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The classroom as context for bullying

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Chapter 1

Introduction

1.1 The bullying problem

Bullying at school is a complex social problem. It is traditionally referred to as “intentional and harmful behavior which is targeted repeatedly at one and the same individual who finds it difficult to defend him- or herself” (Olweus, 1993). Building on this interpretation of bullying, researchers recently questioned the repetitive nature of bullying, because a single bullying incident can also be very harmful to the victims. Instead of the repetitive nature, the newly proposed theoretical definition puts more emphasis on three key elements of bullying, namely goal-directed behavior, a power imbalance, and victim harm, which are supported by theory and empirical research. In accordance, labeling bullying as “aggressive goal-directed behavior that harms another individual within the context of a power imbalance” (Volk, Dane, & Marini, 2014). Bullying occurs physically (e.g., kicking), verbally (e.g., name calling), relationally (e.g., gossiping), and occurs as cyberbullying (Craig et al., 2009).

The size of the problem is evident from the statistics on peer victimization. In Europe and North America on average approximately 30% of school students are occasionally victimized by schoolmates, whereas 10% are chronically victimized (Chester et al., 2015). In the Netherlands, a recent large-scale investigation showed 10% “occasional” victims and 2.5% chronic victims in primary education (Scholte, Nelen, de Wit, & Kroes, 2016). This means that there are two or three victims in a classroom of 25 students in school. Victims of bullying often have poor academic performance, poor social relations with others, and mental health problems in childhood and adolescence (e.g., high anxiety and depression) (Reijntjes, Kamphuis, Prinzie, & Telch, 2010). Fear of being bullied by school or classmates is also one of the major reasons why students miss school (Stam, Vreeburg-van der Laan, 2013).

In view of the detrimental effects of bullying, the effectiveness of measures to stop bullying behavior has been at best moderate, making it an ongoing concern for schools, teachers, and parents (for a review: Rivara & Le Menestrel, 2016). It is therefore important to understand when and under what conditions bullying is higher and persists in schools and classrooms. This thesis is aimed at gaining more insight into the processes underlying the incidence and development of bullying in primary education. The focus is on the classroom context.

1.2 The classroom context

The classroom is a relevant social context for studying bullying because students are

designated members of a particular classroom. Students spend most of their school time with their classmates, playing, talking, and working together. Naturally, students form interpersonal relationships with their classmates that are positive, such as friendship, helping or liking, or negative, such as disliking and perhaps bullying or victimization, or both.

In a large-scale study, it was found that 13% of total variation in victimization was due to classroom differences (Kärnä, Voeten, Poskiparta, & Salmivalli, 2010; Salmivalli, 2010). Classrooms also differ with regard to other bullying-related behaviors, such as reinforcing the bully and defending the victims (Kärnä et al., 2010). Although its relevance is widely acknowledged by bullying researchers, the classroom as a determinant of bullying is an understudied topic in bullying research (Juvonen & Graham, 2014; Salmivalli, 2010). I focus on classroom composition (referring to structure and stability) and climate (referring to friendship relationships and bullying norms).

Previous research considered bullying (Caravita, Sijtsema, Rambaran, & Gini, 2014; Merrin et al., 2018; Sentse, Kiuru, Veenstra, & Salmivalli, 2014; Sijtsema, Rambaran, Caravita, & Gini, 2014), victimization (Lodder, Scholte, Cillessen, & Giletta, 2016; Sentse, Dijkstra, Salmivalli, & Cillessen, 2013; Sijtsema, Rambaran, & Ojanen, 2013), and defending (Sijtsema et al., 2014; Ruggieri, Friemel, Sticca, Perren, & Alsaker, 2013) mainly as individual behavior. Notwithstanding the progress made in understanding individual bullying behavior, researchers increasingly recognize that bullying is relational, and that a relational approach allows for a more nuanced understanding of *who bullies whom in the classroom* (Rodkin, Espelage, & Hanish, 2015; Veenstra et al., 2007). This is also the approach taken in the four studies in this thesis. Bullying can be seen as a network relationship between two students (student i indicates another student j as his or her bully, in network analysis often called the (directed) tie from actor i to actor j) (Rodkin et al., 2015; Veenstra et al., 2007). Similarly, defending can also be seen as a network relationship (student i defends a specific victim j) (Sainio, Veenstra, Huitsing, & Salmivalli, 2011).

