Classroom Climate and Its Impact on Students' Outcomes in Maros Regency Junior High Schools in Indonesia

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ABSTRACT

This study about classroom climate in the context of Maros, Indonesia aimed to examine the relationship between classroom climate and prosocial behaviour, learning engagement, and academic achievement and to explore teaching practices in Maros Regency junior high schools that influence classroom climate. Rural and urban junior high school students and their teachers participated in the study. A further aim of research was to develop a model to depict influences on classroom climate and its impact on prosocial behaviour, learning engagement, and academic achievement.

The ClassMaps Survey (CMS), a researcher-designed Teacher Rating Form (TRF), and interviews were used to gather the data. Seven hundred and four junior high school students participated in the survey and 24 class-teachers from 12 junior high schools completed a Teacher Rating Form and participated in individual semi structured interviews. The questionnaire (CMS) and Teacher-Rating Form data were analysed quantitatively using SPSS version 20 and Hierarchical Linear Modelling version 7 (HLM7). The data collected from teacher interviews were analysed using NVivo version 10. Additional analysis was undertaken of the two highest and lowest classes based on their classroom climate scores to explore students' classroom climate and teachers' teaching practices in greater depth.

To determine the relevance of classroom climate constructs in the Indonesian context, the ClassMaps Survey (CMS) was subject to statistical analyses. Principal Components Factor Analysis (with Promax rotation) supported the 8-component structure of the CMS questionnaire. The internal reliability of each subscale was also measured and produced acceptable to strong Cronbach's alphas ranging between .60 and .85 indicating that the ClassMaps Survey was an appropriate measurement to examine students' classroom climate in an Indonesian context.

The HLM analyses indicated that students' perceptions of their classroom climate were significantly and positively associated with their academic achievement and prosocial behaviour but no significant direct effects on learning engagement were found. Importantly, student-teacher relationships were related to all three outcomes. Other variables that

contributed to the three outcomes were also identified. In relation to students' academic achievement variables included learning engagement, year level, streamed classes, the ratio of females to males in the classroom, teachers' teaching experiences, and prosocial behaviour. With regard to learning engagement, the contributing variables were student-peer relationships, academic achievement, prosocial behaviour, year level, and the ratio of females to males in the classroom. The variables that influenced prosocial behaviour were gender, academic achievement, learning engagement, and student-peer relationships.

Qualitative analysis revealed that two main teaching practices influenced classroom climate namely student-teacher relationships and behaviour management. Five further domains indicative of teaching practices that contributed to a positive classroom climate were positive school-home relationships, teachers' teaching pedagogies, and positive teacher assumptions about student intelligence and capabilities, peer friendships, and behavioural self-control. The implication of these qualitative and quantitative findings for both theory and practice are discussed.

DECLARATIONS

Candidate's declaration

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text.

Rosmawati Abdul Maing

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CHAPTER ONE: INTRODUCTION TO THE STUDY

1.1 Background of the Study

This is a study of classroom climate in the context of junior high schools in Maros. The purpose of this study is to better understand the ways in which classroom climate, with its emphasis on students' relationships with teachers, peers, and family, influences students' prosocial behaviour, learning engagement, and academic achievement. The concept of classroom climate is usually defined with a range of elements such as friendship, trust, respect, caring, teacher relationship, social growth, and cohesiveness(Doll, Spies, Champion, et al., 2010; Doll, Spies, LeClair, Kurien, & Foley, 2010; Stuart & Rosenfeld, 1994; Tableman & Herron, 2004).

There is evidence to show that classroom climate strongly influences student prosocial behaviour, classroom engagement and academic achievement in western countries (Clement, 2010; Jennings & Greenberg, 2009; Reyes, Brackett, Rivers, White, & Salovey, 2012; Wilson, Pianta, & Stuhlman, 2007). Relationships, as an element of classroom climate, have been recognised by literature as an essential domain in fostering behaviour, classroom engagement, and academic achievement (Goodenow, 1993; Marzano & Marzano, 2003). The other elements of classroom climate will be discussed in the literature review. It is my intention to investigate evidence of these three outcomes (prosocial behaviour, learning engagement, and academic achievement) in Maros junior high schools.

The introductory parts of this chapter will cover the following sections; first, the background to the study is presented followed by the context of the study and issues around teaching and learning. Then, the literature, the aims of the study, research questions, the significance of the study, and research issues are outlined. Finally, the theoretical framework of this thesis is presented and explained.

1.2 An Overview of Classroom Climate

The word climate refers to atmosphere, feeling, mood, sense, situation, surroundings, and conditions. When talking about classroom climate, we might briefly say that it is the atmosphere of a classroom which influences the feeling or mood of students who are in the classroom. The atmosphere itself is thought to be influenced by the characteristics that exist in the classroom that involve students and teachers (Trickett & Moos, 1973).

Many studies have been conducted to recognise social, behavioural and psychological characteristics in the classroom that promote students' success (Doll, Spies, LeClair, et al., 2010; Porter, 2000; Sink & Spencer, 2005). Thus classroom climate is considered as a perception of the socio-emotional functioning of a class group. This perception is recognised by Doll, Spies, LeClair, et al. (2010) as being shaped by relationships (peer, teacher-student and home-school), student self-efficacy, behavioural self-control, self-determined learning, and patterns of social interaction, including the presence of peer conflict.

In the research, the terms 'classroom climates' and 'classroom environment' are often used interchangeably (Fraser & Fisher, 1986; Raviv, Raviv, & Reisel, 1990). Classroom environment and classroom climate are two different terms but they refer to the same thing. Classroom climate emerges from classroom environmental factors. Thus some researchers measured classroom climate using a classroom environment measurement (Hearn & Moos, 1978; Raviv et al., 1990).

Some experts in the classroom climate area designed instruments to measure students' perceptions of their classroom climate. For example, Doll and Siemers (2004) and Doll, Spies, LeClair, et al. (2010) developed the ClassMaps Survey to assess students' perceptions of classroom learning environment; Moos and Trickett (1974) developed the Classroom Environment Scale or CES to measure classroom climate or environment; and Aldridge, Fraser and Huang (1999) developed What Is Happening In This Class (WIHIC) to measure classroom environment. My study is using the ClassMaps Survey to assess students' perceptions of their classroom climate. The reasons for using this questionnaire will be discussed in Chapter Three.

1.3 Studies on Classroom Climate in Indonesia

A primary goal of schools is to enhance natural supports for psychological wellness in the school environment. A strong school environment not only enhances the social emotional wellbeing of the children, but maximises children's academic success by fostering increased attendance, attention to task, work completion, and work accuracy (Doll et al., 2009, p. 213). For these reasons I decided both academic and social and emotional domains should be taken into account in classroom learning in order to promote a positive classroom climate.

Research into classroom climate in Indonesia has been carried out, and a few of the studies are well-documented. Autonomy, competence, and relatedness support are three dimensions of classroom climate. In relation to this, Maulana, Helms-Lorenz, Irnidayanti, and Van de Grift (2016) examined the relationship between the three dimensions of students' perception of Indonesian teachers' autonomy, competence, and relatedness support and students' perceived autonomous motivation in secondary schools, Grades 10-12. The results showed that teachers' autonomy, competence, and relatedness support are all related to the Indonesian students' autonomous motivation. Maulana et al. (2016) also highlighted that self-determination theory covering autonomy, competence, and relatedness support was applicable for an Indonesian context.

Previously, Maulana and Opdenakker (2014) focused their study on teacher-student relationships by comparing teachers' involvement and support versus rejection and students' academic motivation among Indonesian secondary school educations. The finding revealed that teachers' involvement is a significant predictor of autonomous motivation. The two components of teacher-student relationships (teachers' involvement versus rejection) are related to the central concept of my study. More explanation regarding this central concept is discussed in the Section Classroom Supports and Various Student Outcomes.

Mappiase (2006) investigated classroom climate in a civic education subject. The main focus of this study was to validate the instrument that he developed to measure classroom climate in civic education. He studied the democratic classroom climate in civic education and student learning engagement in North Sulawesi. The findings of his study showed the reliability of items to be used in other studies that involved

students from classrooms with similar climates. He argued that to make students' learning meaningful, it was important to create a democratic climate which allowed students to be understood and appreciated. This study also sent a message that classroom engagement was an important construct that correlated with classroom climate.

Another study conducted by Fraser (1984) compared students' perceptions of classroom environment in two developing countries: Indonesia and Thailand. In Indonesia, the study took place in Padang, the capital city of West Sumatra involving 373 students in 18 classes of Grades 8 and 9 from nine junior high schools. In Thailand, the study involved 989 students in 31 Grade 12 Physics classes, from different schools. Using the Individualised Classroom Environment Questionnaire (ICEQ), the study found significant relationships between student outcomes and classroom climate among students in both Indonesia and Thailand. The findings suggested that teaching practices can improve classroom climate and that the nature of classroom psychosocial climate is a key determinant of student outcomes.

Fraser, Aldridge and Adolphe (2010) examined classroom environments in Indonesia and Australia. They investigated associations between students' attitudes to science (giving more focus on academic motivation) and their perceptions of psychological classroom environment by using the What Is Happening In This Class (WIHIC) questionnaire. Similar to Mappiase's study, this study also focused on one discipline in looking at the climate in the classroom. Based on an extensive review of literature, Fraser et al. (2010) concluded that in order to understand educational process, measures of learning outcomes were not sufficient, classroom environment or climate needed to be assessed as well since it was an important aspect of classroom life. Also, they outlined that students' perceptions about their classroom climate can be used as an assessment to monitor and guide attempts to improve classrooms. Hence, we can see the value of understanding students' perceptions of classroom climate as crucial and students' perceptions of their classroom climate, is therefore worthy of further research.

Using a similar questionnaire to Fraser et al. (2010), Wahyudi and Treagust (2004) looked at students' perceptions of their science learning environment in South Kalimantan Province (using WIHIC), and the validity and reliability of the WIHIC

questionnaire in measuring the classroom learning environment in the Indonesian educational context. In order to measure the classroom learning environment, the WIHIC questionnaire used seven scales: Student Cohesiveness, Teacher Support, Involvement, Investigation, Task Orientation, Cooperation, and Equity. In collecting the data, this study employed a triangulation method of questionnaire, observations and semi-structured interviews with students and teachers. This suggested that in assessing classroom climate it was important to employ both quantitative and qualitative measures, and to acquire data of students' and teachers' perceptions.

Wahyudi and Treagust (2004) found students in urban schools perceived higher work cooperation but less teacher support than the suburban schools; while students in rural schools had less positive perceptions than students in urban and suburban schools. In relation to gender, females had more positive perceptions about their classroom climate than males. They also found that teachers had more favourable perceptions of their classroom climate than the students. Finally, for further research they recommended investigating students' perceptions of their classroom learning environment for different subjects and other levels of education such as upper primary and upper secondary schools.

There is a growing interest in Indonesia in understanding the intra- and interpersonal relationship dimensions of learning, but not much research has been undertaken, and there has been none as yet in Maros Regency or in the South Sulawesi Province. My study will be undertaken in South Sulawesi province. The culture in South Sulawesi is very different from other places in Indonesia.

1.4 Context

The context of this study is in Indonesia, specifically in Maros Regency. As shown in the following map, Maros Regency is located in Sulawesi Island, South Sulawesi Province (refers to Figure 1.1). Figure 1.2 is the map of Maros Regency consisting of 14 districts. The participants were from schools across 10 districts in this regency.

Figure 1.1 Map of Indonesia (Maros Regency as indicated by the arrow)
(Source: http://www.iskconid.org/visit-indonesia)

Figure 1.2 Map of Maros Regency
(Source: https://www.google.co.id/?gws_rd=cr&ei=zFbwV9n9GYzgvASJ1pWoCw#q=peta+kabupaten+maros)

1.4.1. Culture

Indonesia consists of five big islands, and many small islands. Each of the big islands is divided into 34 provinces; and they differ culturally. The setting of this study is in Maros Regency located in Sulawesi Island. Maros Regency is one of the 24 regencies in South Sulawesi Province Indonesia. Maros is close to Makassar, the capital of South Sulawesi. The international airport of Makassar, Hasanuddin Airport, is located in Maros. Maros borders Makassar.

