - 95'. Approximately 8000 students from 300 randomly chosen classes will participate in the survey, which is being carried out by the Centre for Behavioural Research at Stavanger College. The survey has been approved by the Data Inspectorate as well as the school boards of the participating municipalities.

The purpose of this survey is to gain further knowledge about how a good school environment and student well-being can be achieved.

As part of the survey, we would ask you to fill in the questionnaire you now have in front of you. It is important that you answer the questions honestly and accurately, however you do not have to use too much time thinking about each question. The best answer is often the first thing that comes to mind right after hearing or reading the question.

Your teacher will read all the questions and you are to answer the questions directly after each question has been read.

Do not write your name on the questionnaire. All replies are anonymous. No other students, teachers, or any other school personnel will see your answers. Only you will know what you have answered.

Completed questionnaires will be collected at the end of the lesson and put in an envelope, which will be securely sealed. The class teacher and the students' representative will hand or carry the envelope to the survey's contact person at the school, who will send the replies to the Centre for Behavioural Research.

Thank you in advance!

Erling Roland
Centre Director

Edvin Bru

17. STUDENT QUESTIONNAIRE

© Senter for atferdsforskning

1. What school do you attend? _____

2. What is the name of your class (e.g. 5A)? _____

4. How many students are there in your class? - _____

5. Are you a boy or a girl

Boy

☐

Girl

☐

6. How long have you attended this school?

Since
1st grade

☐

2 - 4 years

☐

Less than
1 year

☐

7. How long have you lived in the neighbourhood of this school?

Always

☐

More than :
years

☐

1 - 4 years

☐

Less than
1 year

☐

8. If you were not born in Norway, write the name of the country you were born in below:

9. Whom do you live with? (tick off those whom you normally live with)

Mother

☐

Other children

☐

Father

☐

Foster parents

☐

Sisters/Brothers

☐

Others

☐

One of your parents' new
husband/ wife or cohabitant

☐

You live at an orphanage

☐

10. Now we would like to ask about your mother and father. (Write down which occupations your mother and father have. Should they work at home (housewife/housefather) or be unemployed, tick off the appropriate box below.)

Occupation:	Work at home	Unemployed
Mother is:	<input type="checkbox"/>	<input type="checkbox"/>
Father is:	<input type="checkbox"/>	<input type="checkbox"/>

Management P (2B)

Below you will find some statements about your class situation. Draw a circle around the answer that best fits your opinion of the situation. If you completely agree with the statement, draw a circle around YES. If you totally disagree, draw a circle around NO. If you feel that the statement is mostly true, choose yes, but if you feel that the statements is mostly false, choose no.

Caring P

- | | | | | |
|--|-----|-----|----|----|
| 1. My teachers are my good friends. | YES | yes | no | NO |
| 2. My teachers know what interests I have, and what I do in my spare time. | YES | yes | no | NO |
| 3. If I have any problems, my teachers are always willing to help me. | YES | yes | no | NO |
| 4. I feel that my teachers care about me. | YES | yes | no | NO |

Teaching P

- | | | | | |
|--|-----|-----|----|----|
| 1. When we do group work, teachers explain well. | YES | yes | no | NO |
| 2. The teachers are good at instructing the whole class. | YES | yes | no | NO |
| 3. When we work on our own, teachers explain well. | YES | yes | no | NO |
| 4. When we change activity, teachers explain well. | YES | yes | no | NO |

Monitoring P

1.	Our teachers make sure we do our homework properly.	YES	yes	no	NO
2.	Our teachers make sure we do our best in class.	YES	yes	no	NO
3.	Our teachers make sure we behave well in class.	YES	yes	no	NO
4.	Our teachers make sure we behave well during recess.	YES	yes	no	NO

Intervention P

1.	When students disrupt, teachers deal with it well.	YES	yes	no	NO
2.	When students bully others, teachers deal with it well.	YES	yes	no	NO
3.	If my teachers discover bullying/harassment among my <u>classmates</u> , they would do everything possible to put a stop to it	YES	yes	no	NO

Social structure P (2B)

Relations P

1.	Most students in my class are my good friends.	YES	yes	no	NO
2.	My classmates help me.	YES	yes	no	NO
3.	My classmates like to be with me.	YES	yes	no	NO
4.	I like to be with my classmates.	YES	yes	no	NO
5.	Some of my classmates are not friends with all the other students in my class.	YES	yes	no	NO
6.	Classmates who like to take control behave nicely towards all the students in my class.	YES	yes	no	NO
7.	Many students will do anything in order to be friend with others in the class.	YES	yes	no	NO
8.	Many of my classmates want to make decisions on behalf of the class.	YES	yes	no	NO

Effectivity P

1.	While the teachers are <i>instructing the whole class</i> , most students listen attentively.	YES	yes	no	NO
2.	When we do <i>group work</i> , most students concentrate on their work.	YES	yes	no	NO
3.	When we work <i>on our own</i> , most students concentrate on their work.	YES	yes	no	NO
4.	Most students are ready to start their school work as soon as the lesson begins.	YES	yes	no	NO
5.	When we change activity, most students do this quickly and quietly.	YES	yes	no	NO

Norms P

1.	<i>Most of my classmates</i> feel that schoolwork is important.	YES	yes	no	NO
2.	<i>Most of my classmates</i> feel we should do as the teachers say.	YES	yes	no	NO
3.	<i>Most of my classmates</i> feel it is wrong to bully others.	YES	yes	no	NO
4.	<i>Most of my classmates</i> feel we should help those who are being bullied.	YES	yes	no	NO

Family (2C)

We are interested in what opinion you have of your relationship to your family (put an X in the appropriate box)

	Agree completely	Agree	Disagree	Totally disagree
1. I feel very close to my family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. My family takes me seriously.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I can contribute, support and be of use to my family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. My family considers my opinions important.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I am an important part of my family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I can always count on my family when I need help.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Bullying (2D)

Bullying or harassment occurs when one or more students (together) are unfriendly or unpleasant towards a student who cannot defend him/herself very easily. This can include that the student is *kicked, hit or pushed*. Another definition of bullying is when a student is *teased*, or if a student is *ostracised*.

Bullying/harassing others		Never	Some times	About every week	About every day
1	During this school year, how often have you bullied/harassed other students at school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Been bullied/harassed		Never	Some times	About every week	About every day
2.	How often this school year have you <u>been</u> bullied/harassed at school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

additional items

Trusting teachers

	Agree completely	Agree	Disagree	Totally disagree
The grown-ups at home trust my teachers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

About helping others

If the need arose, I would help :

1.	My friends	YES	yes	no	NO
2.	The teachers	YES	yes	no	NO

Well-being

- | | | | | | |
|----|-----------------------|-----|-----|----|----|
| 1. | I enjoy the lessons. | YES | yes | no | NO |
| 2. | I enjoy the recesses. | YES | yes | no | NO |

Popularity of bullies

- | | | | | |
|--|-----|-----|----|----|
| Pupils who bully others are the most popular in the class. | YES | yes | no | NO |
|--|-----|-----|----|----|

Antisocial behaviour

- | | No, never | Some times | About every weel | Almost every day |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. Do you receive reprimands from the teacher because you disrupt the class? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Do you ever get into serious arguments with your teacher? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Do you ever skip school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Do you ever take part in destroying e.g. things or buildings? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Do you ever snatch or steal things? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Do you ever get into serious arguments with other students? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Do you ever get into serious fights with other students? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Do you join the gangs that gather around to watch students fight? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. During the school year, have you ever participated in bullying/harassing the teachers at school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