Figure 1.1 provides an illustration of both for just five students. They can be seen as a simplified snapshot of students' reports of the negative and positive interpersonal relationships with their classmates at a particular time point. In this illustration, two children, one girl (2) and one boy (4), have indicated to be bullied by the same boy (3). Both of these victims have also indicated to be defended (girl 1 defends girl 2 and boy 5 defends boy 4). This oversimplified version of a classroom network illustrates how behaviors related to bullying are directed toward specific peers, and that this relational aspect, *who bullies (defends) whom*, can be analyzed more precisely with a social network approach.

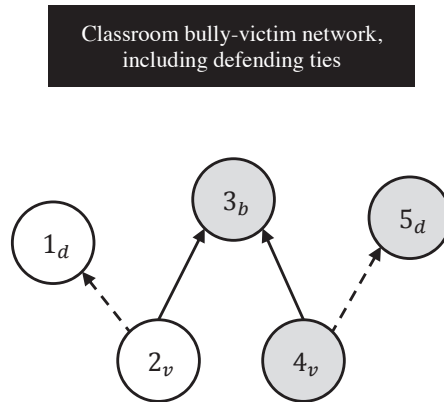


Figure 1.1 Illustration of a bully-victim network including defender nominations.

Network contains three boys (gray) and two girls (white), one bully (*b*), two victims (*v*), and two defenders (*d*; 1 among the girls and 1 among the boys).

Previous social network research used cross-sectional data to explain the network structure of bullying networks and defending networks with Exponential Random Graph Models (ERGMs at one time point; e.g., Huitsing & Veenstra, 2012; Huitsing et al., 2012; Huitsing & Monks, 2018; Oldenburg, van Duijn, & Veenstra, 2018). With longitudinal data, social network researchers are able to explain changes in the network structure of bullying networks and defending networks using Stochastic Actor Oriented Models (SAOMs using RSiena; e.g., Huitsing, Snijders, van Duijn, & Veenstra, 2014; van der Ploeg, Steglich, & Veenstra, 2019). The four social network studies in this thesis, two of which are cross-sectional using PNet (Wang, Robins, & Pattison, 2009) and two of which are longitudinal using RSiena (Snijders, van de Bunt, & Steglich, 2010), utilize the insights provided by previous social network studies, and advance them by investigating classroom factors.

In the following sections, I discuss the background and aims of each study. In the first part of the thesis, I examine the impact of classroom composition, by examining whether victimization depends on (relative) age differences or grade differences between children in classroom (Chapter 2) and whether victimization depends on stability and change in student classroom composition (Chapter 3). In this first part, I focus on victim-bully networks. In the second part, I take into account the interdependence of bullying and defending networks with other positive and negative network types, when examining the relation between friendship networks and victim-bully networks (Chapter 4) and the relation between (dis)liking networks and defending networks and whether the classroom bullying degree (classroom climate) affects this relation (Chapter 5). Figure 1.6 provides an overview of this.

The four studies in this thesis are part of a larger ongoing project on the consequences and antecedents of victimization in school. The data used in the four studies in this thesis come from the KiVa program in the Netherlands. These data have been used in other recent KiVa studies on a variety of important bullying research topics (e.g., networks of victimization: Huitsing et al., 2014; teachers and victimization: Oldenburg et al., 2015; intensity of victimization: van der Ploeg, Steglich, Salmivalli, & Veenstra, 2015; persistency in victimization: Kaufman, Kretschmer, Huitsing, & Veenstra, 2018).

KiVa is Finnish for “nice” and an abbreviation for the Finnish sentence “a nice school without bullying”. The KiVa program was first introduced in Finnish schools in 2007-2008, and demonstrated to be effective in a large sample across grades 4 to 6 (Kärnä et al., 2011). KiVa not only reduced school bullying, but also significantly improved the social and mental health and well-being of victims. KiVa was also proven to be successful in other countries (e.g., Italy: Nocentini & Menesini, 2016; the UK: Hutchings & Clarkson, 2015).