Many people from other regencies are also residents in this place. The culture in Maros is a mixture of many different cultures, but the majority of the people there are Makassaris and Buginese, and they are Moslems. The number of Moslems in Maros in 2015 was 429456 (Registry Office and Population Administration, 2015). Approximately 7427 people are Christians who come from different areas such as Toraja (Toraja, one regency where most of its people are Christians, is located approximately 287 km from Maros Regency), and other provinces. Other minority groups are Hindus (145 people), Buddhists (145 people), and Khonghucuists (108 people) (Registry and Population Administration Department, 2015). The people who came from other areas and different cultures usually lived in Maros town, and places such as army stations with people of many culture. Their children study in the schools located nearby.

1.4.2. Educational Laws

This section covers Indonesian educational laws. It aims to provide a general picture of how classroom climate relates to Indonesian educational laws. In Law Number 20 Year 2003 of the National Education System of the Indonesian Republic (Government of Indonesia, 2003) education is defined as 'well planned efforts in order to create a learning environment and learning process that will enable learners to actively develop their potential in order to acquire religious spiritual strengths, self-control, personalities, intelligence, noble characters, and skills which are needed by themselves as well as by society'. This is in line with classroom climate, where a supportive classroom climate will create an environment to help students to learn effectively and develop themselves.

Law Number 19 Year 2005 about the Standards of the National Education, Chapter IV, Article 19 (Government of Indonesia, 2005) states that the learning process in

education units such as schools and institutions has to be conducted interactively, inspiringly, and it should be fun, challenging and able to motivate learners to actively participate, give them chances to develop their ideas, creativities, and autonomies based on their talent, interests, and their physical and psychological development. When the classroom climate is not positive, these aims might not be achieved. Thus, teachers are expected to promote a positive classroom climate in their teaching and learning practices.

1.5 Classroom Supports and Various Students' Outcomes

In the classroom students have different outcomes. Some students have good academic capability, but others have low capability. Despite their capability, all students in the classroom need support from their teachers. Supportive teachers will help students in their learning and create positive relationships with students which will lead to a positive classroom climate. The following story is an example of lack of a teacher's support for an incapable student.

Researcher's story

A few years ago in one junior high school, there was a student who could not read. The teachers did not realise this until a couple of months after the student started her studies. After being absent for many days, some teachers in the school were looking for her and questioning why she had been absent for many days. Then one teacher said to those teachers, "Well, I don't think she would come to school again because the last time I spoke to her and told her that it was better if she stopped coming to school unless she could read". "I said to her, 'If you can't read, it's better if you stop coming to school'. How can you follow the lessons if you are not able to read? It's not our duty to teach you how to read. That's the duty of your primary teachers." The student never came back to school.

The teacher expected the student could read before coming to the school. When the teacher found the student could not read, she said, "…if you can't read, it's better if you stop coming to school. How can you follow the lessons if you are not able to read?" This indicates an unsupportive relationship in which rejection occurred. As an element of classroom climate, two types of relationships are recognised: involvement

or rejection (Maulana and Opdenakker, 2014). Maulana and Opdenakker (2014) found that involvement is a significant predictor of both autonomous and controlled motivation. This means that it is very important to build a supportive relationship between teacher and student by involvement, and avoid an unsupportive relationship by rejection. The impact of the rejection for the student was that she probably would have felt she was not being cared for, and not respected. This was a picture of a classroom climate in which a teacher's relationship with a student was not supportive and resulted in the student leaving school. This story shows that it is essential to create a positive classroom climate and enhance positive relationships in the classroom, along with other necessary practical support to overcome deficits in her educational background, to improve her wellbeing at school and her outcomes. A research finding has highlighted that negative teacher-student relationships contributes to drop out problems (Davis & Dupper, 2004).

The literature has highlighted links between classroom climate, student behaviour, classroom engagement and academic achievement. A number of researchers have found evidence that classroom climate is a good predictor of students' academic achievement (Baek & Choi, 2002; LaRocque, 2008). A study conducted by Zullig, Huebner, and Patton (2011) investigated the correlation between classroom climate and student wellbeing. It is argued by Doll, Spies and Champion (2012) that students' school success is integrally related to their psychological wellbeing. Similarly, Clement (2010) summarised, from reviewing various international studies of student wellbeing at school, that there was strong impact of schools and classroom climate on student prosocial behaviour, academic achievement, and wellbeing.

Children who are motivated and connected to others are more likely to build positive paths of development in both social and academic domains (Pianta & Hamre 2009). Classroom climate, teacher sensitivity, and regard for student perspectives are three dimensions of emotional support in the classroom (Pianta & Hamre 2009). Emotional support in an educational environment is critical for children's school adjustment and progress (Pianta and Hamre, 2009; Kochenderfer and Ladd, 1996). Other studies regarding classroom environment and academic achievement were conducted by Doll, Spies, LeClair, et al.(2010) and Baek and Choi (2002). The findings of these studies also show a strong correlation between classroom environment and student academic outcomes.

McLaughlin and Clarke (2010) explored the part played by relationships in school by drawing on a review of 133 papers published mainly in the previous 15 years. They identified relationships between teachers and pupils and pupils' peer relationships as a key. They found that these relationships impact on academic outcomes, social support, and feelings of emotional wellbeing. This is relevant to Libbey's argument (2004) and Klem and Connell (2004) who suggested that students who feel connected to school, that they belong, and that their teachers are supportive and treat them fairly, perform better, and this contributes to student success. Some researchers linked student drop out with low peer acceptance (Birch & Ladd, 1997). Further, Doll and Hess (2001) argued that the rate of dropping out by high school students can be avoided by mutual accommodation between students and the school.

My research aims to cover the issue from a teaching and learning perspective. In order to do this, ClassMaps Survey has been used (Doll, Spies, LeClair, et al., 2010 and Doll, Spies, Champion, et al., 2010). The ClassMaps Survey was used to gain quantitative data from students about their experiences of classroom climate. The class teachers were also interviewed regarding their teaching practices that might contribute to classroom climate. The need for gathering data from both students and teachers has been recognised by researchers (Wahyudi & Treagust, 2004). Fraser et al. (2010) have recommended employing both quantitative and qualitative research methods when assessing classroom climate. This indicates that data regarding students' perception on their classroom climate collected quantitatively need more explanation by looking at teachers' perceptions gathered qualitatively. Therefore, this study used mixed methods.

1.6 The Aims and the Research Questions of the Study

This study aims to (1) examine the relationship between classroom climate and prosocial behaviour, learning engagement, and academic achievement in Maros Regency junior high school students; (2) explore the teaching practices in Maros Regency junior high schools that influence the classroom climate, and to (3) develop a model about how the classroom climate influences prosocial behaviour, learning engagement, and academic achievement.

Research Questions:

1. What is the relationship between classroom climate and prosocial behaviour, learning engagement and academic achievement? (aims 1 and 3)
2. What teaching practices are used in Maros Regency junior high schools to promote the development of a positive classroom climate? (aim 2)

1.7 The Significance of the Study

There have been some published studies carried out in Indonesia that examines the interactions and interdependencies between classroom climate, teaching practices, classroom engagement, prosocial behaviour, and academic achievement, and mostly the studies were conducted in the west part of Indonesia. This study will therefore enrich the research literature in the east part of Indonesia and Indonesian context in general.

Indonesia is a rapidly developing country in the Asia Pacific region with a population of approximately 237.6 million people (Central Agency Statistic of Indonesia, 2010) with its own unique history and culture. The history and culture of Indonesia and its educational system is different from that of Western industrialised countries such as the United States of America and Australia. Therefore, it is likely there may be significant differences in the interactions and interdependencies between classroom climate, teaching practices, learning engagement, prosocial behaviour, and academic achievement in Maros Regency junior high schools compared to findings in Western countries.

Since academic achievement, prosocial behaviour and classroom engagement are priority areas for the Indonesian Government (Government of Indonesia, 2003, 2005), it is critical to explore how teaching practices influence a classroom climate and how these in turn, influence student achievement and behaviour, within Indonesian schools.

1.8 Research Issues

In this research, participants were junior high school students and their class teachers. The decision to focus on early adolescents and their teachers was based on my greater familiarity and knowledge of the curriculum, teaching practices and classroom functioning at this level of schooling. There is also evidence in the research literature that early adolescence is a critical time in the social and emotional development of

students (Kuperminc, Leadbeater, & Blatt, 2001). In addition, Way, Reddy, and Rhodes (2007) suggest that middle schools play an important role in the development of adolescents since these provide a context where they learn, implicitly and explicitly about themselves and relationships with others.

1.9 The Structure of the Thesis

This thesis comprises eight chapters. This first chapter has introduced the study and includes background information, and some issues around teaching and learning. The second chapter reviews related literature. Issues related to classroom climate definitions, the elements of classroom climate, teaching practices, prosocial behaviour, and the links between classroom climate, and student behaviour, classroom engagement and academic achievement are covered in this chapter.

The third chapter deals with the research methodology and methods used for this study. This chapter includes the research design, research procedures, site and participant selection, recruitment procedures, quantitative and qualitative data collection (methods), sources of data, procedures for data analysis, quality and reliability, and ethical issues associated with the research and confidentiality. The fourth chapter presents the analysis and findings from the quantitative data. The fifth chapter presents the analysis and interpretation of the qualitative data from the interviews. The sixth chapter looks at the two highest and lowest classroom climate scoring classes in more detail to better understand teaching practices. The seventh chapter presents discussion of key findings from chapters four, five, and six. Chapter eight provides a summary of the findings, the strengths and limitations of this study, implications of the study, and recommendations for further research.

1.10 Summary of the Chapter

This chapter has covered the background of the study, the overview of classroom climate, relevant findings of classroom climate in Indonesian contexts, the context of the study, issues around teaching and learning, the study aims and research questions, the significance of the study, research issues, the researcher, and the structure of the thesis. The next chapter will overview the literature, including research findings related to classroom climate, the elements of the classroom climate, and provide the conceptual framework of the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter explores the research literature in relation to classroom climate, and its influences on student learning, behaviour and performance. It seeks to summarise what is currently known about these topics. This chapter begins by presenting definitions of classroom climate and several main studies in this field. Next, it covers the elements of classroom climate derived from the literature.

2.2 Classroom Climate Research

Porter (2000) coined the term 'climate' with learning atmosphere and how students feel about themselves, their peers, the teachers and the subject matter. This is relevant to Sink's and Spencer's definition (2005) about classroom climate. They stated that classroom climate refers to how children feel about and experience the essential characteristics of the classroom environment. These classroom climate definitions emphasise how students feel, referring to emotional and psychological health. How the students experience the characteristics of the classroom refers to social aspects, for example, students' relationships with their teachers and with their classmates. In addition, Adelman and Taylor (2005) defined classroom climate as a perceived quality of the setting that emerges from the complex transaction of many immediate environmental factors such as physical, material, organizational, operational, and social variables. This definition suggests that in order to understand classroom climate, it is not sufficient to look at only one of the classroom characteristics independently, because the classroom characteristics interact with each other.

Classroom climate is a part of school climate. Cohen (2010) argued that measuring school climate is a way to recognise the essential social, emotional, and civic as well as the intellectual aspects of student learning. Way, Reddy, and Rhodes (2007) investigated students' perceptions of their school climate during the middle school years focusing on four critical components of school climate: teacher support, peer support, student autonomy in the classroom, and clarity and consistency in school rules and regulations. The results of the study showed that all the aspects of students'

perceptions of school climate decreased over the 3 years of middle school. The declines in each of the dimensions of perceived school climate were connected with decreases over time in psychological and behavioural change. The results showed direct effects between each dimension of perceived school climate and psychological or behavioural effects. This indicated that as a part of school climate, it is important to promote a positive classroom climate.