Over a period of two years (May 2012 to May 2014), the KiVa experiment was implemented in 99 elementary schools in the Netherlands (Huitsing et al., 2019; Kaufman et al., 2018). As part of the experiment, the participating schools were randomly assigned by the Netherlands Bureau for Economic Policy Analysis (CPB) to either the control condition (34 schools) or to one of the two intervention conditions (33 in the KiVa condition and 32 in the KiVa+ condition). The KiVa+ condition received additional materials to reduce school bullying.

All data analyzed in this thesis come from the schools that were in the control condition in order to avoid that differences between classrooms (our context of analysis) were a result of the intervention, and to follow the “natural” process of bullying. It is important to note, however, that during the intervention period (2012-2014), bullying received intense media attention in Dutch society. This was guided by recent tragedies involving suicidal incidents that were directly related to the consequences of bullying.

1.2.1 Part I A: Classroom structure and peer victimization

As most schools across the world traditionally have single-grade classrooms, children in primary school classrooms typically interact within same-age peer groups (Mulyran-Kyne, 2005). However, some schools combine different grades within one group, so called multigrade or multi-age classrooms where children interact within mixed-age peer groups (Mulryan-Kyne, 2007; Veenman, 1995). Multigrade classrooms are common in the Netherlands, and are usually formed for administrative reasons when schools deal with low enrollment and/or uneven classroom sizes. A relatively small group of Montessori and Jenaplan schools deliberately combine grades or age groups for pedagogical purposes (Lillard & Else-Quest, 2006).

Most research on the effects of multigrade classrooms and multi-age classrooms (for reviews: Mulryan-Kyne, 2007; Veenman, 1995, 1996) found no significant differences between regular single-grade and multigrade or multi-age classrooms in terms of students' school performance. With regard to non-cognitive outcomes, however, students in multigrade and multi-age classrooms performed slightly better compared to students in single-grades on social adaptation to peers and school, and personal feelings of belonging and absence of anxiety.

Research into bullying and peer victimization has largely neglected age- or grade-mixing as a topic of study (Ellis et al., 2012) or did not describe their effects in detail. This is surprising because age or grade differences are a natural source of power imbalance, which is considered as a key feature of bullying (Salmivalli, 2010; Volk et al., 2014). To this end, in the second chapter of this thesis, I examine whether processes of power imbalance in peer victimization depend on (relative) age and grade differences between students in classroom.

I examine whether multigrade classrooms in comparison to single-grade classrooms are either a risk or a protective factor for peer victimization in childhood. Following a status framework (Rodkin et al., 2015), one could argue that due to a power imbalance younger children are more likely to be victimized in classrooms with larger age differences (Chaux & Castellanos, 2015), such as in multigrade classrooms. Alternatively, from an evolutionary perspective (Ellis et al., 2012), one could argue that such classrooms encourage prosocial behavior in children by providing and receiving help across age groups. This might result in lower risk of victimization for younger children by older children, particularly in multigrade classrooms that are formed for pedagogical reasons rather than administrative reasons. In the second chapter of this thesis, I examine the two competing perspectives by studying peer victimization in single-grade and multigrade classrooms.

1.2.2 Part I B: Classroom stability and peer victimization

Each year, schools undergo changes in their student population due to students who change grades normally (move one grade up), repeat a grade, skip a grade, or move houses. In addition, some students move to a different school, due to low academic achievement, behavioral problems, special learning needs, parents' or guardians' request, or other reasons (OECD, 2013). These changes greatly affect the stability in student classroom composition at school and, subsequently, children's positions in the classroom. I investigate how changes in classroom composition affect children's relationships. It is reasonable to expect that classroom composition changes have an influence on the interactions between students in the grade network because it reduces their opportunities to connect (Valente, 2012). On

the one hand, these changes may break up friendships, on the other hand, it may break up victimization relations and help reduce bullying.

Figure 1.2 provides an illustration of the well-structured change in classroom composition in pedagogical multigrade classrooms. This figure shows how third and fourth grade students transition over three school years. The students in both grades start in the same classroom in Year 1, are placed in two separate classes in Year 2, and end up in the same classroom again in Year 3. Here, third grade students first belong to the younger group (in Year 1), then to the older group (in Year 2), and are again in the younger group (in Year 3). Pedagogical multigrade schools expect that the younger children will receive help from the older children in their multigrade classroom, and provide help to younger children in turn when they are older themselves.

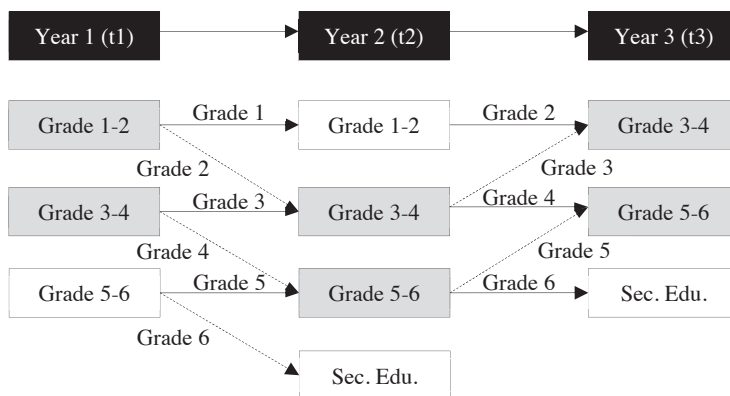


Figure 1.2 Transition of students in classes in a pedagogical multi-grade school.

Figure 1.3 provides an illustration of the less-structured change in classroom composition in a school that is unable to maintain a single grade structure for administrative reasons. This figure shows a school with both single-grade and multigrade classrooms. In this example, fourth grade students transition over three school years. Students start in the same classroom in Year 1. Their classroom is combined with the part of another fifth grade classroom in Year 2, to form a new combination classroom (5-6). In this particular case, the entire cohort of sixth graders has left the school (went on to secondary education), so that the group of fifth graders would be too small to form a separate classroom. In Year 3, the group of fourth graders in Year 1, now sixth graders, is combined again with a different group of fifth graders. At the same time, a new group of third graders joins the group of fourth graders who have been together since Year 1. In this example, the groups (referring to same classmates with the same grade) remain intact and classroom mixing occurs because classrooms are not completely filled.

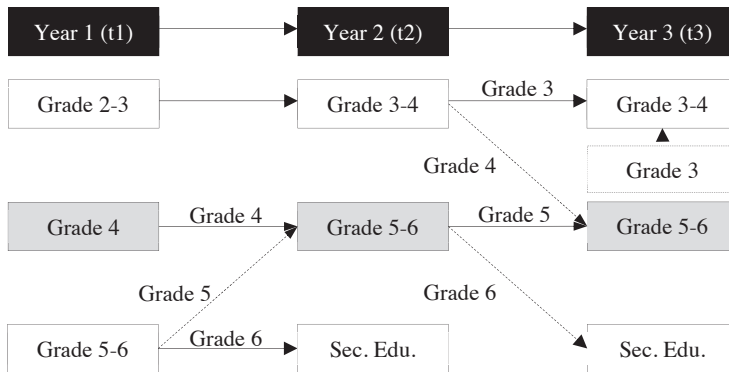


Figure 1.3 Transition of students in classes in an administrative multi-grade school.

Little is known about how changes in classroom composition affect bullying behavior and peer victimization. In an early study, it was found that the stability of bullying behavior was weaker in low-stability classrooms (Salmivalli, Lappalainen, & Lagerspetz, 1998). More recent studies found lower victimization among students who moved to a different location when transitioning to middle school compared to students who stayed in the same school (Farmer, Hamm, Leung, Lambert, & Gravelle, 2011a; Wang, Brittain, McDougall, & Vaillancourt, 2016). An explanation is that such transitions break up the dominance structures and the accompanying bullying. Bullying may also be the reason why children move to a different school. These findings suggest that stability and change in classroom composition impact negative behaviors, and possibly positive behaviors as well.