Fraser and Fisher (1986) reviewed a series of past studies that looked at classroom environment. He divided his review into three sections. In the first section he summarised studies, which had used classroom environment variables such as process criteria in the evaluation of educational innovations, programs, and curricula. The second section summarised the use of classroom environment assessments as dependent variables in studies of differences between students' and teachers' perceptions of actual and preferred environment. In the last section, he examined classroom environment scores by class sizes, teacher personalities, grade levels, school levels, school subjects, gender of teachers, and school types. The findings suggested the important role of classroom environment variables as powerful predictors of learning outcomes. These findings provided evidence that classroom climate was very important and worthy of further research.

In addition, in the USA, Fraser and Kahle (2007) examined the effects of different types of environments such as class, home, and peer environments as well as student attitudes on student outcomes. The results show the importance of extending research on classroom learning environments to include the learning environments of the home and the peer group. In relation to the characteristics mentioned (home, and peer), they matched with some of the subscales in the ClassMaps Survey (Doll, Spies, Champion, et al., 2010; Doll, Spies, LeClair, et al., 2010) in which they were called child-parent relationships, and student-peer relationships.

Researchers in the field of classroom climate examined classroom climate variables in relation to a variety of important characteristics. For example, some researchers assessed classroom climate of a particular subject or discipline, such as Doll, Spies, Champion, et al. (2010) who measured students' perceptions of classroom climate of middle school science students in the USA using the ClassMaps Survey. Similarly,

Fraser et al. (2010) examined the science classroom environment of middle school students (at the age of 14-15 years old) in two countries, Indonesia and Australia.

Also involving the science discipline of middle school students, Wolf and Fraser (2008) compared the classroom environment of inquiry and non-inquiry teaching practices, including the association between classroom environment and student attitudes and academic achievement. It was found that classroom environment and the association between achievement and learning environment was relatively smaller. Student attitudes were strongly related to each other.

Research has investigated emotional climate, as a domain of classroom climate. Research found that when teachers' and students' relationships are positive, it is more likely that students will feel positive emotions (Evans, Harvey, Buckley, & Yan, 2009; Reyes et al., 2012). These positive emotional effects significantly contributed to learning engagement and academic achievement (Evans et al., 2009; Reyes et al., 2012). Therefore, creating positive relationships in the classroom is critical to the development of a positive classroom climate.

2.3 The Elements of Classroom Climate

Before describing the elements of classroom climate, I will present research from several influential authors in the field of classroom climate including Moos and Moos (1978), Anderson and Walberg (1967), Fraser, Aldridge, and Adolphe (2010), Doll, Spies, LeClair, et al. et al. (2010), and Doll, Spies, Champion, et al. (2010). After highlighting the studies that they did, I will summarise the key elements of classroom climate. Each of the elements is reviewed, with regard to its impact on student learning and behaviour.

Moos and Moos (1978), used the CES questionnaire in their study. They hypothesised that involvement, affiliation and support positively related to average class grades, while competition and teacher control negatively related to average class grades. They conceptualised Involvement, Affiliation and Teacher Support as relationship dimensions that influenced the extent to which students and teachers supported and helped each other and the degree to which they were involved in classroom activities. The next subscales were Task Orientation and Competition, which were conceptualised as Personal or Goal orientation dimensions. The last dimensions were

System Maintenance and System Change that covered four subscales: Order and Organisation, Rule Clarity, Teacher Control and Innovation (p.266). These four subscales sought information about the structure and organisation of a class as well as about the processes and potential for change in its functioning.

Anderson and Walberg (1967) measured classroom climate and individual learning of junior and senior high school students in the USA by using two dimensions, affective and structural. Structural dimension referred to the structure or organisation of student roles within the class (such things as goal direction and democratic policy), affective dimension referring to idiosyncratic personal dispositions to act in a given way to satisfy individual personality needs (such things as satisfaction, intimacy, and friction in the class).

Fraser et al. (2010) used the questionnaire What Is Happening In This Class (WIHIC) that they had developed in 1999 to assess students' perceptions of their classroom climate. The questionnaire consisted of eight scales, each scale consisting of 10 items. The eight scales were Student Cohesiveness (students know, help, and are supportive of one another), Teacher Support (teacher helps, befriends, trusts, and is interested in students), Involvement (students have attentive interest, participate in discussion, do additional work, and enjoy the class), Autonomy or independence (students have to make their own decisions and choose their own modes of learning), Investigation (emphasis on the skills and processes of inquiry and their use in problem solving and investigation), Task Orientation (it is important to complete activities planned and to stay on the subject matter), Cooperation (students cooperate rather than compete with one another on learning tasks), and Equity (teacher treats students equally).

Doll, Spies, LeClair et al. (2010) and Doll, Spies, Champion, et al. (2010) used the ClassMaps Survey (CMS) to measure classroom climate, consisting of three dimensions. The first was Classroom Relatedness, covering three subscales, namely Teacher-Student Relationships, Peer Relationships, and Home School Relationships. The second was Perceived Competence involving an Academic Self-Efficacy subscale. The third, Classroom Support for Autonomy covered two subscales, Self-Determination and Behavioural Self-Control.

These classroom climate instruments as above showed that some of the dimensions that they covered were similar, for example, relationship dimensions (social), and

affective (emotional) dimensions. In the following explanation, I present the elements of classroom climate following Doll's et al. (2010) classroom climate dimensions (CMS) covering teacher-student relationships, student-peer relationships, and child-parent relationships (interpersonal relationships), self-efficacy, self-determination and behavioural self-control. These elements are discussed because they are considered to contribute to a supportive classroom climate, which influences students' outcomes.

2.4 Teacher-Student Relationships

This section will highlight research evidence that suggests interpersonal relationships in classrooms strongly influence academic outcomes. In learning and teaching practices, relationships occur between teachers and students and between students and their peers. Research provides evidence of the importance of students' relationships to their successful school experience (Cullen & Monroe, 2010; Libbey, 2004; Marshall, 2004; Mathieson & Banerjee, 2010; McGrath & Noble, 2010; McLaughlin & Clarke, 2010; Murray-Harvey, 2010). Students who have positive relationships and interactions with others tend to be more successful at school and in their future life (Hoffman, 2009; Osterman, 2000). Since student-teacher relationships cover both short and long term goals for students, it deserves more attention.

A large number of studies have investigated how teacher-student relationships contribute to school outcomes (e.g., Baker, 2006; Bergin & Bergin, 2009; Decker, Dona, & Christenson, 2007; Barry J Fraser & Walberg, 2005). Decker, et al. (2007) conducted an exploratory study to examine the associations between student-teacher relationships and outcomes for African American students who were behaviourally at-risk. They found that as teacher reports of student and teacher relationship quality increased, there was also evidence of increases in positive social, behavioural and engagement outcomes for students. As student reports of student-teacher relationship quality increased, there was also evidence of increases in positive behavioural, engagement, and academic outcomes for students (Decker et al., 2007). Martin and Dowson (2009) reviewed the role of interpersonal relationships in students' academic motivation, engagement, and achievement. They indicated the importance of interpersonal relationships for students. The study demonstrated how interpersonal relationships influence motivation, engagement, and academic achievement. To sum

up, a positive student-teacher relationship not only improves learning engagement and achievement but also behaviour.

In terms of teacher-student interactions, Pianta and Hamre (2009) argued that the quality of teacher and student interaction is determined by three main factors: emotional support (positive climate, teacher sensitivity and regard with student perspectives), classroom organisation (behaviour management, productivity and instructional learning formats), and instructional support (procedures and skills, content understanding, analysis and problem solving, and quality of feedback). With regard to emotional support, care is an example. Wentzel (1997) has identified teachers' relationships with their students showing care. She created categories to measure students' responses to teachers who care and do not care, for example: (a) Teachers who care about teaching make a special effort, and they make class interesting. (b) The acts of communication itself for example, talking to the student, paying attention, asking questions and listening. (c) Giving equitable treatment and respect for example, demonstrating trust and being truthful. (d) The expectations based on individuality including seeing the student as a person, recognition of a student's individuality, and concern with a student's non-academic functioning. For example, asking what is wrong, talking to me about my problems and acting as a friend. (e) The recognition of the student as having unique academic skills, and problems, for example, asking if the student needs help and taking time to make sure he or she understands. (f) The focus is on teachers' informal and formal evaluations of student work, for example, checking work, telling the student when he or she does a good job and praising the student.

Some studies have looked at the emotional support domain in the classroom. Hamre and Pianta (2005) examined the role of instructional and emotional support of teachers in relation to students' behaviour, attention, academic, and social problems. They focused on at-risk kindergarten children with ages between 5 and 6. In their study, they grouped the at risk children into two groups. One group of the at-risk children was placed in a first grade classroom providing strong instructional and emotional support. The other group was placed in a classroom with less instructional and emotional support. The results provided evidence that at-risk children whose classroom received strong instructional and emotional support had better academic achievement and

student-teacher relationships than the at-risk children where their classroom did not offer high instructional and emotional support. This implies that both instructional and emotional supports are required to increase students' outcomes.

Luckner and Pianta (2011) examined teacher-student relationships in fifth grade classrooms focusing on emotional support, classroom management, and instructional support, and its relation to students' peer behaviour. Their findings indicated that students in the fifth grade classrooms with a higher quality of classroom management had more positive observed interactions with their peers and lower teacher ratings of aggression and relational aggression. In relation to emotional support, it has been suggested that schools or classrooms should be free from intimidation, humiliation, and embarrassment (Laursen, 2003).

Farmer, Lines, and Hamm (2011) viewed teachers' roles as the invisible hand in the relevance of students' peer experience. According to them, teachers' roles in the classroom include that teachers can set the classroom climate, they have capacity to foster positive peer relationships and they can promote a sense that adults are in charge but the students are responsible for building and sustaining their positive peer relationships. This is a similar finding to the study conducted by Bierman (2011) focusing on the roles of teachers in the classroom and linking them to students' outcomes such as aggressive behaviour, and prosocial behaviour. He reached similar conclusions to the study conducted by Farmer et al. (2011) that teachers were able to foster and influence supportive peer relationships. For example, when children are placed in classrooms that contain many aggressive students, they tended to become more aggressive themselves over time. This suggests that teachers should consider gender balance in a classroom.

Rogers and Renard (1999) created a relationship-centred framework that focused on meeting students' emotional needs to ensure that students wanted to learn. They argued that building positive feelings as a motivational approach was needed to foster a classroom context that permitted students to value the learning activities so that they wanted to learn. Their relationship-centred framework proposed six standards: safe, valuable, successful, involving, caring, and enabling. The first standard was 'Safe'. The researchers claimed that students had to feel safe from danger, fear, humiliation, and the like. The second standard was 'Valuable'. According to the researchers,

students were able to engage well and create good quality of work pieces if they recognised that their work was valuable. The third standard was 'Successful'. This explained that students needed evidence of success in achieving their learning goals so that they could retain their intrinsic motivation. The fourth standard was 'Involving'. According to the researchers, students would engage in the classroom activities when they thought that learning activities were meaningful for them. The fifth standard was 'Caring'. This explained that students would respond positively to being liked, to being accepted and respected. The sixth standard was 'Enabling'. According to the researchers teachers needed to create a motivating context that enabled students to learn, for example by using teaching techniques that permitted students to move around the classroom, and address multiple modes of learning. The research results thus indicated that a positive teacher-student relationship will facilitate the fulfilment of students' basic emotional needs.