The third chapter in this thesis examines individual and dyadic effects that capture the complexity of stability and change in classroom composition and their impact on peer victimization. The expectation is that in a stable school or classroom context, children have a good sense of each other's social positions. This implies that once children have weak positions they are more likely to become a target of bullies. As this process confirms students' weak position, victimization is more likely among students who were in the same class before. In addition, newcomers in such schools are likely to start with a weaker position in the process of fitting in in the classroom and are more vulnerable targets of bullying. The individual – newcomer – and dyadic – same classroom – effects are examined in a sample of single-grade schools, where within-school classroom differences in terms of student classroom composition changes are small, and in multigrade schools, where students within the same school change classrooms more frequently.

1.2.3 Part II A: Classroom friendships and bullying/victimization

In the participant roles approach, bullying between a bully and victim takes place in the presence of peer witnesses who can assist or reinforce the bullies (Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996). Earlier studies on bullying behavior and peer victimization found that friends tend to have similar involvement in bullying behavior and peer victimization (Espelage, Green, & Wasserman, 2007; Espelage, Holt, & Henkel, 2003).

Similarity in bullying behavior may be explained by a selection effect, such that bullies select each other as friends, or by a socialization effect, referring to that bullies influence their friends to become bullies (Salmivalli & Voeten, 2004). This is illustrated in Figure 1.4 A. With longitudinal network models (Snijders et al., 2010), these effects can be distinguished. Previous studies on the dynamic relation between friendship networks and individual bullying behavior found no convincing indication that bullies select each other as friends or that bullies influence their friends in adolescence (Caravita et al., 2014; Merrin et al., 2018; Sentse et al., 2014; Sijtsema et al., 2014). Yet, these studies did not take into account that bullying is relational. The fourth chapter in this thesis investigates peer selection and influence in specific targets and specific co-bullies instead of general bullying in childhood. This is illustrated in Figure 1.4 B.

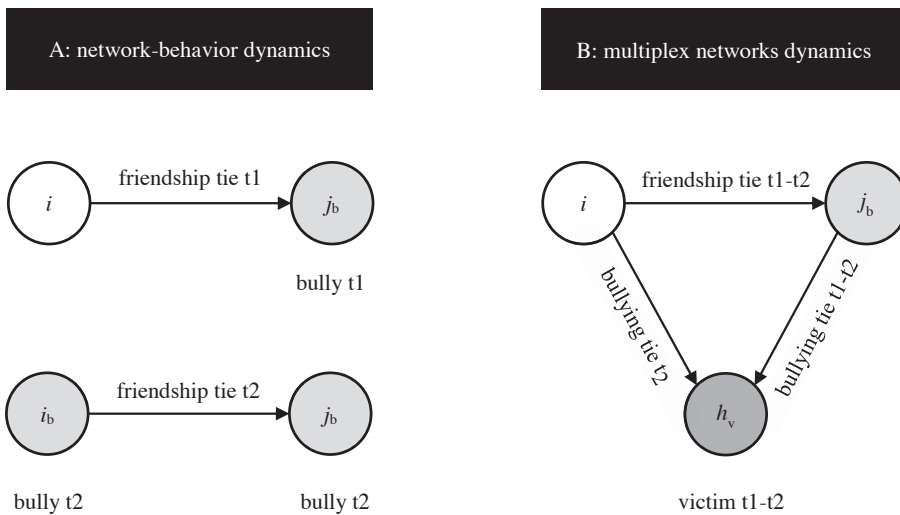


Figure 1.4 Two ways of examining influence processes using a social network approach.

Option 1: using bullying as individual behavior in conjunction with friendship (A)
 Option 2: using bullying as network relationship in conjunction with friendship (B)

1.2.4 Part II B: Classroom bullying norms and defending

The final study in this thesis (Chapter 5), focuses whether the degree of victimization in the classroom facilitates or inhibits students' inclination to defend their victimized classmates. The degree of victimization is an indication of the bullying norm in the classroom (Salmivalli, 2010).

Children who defend victimized classmates fulfill an important role in bullying situations: they can actively support the victims, by confronting the bullies or by comforting the victims. Thus, they are able to mitigate the negative consequences of victimization (Sainio et al., 2011).