Emotional support includes feelings of trust and love (Malecki & Demaray, 2003). Many studies have been conducted with regard to emotional support. Yeung and Leadbeater (2010) conducted a longitudinal study that investigated peer victimization and emotional and behavioural problems among 580 Canadian adolescents between the ages at 12 and 21 at three school levels: middle school, high school and a university. They found evidence that higher levels of teacher emotional support were correlated with lower levels of students' emotional and behavioural problems. Patrick, Kaplan, and Ryan (2011) used teacher emotional support as a dimension of classroom climate, and took it as an indicator of a positive classroom climate.

Social support has been studied extensively in relation to students' learning and academic achievement. Teachers are recognised as a principle source of social support (Paris & Paris, 2001; Rosenfeld, Richman, & Bowen, 2000). Paris and Paris (2001) connected the social support given by teachers with student self-regulation. They argued that self-regulation is a skill that can be taught explicitly and that it emerges from experience. To do this, teachers could provide information and opportunities to students of all ages that would help them develop strategies, motivation, and become independent learners (Paris & Paris). Rosenfeld et al., (2000) also correlated teacher social support with student outcomes. Their research findings indicated that middle and high school students who perceived high supportiveness generally had better

attendance, avoided problem behaviour more often, had higher engagement, self-efficacy and gained better academic achievement.

Research shows that the teacher can promote a positive classroom climate through classroom management strategies (Pas, Cash, O'Brennan, Debnam, & Bradshaw, 2015). It has been recognised that classroom behaviour management is the foundation for effective teaching (Marzano & Marzano, 2003), and that it should emphasize safety, respect and responsibility (Scheuermann & Hall, 2012). Research on classroom management demonstrates the importance of clear expectations, consistent responses to behavioural infringement, opportunities for students to respond, checking for student understanding, using effective praise for positive behaviours and group behavioural methods (Pas et al., 2015; Scheuermann & Hall, 2012). There has been evidence that behavioural management and relationship building strategies are relevant for improving classroom climate (Pas et al., 2015; Scheuermann & Hall, 2012). In terms of teacher expectations, Vitto (2003) highlighted that teachers had to set up positive and high expectations both for academic achievement and behaviour. In doing so they had to recognise their students' strengths and interests as well as assist them to recognise their own strengths and interests, so that they would have high expectations and develop the belief that they were capable and competent.

Emmer and Stough (2001) defined classroom management as actions taken by teachers to establish order, engage students, or elicit their cooperation. In terms of cooperation, the teacher can promote cooperative work or group work approaches by planning and organising classroom activities and behaviours. Group work enables students to do cooperative learning activities that enhance classroom management (Emmer & Stough, 2001). Brieman (2011) pointed out that group work encourages cooperative learning and is an effective way to build positive peer relationships since it builds a context that supports interpersonal sharing, helping, and collaborative work.

The teacher's management of the classroom influences students' behaviour (Pas et al., 2015). Pas et al (2015) found that students in a classroom demonstrating consistent meeting of expectations tended to display very few disruptive behaviours (such as off-task conversations, verbal aggression, and bullying). Conversely, less engagement and more social disruption were displayed by students in classrooms where teacher expectations were inconsistent. They also found that in classrooms where students

consistently behaved well, teachers generally provided students with more opportunities to respond, more positive recognition for good behaviour, fewer disapproving statements, and limited the use of reactive behaviour management strategies. Their findings suggested three types of classroom behaviour: classrooms where behaviour is generally positive, classrooms where students' behaviour is less consistent, and classrooms where students are non-compliant.

There have been studies focusing on students' social and emotional needs. For example Durlak, Weissberg, Dymnicki, Taylor, and Schellinger (2011) conducted a meta-analysis of the social and emotional learning of students from kindergarten to high school. They explored the impact of enhancing the social and emotional learning of students and found that students who receive social and emotional learning interventions showed more positive behaviour, engagement, and better achievement. A similar focus of study had been conducted by Greenberg et al. (2003) who concluded that there is a growing research base suggesting that well designed, well-implemented school based prevention and youth development programs of students' social and emotional needs can positively influence a diverse array of social, health, and academic achievement.

2.5 Student-Peer Relationships

A series of studies on the influence of peer relationships have been investigated. Wentzel, Barry, and Caldwell (2004) have shown how friends can make a difference in the lives of young adolescents at school. From an extensive study conducted in middle schools, Wentzel, et al. (2004) found that students without friends generally showed lower levels of prosocial behaviour and academic achievement and higher levels of emotional distress than did students with friends. Similarly, Furrer and Skinner (2003) revealed that positive peer relationships influenced students' engagement such as sharing interests and generating enthusiasm for learning activities. It also decreases negative emotions like anxiety and boredom.

Student-peer relationships have been identified as a prominent factor that strongly supports student's social and emotional needs. A number of studies have been conducted in this area (Cullen & Monroe, 2010; Mathieson & Banerjee, 2010; McGrath & Noble, 2010; Murray-Harvey, 2010). Kochenderfer and Ladd (1996) investigated the prevalence and forms of peer victimization in kindergarten and its

relation to children's school adjustment. They pointed out the important factor that may undermine children's feelings of safety and security at school and, therefore, disrupt their adjustment and progress, is the extent to which they are harassed by their classmates (Kochenderfer & Ladd, 1996, p. 267). Similarly, Slee (1998) pointed out bullying as a factor associated with the quality of peer relations. On the other hand, Wentzel (2003) revealed that students' perceptions that their classmates cared about them had been associated consistently with positive aspects of school adjustment. She further highlighted that perceived social and emotional support from classmates was connected with academic achievement and prosocial behaviour.

In relation to the quality of peer relationships, some researchers have identified the characteristics of high quality friendships. Berndt (2002) described the characteristics of a high quality friendship as high levels of prosocial behaviour, intimacy, and other positive characteristics, and low levels of conflicts, rivalry, and other negative characteristics. Berndt (2002) argued that the quality of friendship had a direct impact on children's social development, for example their self-esteem. It also had an indirect effect, for example children could influence their peers' attitudes and behaviours. Other research findings have provided evidence that friendship quality influences all aspects of school adjustment such as behaviour, involvement and achievement (Berndt & Keefe, 1995; Hartup, 1996)

Risi, Gerhardstein, and Kistner (2003) conducted a longitudinal study in a US elementary school involving 524 students. Risi et al. (2003) measured students' peer relationships (social preference, aggression, and withdrawal) to predict educational outcomes. They found that ethnicity and socioeconomic status (SES) predicted educational outcomes and moderated the relationship between peer acceptance and outcomes. They further explained that social preference predicted educational outcomes of Caucasian and middle SES students but not African American and low SES students.

Ryan (2001) and Chen, Chang, and He (2003) viewed the peer group as an important context for students' development during adolescence which influences their motivation and outcomes. Ryan (2001) revealed that a peer group context influenced students' enjoyment of school, and academic achievement over the school year. However, in terms of students' expectations of success, they found no relationship to

a peer group context. Chen, et al. (2003) highlighted that a peer group characterises a social context that is fostered through group interactions among members based on group norms and values. They found social adjustment including peer acceptance, leadership, teacher rated competence, and peer assessed sociability were associated with students' academic achievement. However, with respect to gender, they found no significant effects on academic achievement.

Lemlech (2010) and MacIntyre and Ireson (2002) found that students' experience in group work contributed to their emotional wellbeing and understanding of social norms. Lemlech (2010) highlighted that in group work, students' responsibilities and social skills were required. Therefore the skills in managing group behaviour were needed to create effective instructions. MacIntyre and Ireson (2002) suggested that by group work, social and emotional disadvantages of streamed classes might be avoided.

2.6 Self-Efficacy

Bandura (1997, p. 3) stated that self-efficacy refers to beliefs in one's capabilities to organise and execute the courses of action required to produce given attainments. Schunk (1985, p. 208) pointed out that self-efficacy refers to personal judgments of performance capabilities in a given domain of activity. Students enter classroom activities with various aptitudes and prior experiences, which affect their initial sense of self-efficacy for learning. The two definitions of self-efficacy are that self-efficacy is self-confidence that an individual can perform activities to achieve the targeted goals and self-confidence might emerge from the individual's previous experiences and talents.

In addition, Linnerbrink and Pintrich (2003) pointed out that self-efficacy concerns students' beliefs that they can do something like solve a math problem, read a book, or ride a bicycle. It involves some judgement by the student that he or she can or cannot do these activities. They argued that students who had positive and relatively high self-efficacy would be more likely to be engaged in the classroom in terms of behaviour, cognition, and motivation. In more detail, they explained that self-efficacy influences behavioural engagement (effort, persistence, and instrumental help-seeking), cognitive engagement (strategy use, and metacognition), and motivational engagement (interest, value, and affect), and these types of engagement influence learning and academic achievement. They further highlighted that motivational engagement was closely

related to self-efficacy. Linnerbrink and Pintrich (2003) revealed that learning and academic achievement also influenced self-efficacy. Thus, self-efficacy and academic achievement influence each other.

Some studies examined the extent to which self-beliefs and behavioural development relate to academic achievement (Baydala et al., 2009; Brown, Lent, & Larkin, 1989; Sedaghat, Abedin, Hejazi, & Hassanabadi, 2011; Valentine, DuBois, & Cooper, 2004). Baydala et al. (2009) found positive correlations between self-belief and behavioural development and academic achievement of Canadian Aboriginal students. Similarly, Brown's et al. (1989) findings indicated self-efficacy as a strong predictor of academic achievement. Valentine, et al. also discovered (2004) the positive influence of self-efficacy on academic achievement, however, the effect was small. Sedaghat, et al. (2011) who investigated the impact of self-efficacy on cognitive engagement and academic achievement of 1371 students in 19 junior high schools in Tehran found that self-efficacy predicted cognitive engagement and academic achievement.

Other studies on how self-efficacy predicted learning engagement and achievement were conducted by Greene, Miller, Crowson, Duke, and Akey (2004) and Walker, Greene and Mansell (2006). Greene et al. (2004) examined the impact of students' perceptions of classroom structures, including tasks, autonomy support and mastery and evaluation on their self-efficacy. The results provided evidence that student perceptions of classroom structures are important for their motivation which in turn influences their learning engagement and achievement. Their findings also suggested that teachers had to recognise the concerns students have in relation to different learning tasks. Walker et al. (2006) who investigated self-efficacy and motivational characteristics of students which are changeable with intervention found that self-efficacy, intrinsic motivation, and academic identification all positively contributed to cognitive engagement.

It has been argued that self-efficacy is a significant predictor of students' motivation, learning engagement and achievement (Linnenbrink & Pintrich, 2003; Zimmerman, 2000) and it influences thought patterns, actions, and emotional states (Schunk & Meece, 2005). Also, there is research evidence that low levels of children's self-efficacy contributes to depression, impacting on their academic achievement, pro-

socialness, and problem behaviours (Bandura, Pastorelli, Barbaranelli, & Caprara, 1999).

Usher and Pajares (2006) investigated the influence of Bandura's theories of self-efficacy on academic and self-regulatory beliefs on middle school students. They revealed that mastery experience, vicarious experience, social influences, and physiological state independently affected academic self-efficacy, with mastery experience being the strongest predictor. Interestingly, males' academic self-efficacy was more affected by mastery and vicarious experiences. Further study by Usher and Pajares (2008) highlighted that although mastery experience was the strongest predictor, the strength and influence of the sources differ as a function of contextual factors such as gender, ethnicity, academic ability, and academic domain.

Student's self-efficacy can be influenced by contextual factors (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Schunk & Meece, 2005; Usher & Pajares, 2008). Usher and Pajares (2008) outlined gender, ethnicity, academic ability, and academic domain as contextual factors influencing students' self-efficacy. Schunk and Meece (2005) mentioned that self-efficacy development is influenced by three main resources, namely families, schooling and peers. With regard to contextual factors of self-efficacy, Bandura et al. (2001) revealed that parental self-efficacy and aspirations positively influenced students' self-efficacy in their career choice.

2.7 Self-Determination

Self-determination describes students' capacity to deliberately manage their own learning (Doll, Spies, LeClair et al., 2010). A self-determined student decides what knowledge they want to acquire and what skills they want to master (Doll et al., 2009). Research findings have shown that students' autonomy in learning influences their outcomes and self-determined styles predict greater conceptual learning (Grolnick & Ryan, 1987).

Ryan and Deci (2006) outlined autonomy within self-determination theory, from a philosophical perspective. In their study they examined the significance of autonomy for behaviour and wellbeing by reviewing a series of studies in this field. They outlined the benefits of autonomy and autonomy support in contexts such as families, schools, work places, religious institutions, sport teams, clinics, and health care settings in

which the findings had been used to enhance human potential, reflecting behavioural, relational, and experiential outcomes. They concluded autonomy is a crucial human need. Ryan and Deci (2000) who examined factors that enhanced as well as undermined intrinsic motivation, self-regulation and well-being revealed that self-determination facilitated intrinsic motivation, social development, and wellbeing. They concluded that competence, autonomy, and relatedness enhanced self-motivation and mental health. If these failed, motivation and wellbeing would weaken.

The teacher-student relationship is perceived to influence students' autonomy and outcomes (2008; Larose, Tarabulsy, & Cyrenne, 2005). Close and Solberg (2008) revealed that students who connected with the teachers and their school indicated higher levels of autonomous motivation for attending school. This type of student appeared to have higher self-efficacy in their learning and achieved better results. Larose et al. (2005) found that students who demonstrated better social adjustment and teacher connection had better autonomous learning and academic achievement.

Researchers examined motivation based on self-determination theory (Guay, Ratelle, & Chanal, 2008; Ntoumanis, 2001). Guay, Ratelle and Chanal (2008) reviewed a number of studies which were driven by self-determination theory focusing on the links between types of motivation and students' behavioural, affective and cognitive outcomes and the roles of parents and teachers in providing autonomous supports. Their findings indicated that motivation influenced by self-determination was important for understanding how students succeed at school. Teachers and parents as learning resources played important roles in developing student motivation. Ntoumanis (2001) focused on a sequence of motivational processes including social factors, psychological factors, types of motivation, and consequences. He found that perceived competence was a major psychological predictor. Intrinsic motivation was associated with positive outcomes, while external motivation was a predictor of negative outcomes

Studies were also conducted on looking at how self-determination theory contributed to students' learning engagement (Chatzisarantis & Hagger, 2009; Jang, Reeve, & Deci, 2010). Chatzisarantis and Hagger (2009) found that students who were taught by teachers who provided autonomous supports were more highly engaged than students who were in the controlled classes. Similarly, Jang et al. (2010) discovered

that both autonomy support and structured teaching styles affected behavioural engagement, and both autonomous support and structural styles were positively correlated. Jang et al. (2010) highlighted that instructional activities involving students' interests, needs, preferences, and personal goals promotes autonomy that influences students learning engagement. They further explained that teachers' structural styles such as providing clear expectations and controlling students' learning activities with obvious directions and guidance also support students' learning engagement

The literature reveals autonomy as a fundamental domain for human beings since it relates to psychological health and motivation (Chirkov, Ryan, Kim, & Kaplan, 2003; Deci & Ryan, 2008). Chirkov et al. (2003) expressed their different views about autonomy from other researchers who viewed autonomy as an attribute of individualistic behaviour which was only relevant to Western societies. For Chirkov et al. (2003), autonomy is a need for all people regardless of whether they come from different cultural backgrounds. Deci and Ryan (2008) highlighted that the fulfilment of psychological needs for competence, autonomy, and relatedness enhances students' intrinsic motivation where interpersonal contexts facilitate their psychological needs.

Littlewood (1999) studied how to define and develop autonomy in East Asian contexts. In his study he investigated aspects of autonomy that might be the most strongly established in East Asian contexts and how to develop them in order to support student language learning. Littlewood's findings appeared to support previous studies such as Chirkov et al. (2003). His main finding was to warn against the stereotypical ideas of East Asian learners that might make teachers less thoughtful about the characteristics and needs of individual students.

Teachers need to look at their role as facilitators for independent thought and decision making, for example by engaging students in discussion which enables them to do problem solving activities and other learning techniques that promote students' autonomy (Brophy, 2004, 2010). Brophy (2004) highlighted that teachers who are more control-oriented tend to over manage their students and usually use very detailed directions, as well as offer rewards, good grades and threats. These practices do not lead students to become self-determined.

2.8 Behavioural Self-Control

The term self-control is usually discussed from both philosophical and psychological perspectives. From a psychological perspective, self-regulation was developed as a variety of self-control conceptualisation, and therefore, some researchers used these terms synonymously (Horstkötter, 2014). Baumeister, Vohs, and Tice (2007) defined self-control as a central function of the self and a fundamental key to success in humans' lives. They outlined the importance of understanding self-control since it has potential implications for human behaviour. For example, positive self-control is associated with good adjustment and secure attachment. On the other hand, poor self-control is associated with psychological complaints and increased vulnerability.

Behavioural self-control is comprised of features internal to students, such as their desire to please and expectations of success, as well as ecological factors within students' environments such as classroom routines and procedures (Doll et al., 2009). Doll et al. (2009) argued that academic achievement and behavioural self-control are highly interdependent. The importance of behavioural self-control has been investigated in research. Barriaga et al. (2002) studied relationships between problem behaviours and academic achievement in adolescents. It is assumed that behaviours are influenced by intention, and intentions are the indications of motivation that influence behaviours (Ajzen, 1991). Ajzen (1991) highlighted three factors that influence intentions: attitude toward the behaviour, social factors, and perceived behavioural control.

A series of studies regarding the role of self-control have been conducted (Finkenauer, Engels, & Baumeister, 2005; Unnever & Cornell, 2003; Wills, Walker, Mendoza, & Ainette, 2006). Finkenauer, et al. (2005) examined the role of self-control in teen behaviour problems from a philosophical perspective. They associated parenting style with young adolescent behavioural and emotional problems where parents had not fostered self-control. The findings indicated that low levels of self-control of male and female teens were associated with high levels of misbehaviour. Poor self-control is a risk factor for behavioural and emotional problems in both genders. They also highlighted that teenagers who perceived their parents as providing support had fewer problems. Similarly, Wills, et al. (2006) examined the association between behavioural and emotional self-control with adolescent substance use such as tobacco, alcohol, and

marijuana which involved middle school students. They found that both poor behavioural and low emotional self-control were associated with adolescent substance use. Poor behavioural control had a direct effect on peer relationships and poor emotional self-control had a direct effect on substance use. Unnever and Cornell (2003), who studied the influence of low self-control and Attention-Deficit Hyperactivity Disorder (ADHD) on bullying and bully victimization of junior high school students, revealed that low self-control and ADHD were potential risk factors contributing to bullying.

In relation to self-regulation, Nicol and Macfarlane-Dick (2006) studied formative assessment and self-regulated learning. Their findings identified seven principles of supportive feedback practice that supported and developed student self-regulation including clarifying what good performance is, facilitating self-assessment, delivering high quality feedback information, encouraging teacher and peer dialogue, encouraging positive motivation and self-esteem, providing opportunities to close the gap, and using feedback to improve teaching. Some researchers also considered the way parents played a role in building children's self-control. Wright and Beaver (2005) investigated the effects of parenting on self-control levels in kindergarten and first grade children. Their general finding revealed that parenting practices appeared to have small effect on children's self-control in the early years of kindergarten and school. This finding was in contrast to many previous studies which focused on looking at parenting effects on self-control especially in relation to criminology.

2.9 Child-Parent Relationships

Child-parent relationships are relationships, which do not occur in the classroom. However, these relationships influence classroom climate. Doll et al. (2010) included this type of relationships as a subscale in their CMS questionnaire. Therefore, I consider that it is important to include it in this section as well.

Children's early relationship history with parents, caregivers, and other family members positively affects their peer and teacher relations (Kesner, 2000; Schwartz, Dodge, Pettit, & Bates, 2000). Children with histories of secure attachment tended to become friends with one another, they related better to teachers, were rated by teachers as the most competent, and were considered well suited to activities that went on in a school setting (Bergin & Bergin, 2009; Coleman, 2003).

Researchers have identified the child-parent relationship as a predictor of child behaviours, peer relationships, academic achievement, and classroom adjustment (Moss & St-Laurent, 2001; Spera, 2005). Pianta (1999) and Kesner (2000) revealed that qualities of the mother-child relationship also affect the quality of the relationship that a child forms with a teacher. This implies that understanding child-parent relationships is very important in studying a student's relationship with his or her teacher. Moreover, culture also influences child-parent relationships including how the parents supported their children (Chiu and Chow, 2010).

Some studies have investigated how parent, teacher, and peer relationships became sources of support and how these correlate to motivation at school (Malecki & Demaray, 2003; Wentzel, 1998). Evidence was found that teacher, parent and peer support are positive predictors for prosocial behaviour, engagement, and academic achievement (Malecki & Demaray, 2003; Wentzel, 1998). Gonzales-DeHass, Willems and Holbein (2005) investigated how parent involvement is related to students' motivation. Their study involved students from elementary school to high schools. They found a strong relationship between parental involvement and motivational domains such as school engagement, intrinsic/extrinsic motivation, perceived competence, perceived control, self-regulation, mastery goal orientation, and motivation to read.

With regard to child-parent relationships, research also focussed on how children's behaviours were affected by family contexts (Carrell & Hoekstra, 2010; Holt, Buckley, & Whelan, 2008), Carrell and Hoekstra (2010) studied how children exposed to domestic violence influenced other children. They revealed that children from troubled families significantly affected their peers' achievement in reading and math test scores. They also increased classroom misbehaviour. Holt et al. (2008) highlighted that children and young adolescents experiencing domestic violence were at risk of undergoing emotional, physical and sexual abuse. Thus, Holt et al. (2008) suggested that appropriate practical responses to children's needs need to develop.

2.10 Learning Engagement

Wubbels and Brekelmans (2005) summarized that some of the most important factors linking students' perceptions of teacher-student relationships and student outcomes are students' learning activities and engagement. Research has indicated that learning

activities and teaching and learning methods are strongly related to student engagement in the classroom and academic achievement (Sharkey, You, & Schnoebelen, 2008). This implies that teachers play a key role in engaging students since they create the learning activities. Small-group learning and cooperative learning are considered to have high potential for engaging students in meaningful learning (Good & Brophy, 2000). Similarly, Lemlech (2010) indicated small group instruction was associated with flexible and more open teaching approaches.

Some studies focused on how learning engagement variables affect students' academic achievement. For example, Singh, Granville, and Dika (2002) confirmed their hypothesis that there was significant contribution of engagement variables such motivation, attitudes and academic time on achievement in mathematics and science. Many studies have highlighted that the use of computers in teaching and learning has positively influenced student learning engagement. In terms of increasing student engagement and motivation, research evidence supported the use of technological tools such as computer or software programs. For example, Brunvand and Byrd (2011) promoted the use of Voice Thread, an interactive, multimedia slide show tool that enabled students to hold conversations around images, documents, and videos. In addition, Roschelle, Pea, Hoadley, Gordin, and Means (2001) highlighted that computer technology can be used to enhance students learning by supporting four important learning characteristics including active engagement, participation in groups, frequent interaction and feedback, and connections.

Natvig, Alberktsen and Ovarnstrom (2003) investigated whether methods of teaching and class participation were related to social support and stress via questionnaire responses from 947 Norwegian adolescents aged from 13-15. The results of their study show that group work, class discussions, and verbal activities strongly contributed to social support and reduced the experience of stress (Natvig et al., 2003). More specifically, Guthrie and Davis (2003) looked at student learning engagement with regard to reading instruction. They pointed to many factors causing reading disengagement of students in middle school including that reading instruction is often disconnected from content, making reading tedious, textbooks that were difficult to read and students being expected to respond to text with formal criticism rather than personal reactions. They further stated that middle school teachers showed an increased control and a curtailment of student freedom, as compared to elementary

school. Students were too often removed from teacher social support and they were expected to compete rather than cooperate with each other in reading.