Most children do not approve of bullying and would like to help the victims (Boulton, Trueman, & Flemington, 2002; Rigby & Johnson, 2006; Rigby & Slee, 1991). Defending is nevertheless relatively uncommon. On average only about 1 in 5 students in classrooms defend victims and not all victims are defended by their peers (Salmivalli, 2010). An explanation for why defending is relatively rare is that potential defenders may be discouraged to intervene because they might fear to become the next victim (Pozzoli, Gini, & Vieno, 2012; Pozzoli & Gini, 2010), particularly in a classroom context where bullying is high (Meter & Card, 2015).

Previous research showed that if bullying is high in a classroom context, bullies are less rejected and more accepted by peers, whereas non-bullies are less accepted and more rejected by peers which suggests that the bullies in such a classroom have a dominant position (Sentse, Scholte, Salmivalli, & Voeten, 2007). Thus, students (bullies, victims, and non-victims) may perceive bullying as the classroom norm. Recent research also demonstrated that in pro-bullying classrooms children defend less (Peets, Pöyhönen, Juvonen, & Salmivalli, 2015), whereas in pro-victim classrooms children defend more (Yun & Graham, 2018).

Motivations for defending may not only be guided by individual factors in combination with the bullying norm (Meter & Card, 2015) but may also be shaped by interpersonal factors (Thornberg et al., 2012), such as considering others as a friend or (dis)liking a victim (Meter & Card, 2015). Recent research using a multiplex social network approach in a small sample of seven third-grade classrooms, found that children defended the classmates whom they befriended but not whom they disliked (Oldenburg et al., 2018). This suggests that children are selective in choosing the victims they defend, and are willing to accept the accompanied risks for someone they are socially invested in.

In Chapter 5, I addressed the following three main questions: (1) What is the relation between (dis)liking and defending? (2) Does the classroom bullying norm facilitate or inhibit students'

defending of victims? (3) Does the classroom bullying norm affect the relation between (dis)liking and defending? I answer these three questions using two analytical approaches, an individual and a social network approach. The individual approach (multilevel analysis) is widely used in studies on defending (e.g., Peets et al., 2015; Pozzoli et al., 2012; Pöyhönen, Juvonen, & Salmivalli, 2012; Pronk, Olthof, Goossens, & Krabbendam, 2019; van der Ploeg, Kretschmer, Salmivalli, & Veenstra, 2017; Yun & Graham, 2018) because it accounts for part of the nested structure of the data (individual students in classrooms). Unfortunately, an individual approach ignores the dependence due to the relational nature of defending (referring to *who defends whom*). This individual approach provides general information about students' defending behavior in classrooms (student i defends, irrespective of whom he or she defends), and its relation with liking and disliking by classmates (by victims and non-victims). A social network approach enables the full use of the available information. Thus, by using this approach I am able to examine (1a) the co-occurrence of defending and direct (dis)liking relations (see Fig. 1.5 A), (1b) the co-occurrence of defending and shared (dis)liking relations (see Fig. 1.5 B), and (2) the effect of the bully norm in the classroom.

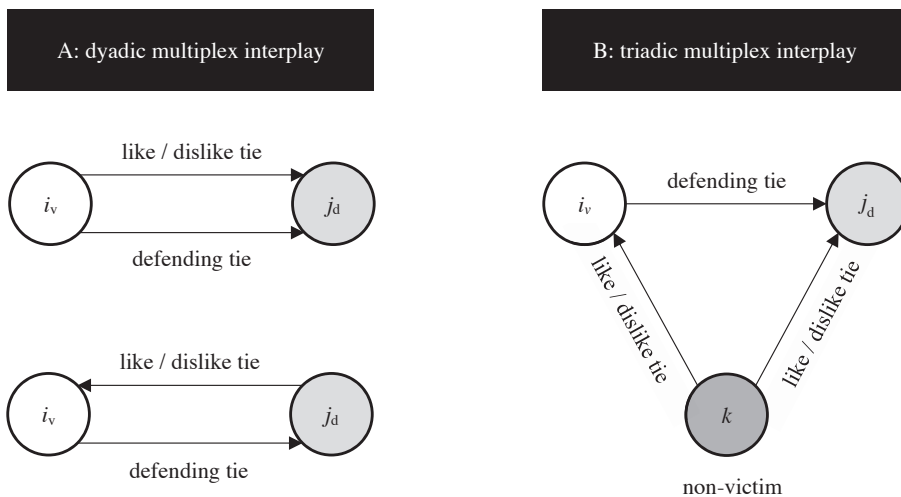


Figure 1.5 Illustration of the main hypothesized effects using a social network approach.