Researchers recognised that lack of interest and engagement of students was due to their learning difficulties (Martin & Tracey, 2006). In order to cope with this problem, they further stated that it was important to understand learning difficulties rather than applying strategies to increase motivation. This indicates that before thinking of implementing motivation strategies, teachers need to understand students' learning difficulties. Kember (2000) revealed that the curriculum design and the way a course is taught, such as the nature of the assignments or learning tasks, affects the learning approach that students adopt. This indicates that teachers are the key to encouraging students to actively engage in their learning. In addition, Pintrich (2003) discussed what motivated students in classroom. He highlighted adaptive self-efficacy and competence perceptions, adaptive attribution and control beliefs, higher levels of interest and intrinsic motivation and goals.

2.11 Prosocial Behaviour

Wentzel (2003) found that students' positive classroom behaviour was correlated with students' personal goals and the extent to which their goals were valued by their teachers and peers. She argued that in order to promote students' positive goals, it was important to create a caring classroom environment in which teachers and students showed their support and approval of positive social behaviours. Wentzel (2003) summarised several broad criteria from ecological perspectives to understand a caring classroom environment. The first perspective suggested that students were competent when they were able to achieve goals that were valued by teachers and peers. This is relevant to Rogers and Renard's theories (1999) that students would be able to engage well and generate good work if they perceived that what they were doing had value. The second perspective suggested that students had to achieve their goals in acceptable ways, for example, getting good scores by studying hard, not by cheating. The last perspective suggested that goals had been accomplished in ways that set the stage for other positive outcomes for the students such as developing and maintaining a healthy self-concept or further development of social skills (e.g., positive interactions with peers.

Davidson, Gest, and Welsh (2010) conducted a longitudinal study about early transition relatedness with teachers and peers in 6th grade. Their results indicated behavioural characteristics in elementary schools that may contribute to early patterns of relatedness with teachers and peers in middle school (2010). Research has shown that parents, teachers, and peers play a critical role in promoting prosocial behaviours (Honig, 1999; Jennings & Greenberg, 2009). Jennings and Greenberg (2009) proposed a model of the prosocial classroom that highlighted the importance of teachers' social and emotional competence and wellbeing in the development and maintenance of supportive teacher-student relationships, effective classroom management, and successful implementation of a social and emotional learning program. Honig (1999) pointed out that in order to promote prosocial thinking and behaviours, parents and caregivers need specific understandings and skills to promote prosocial interactions in the classroom and harmonious family interactions at home.

Eliot, Cornell, Gregory, and Fan (2010) examined the relations between students' perceptions of support and students' willingness to seek help for bullying and threats of violence in ninth grade students in Virginia. Their results suggested that students who perceived their teachers and other school staff to be supportive were more likely to have positive attitudes toward seeking help for bullying and threats of violence. The findings suggested that efforts by school staff to provide a supportive climate were a potentially valuable strategy for engaging students in the prevention of bullying and threats of violence.

Prosocial and self-regulation skills promote both peer acceptance and classroom engagement, and peer acceptance predicts liking school and engagement (Bierman, 2011). In relation to peer relationships, the literature highlights an association between peer relationships and prosocial behaviour. Caprara, Barbaranelli, Pastorelli, Bandura, and Zimbardo (2000) revealed that prosocial behaviour such as cooperating, sharing, and consoling influenced children's developmental social relations including peer relationships. Caprara, et al. (2000) concluded that prosocial behaviour had positive effects on social domains and later academic achievement.

2.12 Theoretical Framework and Initial Model

It is argued that it is important for students to have access to strong and caring relationships and support for their students' emerging autonomy and self-regulation (Doll, Spies, LeClair et al., 2010). Based on this argument, a framework, ClassMaps Survey, was developed in order to look at student's perception of their classroom learning environment (Doll, Spies, LeClair et al., 2010 and Doll, Spies, Champion et al., 2010). This framework highlights social, psychological and behavioural characteristics. This theoretical framework will be used in my study. In conclusion, based on the ClassMaps Conceptual Framework (Doll, Spies, LeClair et al., 2010 and Doll, Spies, Champion et al., 2010) and other literature on the areas of classroom climate, as the theoretical foundation, the initial model for this research has been developed as in Figure 2.1.

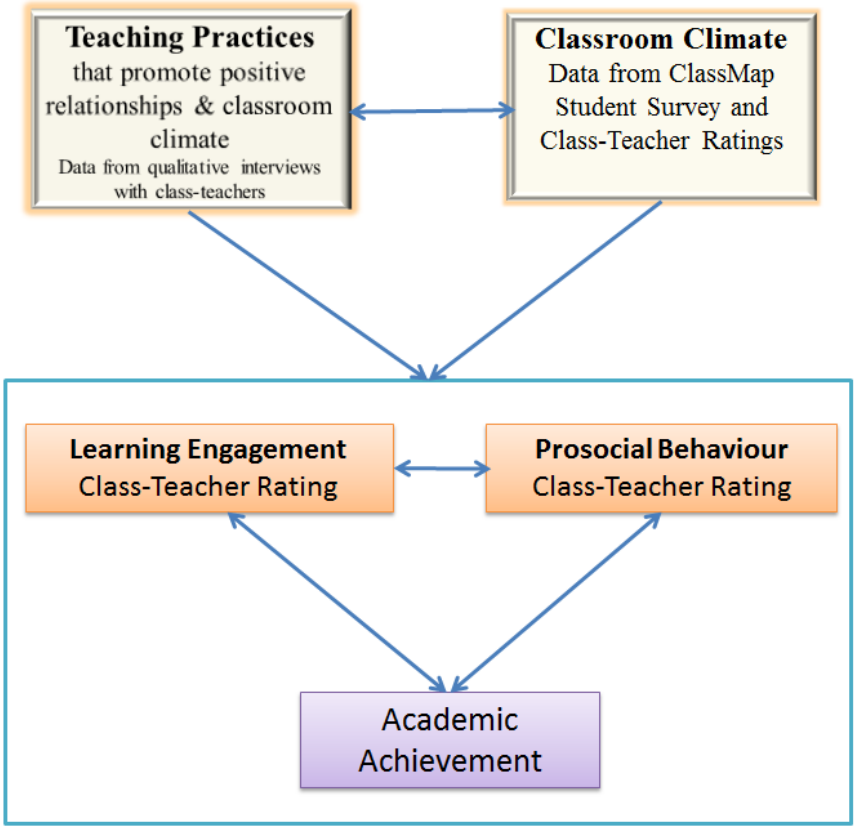

Figure 2.1 The Initial Model of this Study

2.13 Summary of the Chapter

This chapter has reviewed literature associated with classroom climate and its impact on students' learning engagement, prosocial behaviour and academic achievement. Elements of classroom climate were also reviewed, and the conceptual framework that guided the study was presented. The literature review provided understanding of the importance of exploring classroom climate in different contexts such as Indonesia. The next chapter will present the methodology and the methods employed for this study including the research design, research procedures, site and participation selection, recruitment procedures, the participants of the study, data collection, data analysis, validity and reliability, and ethical considerations

CHAPTER THREE: METHODOLOGY AND METHODS

3.1 Introduction

This chapter includes both the methodology and methods of this study. The methodology of this research covers research design while the methods of this study includes the research procedures that cover site and participant selection, data collection, data analysis, the issues of validity and reliability, and ethics approval. In terms of data collection and analysis, quantitative and qualitative data are explained separately.

3.2 Research Design

The study aimed to (1) examine the relationships between classroom climate and prosocial behaviour, learning engagement, and academic achievement in Maros Regency junior high school students, (2) explore the teaching practices in Maros Regency junior high schools that influence classroom climate, and to (3) develop a model about how the classroom climate influences prosocial behaviour, learning engagement, and academic achievement. The three research aims were formulated in two main research questions. The first research question looked at the relationships between classroom climate and prosocial behaviour, learning engagement, and academic achievement. By answering the first question, aims 1 and 3 would be answered. The second research question looked at the teaching practices that teachers used in order to answer aim 2.

To answer the research questions, a mixed methods research design was employed based on a number of theories or discussions of mixed methods studies. Creswell (2014) defined mixed methods research as an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, using a distinct design that may involve philosophical assumptions and theoretical frameworks. The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone. This is in line with the work of Curry, Nembhard,

and Bradley (2009) that mixed methods, in which quantitative and qualitative methods are combined, are increasingly recognized as valuable, because they can capitalise on the respective strengths of each approach.

Another rationale of using of mixed methods is relating to the research questions of a study. Onwuegbuzle and Leech (2006) discussed how to write mixed methods research questions, which were defined as questions that embed quantitative and qualitative research questions. They argued that in mixed methods studies, research questions drive the methods used including the type of research design used, the sample size and sampling employed, and the type of instruments administered (p. 475).

Moreover, Onwuegbuzle and Leech (2006) highlighted four rationales for employing mixed methods research: participant enrichment (for optimising the sample), instrument fidelity (for maximizing the appropriateness of the instruments used in the study), treatment integrity (for assessing the fidelity of interventions, treatments or programs), and significance enhancement (for maximising researchers' interpretations of data). In terms of the purposes of using mixed methods studies, Onwuegbuzle and Leech (2006) summarised five purposes: (a) triangulation (seeking convergence and clarification of findings from different methods that study the same phenomena), (b) complementary (seeking elaboration, enhancement, and clarification of the results from one method with results from the other methods), (c) initiation (discovering paradoxes and contradictions that lead to a re-framing of the research questions), (d) development (using the results from one method to help inform the other method), and (e) expansion (seeking to expand the breadth and range of the investigation by using different methods for different inquiry components).

Johnson, Onwuegbuzie and Turner (2007) examined a number of studies using mixed methods. They found that the authors of the studies examined, argued that mixed methods research is one of the three major research paradigms (quantitative, qualitative, and mixed methods research). Johnson et al. (2007, p.123), based on their analysis on the summarised 19 definitions of mixed methods studies, offered a general definition of mixed methods research. They defined mixed methods research as the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g. use of quantitative and

qualitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration.

Similar to Johnson et al. (2007), Sale, Lohfeld and Brasil (2002) highlighted that combining quantitative and qualitative methods research is useful for some areas of research such as education because the complexity of the phenomena requires data from a large number of perspectives. Sale et al., (2002) concluded that mixed methods are acceptable when using them for complementary purposes which means that the strengths of one method enhance the other method.

The rationale for using a mixed methods research design was based on the research questions of the current study. The first research question was best answered quantitatively, and the second research question was best answered using qualitative methods. The integration of quantitative and qualitative results was employed in order to answer the last aim of this research. Cresswell and Clark (Cresswell & Clark, 2007) highlighted the possibility of integrating quantitative and qualitative results to answer a certain research question. More specifically, this study uses a convergent mixed method. It means that quantitative and qualitative data are collected and analysed separately and the two sets of databases compared to best understand a research problem.

3.3 The Research Procedure

Firstly, the data were gathered by questionnaire to examine classroom climate in junior high school students in Maros Regency. Then, data were gathered by interviews with the class teachers to explore the teaching practices in Maros Regency junior high schools that influence classroom climate. The next stage involved quantitative data analysis. The data from the questionnaire were analysed quantitatively using SPSS version 20 and Hierarchical Linear Modelling version 7 (HLM7) to answer the first research question. The qualitative data were analysed using NVivo version 10. Figure 3.1 displays the stages of the research procedure for this study. In this figure, I placed research questions on the top since they drove the research methods (Teddlie & Tashakkori, 2009, p. 23), for example, whether the questions should be answered quantitatively or qualitatively. The results of the quantitative and qualitative data analysis were integrated to build understanding about classroom climate in Maros Regency, Indonesia, and to answer the last research aim.

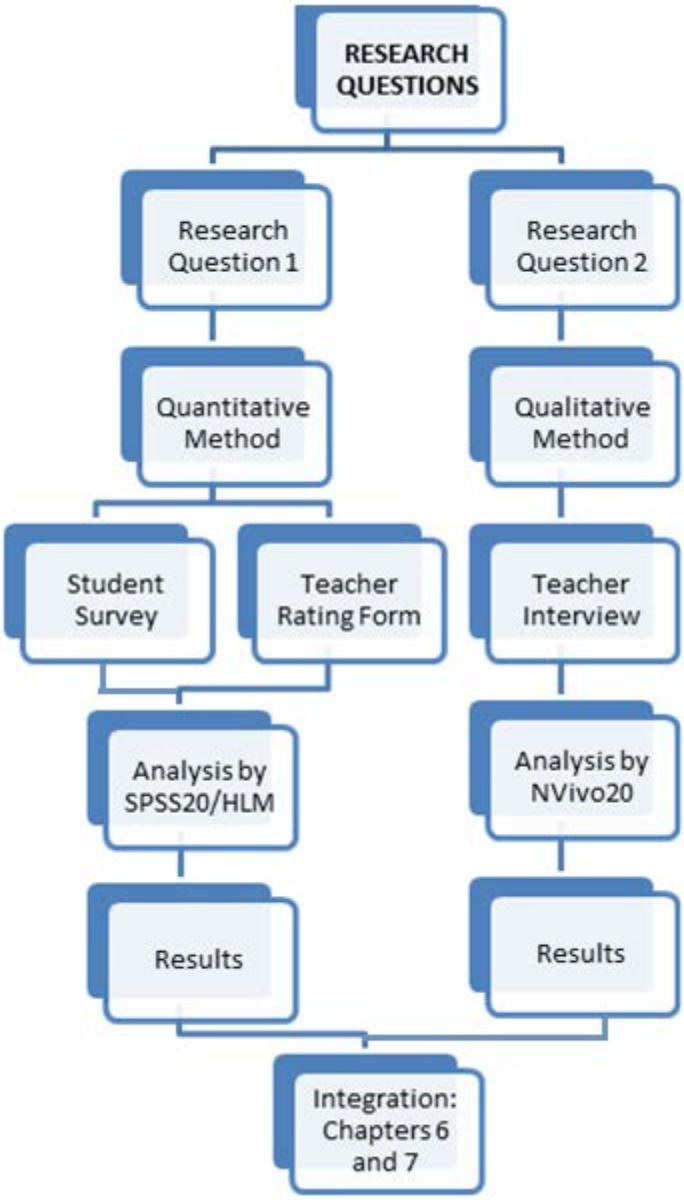

Figure 3.1 Stages of Research Procedure Developed for this Study

3.4 Site and Participant Selection

This study involved junior high school students in Maros Regency. I focused my research site in Maros Regency because I was born, and live and teach in Maros Regency, thus, I want to know about students' perceptions of their classroom climate in this regency. As a new researcher, I wanted to start my research in my area before studying other areas since I am familiar with this area, and can more readily access schools in this area.

The reasons for choosing junior high schools (not elementary or senior high schools) were firstly, as a junior high school teacher, being familiar with this school level, and

supported by the literature, I was aware that students in junior high schools are in transition from elementary to secondary schools, and this transition is a potential source of stress related to bullying, motivation, and changes in specific self-perceptions and general self-esteem (Anderman & Maehr, 1994; Craig & Pepler, 1998; Eccles, Wigfield, Harold, & Blumenfeld, 1993; Weare & Gray, 2003; Wigfield, Eccles, Mac Iver, Reuman, & Midgley, 1991). Children in this stage of schooling need support from people around them through, for example, positive relationships with their teachers, peers, and parents. These were three of the main subscales of classroom climate. Secondly, most classroom research was conducted on either primary or upper secondary schools, while less research has focused on the junior high schools (Maulana, Opdenakker and den Brok, 2015). Thus, junior high school students were recruited as the research sample.

According to the Central Statistics Agency of Maros (2012), in 2010 there were 10,994 students attending 33 public schools in Maros Regency. Although, this data was gathered in 2010, I consider that this number is approximately the same in 2013. Bartlett, Kotrlik and Higgins (2001) provided a table for sample size for a given population size for continuous data (refer to Appendix J). Continuous data are the data that can be measured on a scale for example length, size, width, time, temperature, and cost (Villanova University, 2017). They recommend if the population is 10,000, the minimum sample size for continuous data is 209. Based on this calculation, the sample size for my research should need to be at least 209 students. 704 students for the survey were recruited.

For this study convenience sampling was used by choosing schools and teacher participants that were conveniently available for the study (Tashakkori & Teddlie, 2010). The sample (schools, teachers, and students) who were prepared to be involved in this research was recruited. The sampling procedures are described in the following sections.

3.5 Recruitment Procedures

Recruitment for this research involved gaining participation from schools, teachers, and students in rural and urban junior high schools in Maros Regency, Indonesia. There is no precise definition of rural and urban in Indonesia, however, for the purpose of this study I used an explanation provided by Bintarto (1983) that one of the elements

of a rural area related to its location. He further explained that commonly a rural area is far from a city or town or crowded centres; and it is quiet. Based on these characteristics, there were four junior high schools located in urban areas. One of them was not approached because it was different from the other schools. It was an international-based school that later changed to an acceleration school because of a law change in the educational system. Due to the small number of the urban schools, it did not enable me to recruit more schools in this category. Therefore it was necessary to recruit more rural schools in order to get a larger sample. Table 3.1 summarises the student participants' information of those involved in the survey and Table 3.2 displays the teachers who participated in the interviews.

Table 3.1.
Student Participants' Information

Number of Students	Gender	Year Levels			School Location	
		7	8	9	Rural N = 490 students	Urban N = 214 students
704	Male	94	124	106	229	95
	Female	120	166	94	261	119
	Total	214 (30.40%)	290 (41.19%)	200 (28.41%)	490 (70%)	214 (30%)

Table 3.2.
Teacher Participants' Information

Number of Teacher Participants	Teaching Subjects N = 24								Year Teaching Experience	Gender	
	Indonesian	English	Math	Social Science	Biology	Civic Education	Art	Sport		Female	Male
24	4	6	2	6	2	2	1	1	≤ 10	7	1
									11-19	9	-
									≥ 20	6	1
									Total	22	2

3.5.1 School Recruitment

Before returning to Indonesia, a permission letter was acquired to approach the schools from the Head of Education Service in Maros Regency (Appendix B). Of the 33 public junior high schools in Maros Regency, I contacted 12 schools located in 10 districts of the 14 districts, and they agreed to participate. Therefore, I involved 12 schools. The schools that were contacted earlier were those which could be reached easily, for

example the schools that were located around the town. Then schools that were located further away were contacted. The first step in recruitment was contacting the school principals to ask whether I could visit their schools on a specified date. When the school principals said that their schools could be involved, these schools were visited. For those that were hard to contact by telephone, I went to the schools without any appointment. In Indonesian culture this was still polite.

When each school was visited, the school principal was shown the introduction letter, the permission letter, and consent forms. After reading the ethical research documents, at the same time the school principal was asked if he would grant permission to approach the class teachers at the school. The school principal asked the school administrative staff to issue a permission letter to approach the class teachers at the school (not all teachers of each school become class teachers). A letter of introduction, information sheet, and consent form to the class teachers in the participating schools were distributed. The same procedure was followed at each school visited. All principals I approached agreed to some of their teachers participating.

3.5.2 Teacher Recruitment

After the school recruitment, the next step was teacher recruitment. After distributing the letter of introduction, information sheet, and consent form to the class teachers in the participating schools, some of the class teachers returned the consent forms on the same day and some others returned it in the next day and these were collected. Most of the class teachers returned their consent form and agreed to participate. In the consent form, the teachers could see that they were expected to participate in an interview and fill out a Teacher Rating Form. Among the class teachers returning the consent forms, there were only two male teachers who were both included. Thus there were only two male teachers involved in this study. Due to the limited time for the research, only two class teachers from each school could be interviewed. Two teachers were chosen randomly, except the male teachers. After collecting the consent forms from each school, the forms were put together randomly, and then the second form from the top was selected and then second one from the bottom. This procedure was done for each school.

The class teachers who had been selected were informed that they were to be interviewed to find out about teaching practices they usually used in their classrooms,

for example, information about teaching practices that they thought were successful. The teachers were informed that they would be provided a Class Teacher Rating Form seeking information about student achievement, relationships, learning engagement, behaviour, and relationships. The class teachers were also informed that questionnaires would be distributed to their students.

3.5.3 Student Recruitment

After recruiting the class teachers, their permission to distribute the information sheet and consent form to the students in their class was obtained. The teachers took me to the class and introduced me to the students, and then I distributed the documents to the students. The students were recruited from the classes of teachers who consented to participate. The letter of introduction, information sheet, and consent forms were distributed to each student in the class. These documents were taken home to show to their parents or guardians to seek their consent for their child to participate. When the students returned the consent forms, the class teachers contacted me, and I went to the school to collect the consent forms, and asked the class teachers when it would be possible for the students to complete the questionnaire. All of the students returned their consent form, but some of them did not participate because of ill health.

It was planned that while the students in the class were filling out the questionnaire, the class teacher would fill out a Class Teacher Rating Form (refer to following section). However, it could not be done since the students' academic achievement for that semester had not been issued. The class teachers preferred doing it on another day. When students filled out the questionnaire, their class teachers were not in the classroom. I distributed the questionnaire to the students, and let them know that they could ask me for clarification if they found unclear items of the questionnaire.

3.6 Study Participants

Of the 704 participant students, 54% (380 students) were female, 46% (324 students) were male. There were 214 (30.40%) year 7 students, 290 (41.19%) year 8 students, and 200 (28.41%) year 9 students. Since the students voluntarily participated, the number of boys and girls was not equal. Some schools, mainly rural schools did not have large classes. Therefore, the number of student participants from the different schools varied as presented in Table 3.3. In terms of culture, the majority of student participants in rural schools (490 students) were from similar backgrounds for example

in terms of tribes, language, family social economy status and parental education, while those in urban schools (214 students) had more varied backgrounds.

The teacher participants voluntarily participated in filling out a Class Teacher Rating Form about their students and being interviewed. Two of the 24 teachers were male. Because the participation was voluntary, it was hard to equalise the gender of the participants, as could be done for the student participants.

Table 3.3
School Participants' Information

Schools' Code	Year Level	Number of Participants	Gender	
			Female	Male
School_1	8 and 9	64 students	32 (50%)	32 (50%)
School_2	9 and 9	36 students	16 (44.44%)	20 (55.56%)
School_3	8 and 9	61 students	35 (57.38%)	26 (42.62%)
School_4	7 and 8	64 students	35 (54.69%)	29 (45.31%)
School_5	8 and 9	56 students	25 (44.64%)	31 (55.36%)
School_6	7 and 8	75 students	41 (54.67%)	34 (45.33%)
School_7	8 and 8	75 students	43 (57.33%)	32 (42.67%)
School_8	7 and 8	66 students	37 (56.06%)	29 (43.94%)
School_9	7 and 9	59 students	25 (42.37%)	34 (57.63%)
School_10	7 and 9	49 students	20 (40.82%)	29 (59.18%)
School_11	7 and 8	46 students	20 (43.48%)	26 (56.52%)
School_12	7 and 9	53 students	30 (56.60%)	23 (43.40%)

3.7 Quantitative Data Collection

In this research, quantitative methods were used to explore the classroom climate in some public junior high schools in Maros Regency. The quantitative methods were student survey using the ClassMaps Survey (Doll, Spies, Champion, et al., 2010; Doll, Spies, LeClair, et al., 2010) and a Class Teacher Rating Form. This section provides information regarding the questionnaire, the reasons for using it, and the translation process.