Left: direct effects of co-occurrence of liking/disliking with defending (A)

Right: indirect effects of co-occurrence of liking/disliking with defending (B)

After the four chapters there is a chapter with conclusion and discussion, in which the answers to the research questions posed in Figure 1.6 are given.

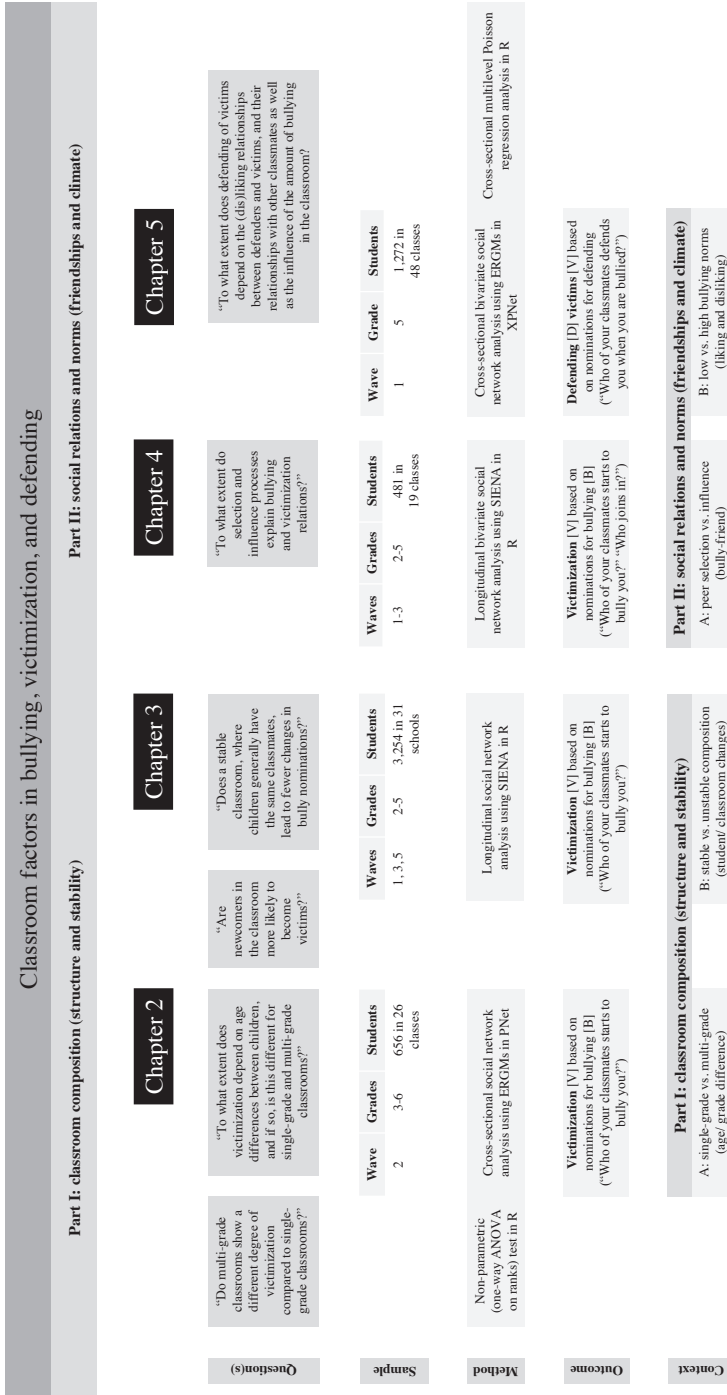


Figure 1.6 Overview of the four empirical chapters in this thesis.