3.7.1 Questionnaire

This study used the ClassMaps Survey (Doll, Spies, Champion, et al., 2010; Doll, Spies, LeClair, et al., 2010). The ClassMaps Survey (CMS) has been used recently both in elementary and middle schools (Doll, Spies, Champion, et al., 2010; Doll, Spies, LeClair, et al., 2010). The ClassMaps Survey is a 55 item survey exploring students' perceptions of classroom conditions related to academic engagement where each item looks at a characteristic of the classroom or its students (Doll et al., 2009).

Students responded using a 4-point Likert scale namely ‘Never, Sometimes, Often, Almost Always. Items containing positive attributes are coded 0 = Never, 1 = Sometimes, 2 = Often, and 3 = Almost Always. Items describing negative attributes are reverse coded, so that higher scores always represent positive judgments of the classroom (Doll, Spies, LeClair, et al., 2010). There are eight subscales in CMS. Table 3.4 provides the details of the 8 subscales.

Table 3.4.
Details of the Eight Subscales

	Aspects	Sub-scales	Number of Items
Relational aspects	Teacher-student relationships	My Teacher (MT)	7
	Peer friendships	My Classmates (MC)	6
	Peer conflict	Kids In this Class (KITC)	5
	Worries about peer aggression	I Worry that (IWT)	8
	Home-school relationships	Talking With My Parents (TWP)	7
Autonomy and perceived competence	Academic self-efficacy	Believing In Me (BIM)	8
	Self-determination	Taking Charge (TC)	8
	Behavioural self-control	Following Class Rules (FCR)	6

Five subscales in CMS refer to relational aspects of the classroom, including teacher-student relationships (My Teacher, MT, 7 items), peer friendships (My Classmates, MC, 6 items), peer conflict (Kids In This Class, KITC, 5 items), worries about peer aggression (I worry That, IWT, 8 items), and home-school relationships (Talking With My Parents, TWP, 7 items) (Doll, Spies, LeClair, et al., 2010). Three of the subscales outline autonomy and competence characteristics namely academic self-efficacy (Believing In Me, BIM, 8 items), self-determination (Taking Charge, TC, 8 items), and behavioural self-control (Following Class Rules, FCR, 6 items) (Doll, Spies, LeClair, et al., 2010).

The 'student worries' subscale was added "at the request of an elementary school interested in monitoring bullying" (Doll, Spies, LeClair, et al., 2010). The 'student worries' subscale was not included in the original middle school version of the survey because teachers "suggested that it had limited relevance for middle school students"(Doll, Spies, LeClair, et al., 2010). My work as a teacher in Indonesian junior high schools (middle schools) has shown me with evidence that the 'student worries' subscale is relevant within this context, and so I have included it in the present study. At least two studies have provided evidence of the validity, reliability and internal consistency of these (Doll, Spies, LeClair, et al., 2010; Doll, Spies, Champion, et al.,

2010) within the USA. Further research is needed to explore the validity and reliability of these subscales for countries such as Indonesia.

3.7.2 Reasons for Using the ClassMaps Survey (CMS)

In this current study, the ClassMaps Survey (CMS) has been used to explore students' perceptions of classroom climate in Indonesia, specifically in Maros Regency. The ClassMaps Survey (Doll, Spies, LeClair, et al., 2010) was developed based on a comprehensive review of the research literature around classroom characteristics covering social, psychological and behavioural domains that promote academic success to measure students' perceptions of the classroom learning environment. The conceptual framework of the ClassMaps Survey is based on the following classroom aims (Nickolite & Doll, 2008, pp. 97-98):

- fostering students' academic efficacy,
- fostering caring and authentic relationships between teachers and their students,
- promoting appropriate and self-controlled student behaviour,
- maximising opportunities for supportive and rewarding friendship with peers,
- supporting students' self-determination, and
- Strengthening home-school communication.

The items of the ClassMaps Survey (CMS) were carefully planned. They were refined in a series of studies including clear and straightforward language that was suitable for young children (Doll, Spies, LeClair, et al., 2010). When the CMS was used for middle school students, the CMS scale had seven sub-scales with 47 items (Doll, Spies, LeClair, et al., 2010). Four subscales focused on relational aspects of the classroom including teacher-student relationships (My Teacher or MT, seven items), peer friendships (My Classmates or MC, seven items), peer conflict (Kids in This Class or KITC, five items), and home-school relationships (Talking With My Parents or TWP, seven items). Three subscales focused on self-regulatory characteristics including academic self-efficacy (Believing In Me or BIM, eight items), self –determination (Taking Charge or TC, eight items), and behavioural self-control (Following Class Rules or FCR, six items). An optional eighth sub-scale (I Worry That or IWT, eight items), describing students' worries that other students would be aggressive towards them, was created at the request of an elementary school interested in monitoring

bullying in the building. However the eighth subscale was not included when Doll, Spies, Champion, et al. (2010) conducted their study in the middle school science students.

The ClassMaps Survey (CMS) has been validated a number of times (Doll, Spies, LeClair, 2010; Doll, Spies, Champion, et al., 2010; Doll et al., 2004). The results showed that CMS had strong internal consistency (.71 to .93), suggesting that it was a promising measure that captures students' perspective of classroom environment. Therefore, I considered that CMS would be appropriate to use in different contexts like Indonesian classrooms. For my study, I included the eighth subscale (IWT) because I consider it was relevant to Indonesian school contexts where teachers sometimes found bullying in the school. Where bullying occurs, it is desirable to explore ways to ensure children feel safe and happy at school.

Believing In Me (BIM)

The subscale Believing In Me is about students' self-efficacy. The literature has shown the contribution of self-efficacy on students' learning outcomes. Thus it was considered that this subscale was very important to use in looking at students' learning self-efficacy. This subscale provided 8 items, and 2 of them are as follows:

I can be a very good student in this class.

I can do the hard work in this class.

My Teacher (MT)

The teacher is a person or an agent who plays a crucial role in a classroom and school. For example, two items of the 7 items in subscale My Teacher are:

My teacher respects me.

My teacher likes having me in this class.

These items were very important for students. Students who feel being respected by their teacher(s) will feel happy in the class, and this will increase their self-confidence. Similarly, the item 'My teacher likes having me in this class' will influence students' motivation and learning engagement in the classroom.

Taking Charge (TC)

The subscale Taking Charge related to students' self-determination in their learning. It is about their capability in managing or directing their own learning. For teachers or

educators, it is essential to get information about the level of their students' self-managing in their learning. As the example, two of the six items are:

I work as hard as I can in this class.

I learn because I want to and not just because the teacher tells me to.

My Classmates (MC)

In addition to teachers, peers or classmates also influence classroom climate. Students' relationships (friendships) with their classmates influence their learning motivation and their motivation to go to school. When students do not feel safe or feel uncomfortable in their classroom, they tend to avoid coming to school. Two items of the 6 items in subscale My Classmates are:

I have friends who will stick up for me if someone picks on me.

I have a lot of fun with my friends in this class.

Following Class Rules (FCR)

The subscale Following Class Rules is about students' behaviour in a classroom. For example, two items of the 6 items in subscale Following Class Rules are:

Most kids follow the rules in this class.

Most kids in this class behave well even when the teacher isn't watching.

Talking With My Parents (TWP)

The subscale Talking With My Parents is about the children's relationships with their parents. Two items of the 7 items in subscale Talking With My Parents are as follows:

My parents and I talk about ways that I can do well in school.

My parents and I talk about my homework in this class.

I Worry That (IWT)

The subscale I Worry That relates to students' feeling of being worried about peer aggression. The issue of being worried in the classroom or at school is very important to be aware of, especially by teachers or school staff, so that support can be given to the students who feel very worried about being at school. Immediate preventive actions might be provided. Two of the 8 items in the subscale I Worry That are:

I worry that other kids will try to make my friends stop liking me.

I worry that other kids will leave me out on purpose.

Kids In This Class (KITC)

The subscale Kids In this Class is about students' relationships with each other (peer conflicts). I theorised that the more conflicts occur in a classroom, the more unsupported the classroom climate is. The CMS provided 5 items in subscale Kids In This Class. Two of the items are as follows:

Kids in this class pick on or make fun of each other.

Kids in this class argue a lot with each other.

3.7.3 Translation

The questionnaire was translated into Indonesian language since the study was conducted in Indonesia and the respondents were Indonesian students. The questionnaire translation was checked by three colleagues. Before going to the field, the translated questionnaires were trialled by two Indonesian students living in Adelaide who were 13 years old (junior high school level). The translated questionnaire was piloted again in Indonesia in a school which was not involved in the data collection. Eighteen students participated in this trial. A couple of words, in item 2 of the translated questionnaire (TC= I can do as well as most kids in this class.), were revised to make it easier to understand (the original translation was: *Saya biasa mengerjakan tugas* ***sebaik anak-anak lain di kelas ini.*** This was changed to: "*Saya biasa mengerjakan tugas* ***dengan baik seperti teman-teman sekelas saya****"*. The change words are bold. After translating the questionnaire to Indonesian, it was not translated to the source language anymore.

3.7.4 Class Teacher Rating Form (TRF)

In this study, a Class Teacher Rating Form was used to gain information about student academic achievement, classroom relationships, engagement, behaviour, and relationships (student and teacher relationships, peer relationships) (for a copy of the TRF, refer to Appendix H1 and H2). This information is used in examining the association between classroom climate and student academic achievement, prosocial behaviour and learning engagement (Research Question One). In addition, students' academic achievement refers to students' Grade Point Average (GPA) from one semester completed of the current year of study.

I was aware that providing a rating form for students would be a good idea. However, in this research a student rating form was not employed. I considered that for this

research, the classroom climate questionnaire would be sufficient to look at students' perceptions of their classroom climate.

In order to link the data from the individual student questionnaire and data from the class teacher rating form, the class teachers wrote the students' names on the Class Teacher Rating Form, which were the same as on the student questionnaire. The students were informed that the information would be kept confidential. Table 3.5 below displays the variables of the Class Teacher Rating Form.

Table 3.5
Variables of the Class Teacher Rating Form

Class Teacher Rating Form variables
Academic achievement
Learning Engagement
Prosocial Behaviour
Student's Relationships with Classmates
Student's Relationships with other Teachers
My Relationships with this Student

Academic Achievement

Students' academic achievement referred to students' Grade Point Average (GPA) of their report book from the latest semester. The students' academic achievement ranges from 10 to 100. In the Student Report Book for elementary school published by the National Education Department of Indonesia in 2010, score categories are provided such as scores ranging from 100 to 86 categorised as 'very good', 85 to 71 considered as 'good', 70 to 60 put into 'credit, enough', 59 to 50 categorised as 'less or low', and the scores below 50 considered as 'fail'. However in the Student Report Book for junior high school level, the details of the score categories are not provided. The report book only provides information such as score A refers to very good, score B refers to good, score C refers to enough, score D refers to low or less, and score E refers to fail. For academic achievement, teachers in junior high schools use scores ranging between 40 and 100. For the purpose of this study, continuous data of academic achievement in the quantitative analysis were used (for example the scores are 60, 70, 80, 90).

Learning Engagement

The class teachers rated their students' learning engagement based on the following criteria: 'Often off-task, inattentive, distracted and disinterested' was coded 1; 'Frequently off-task, inattentive, and distracted' was coded 2; 'Frequently on-task and

but easily distracted' was coded 3; 'Frequently on-task and motivated to work in class' was coded 4; and 'Usually on-task and highly motivated to work in class' was coded 5.

Prosocial Behaviour

Students' prosocial behaviour was rated based on the class teachers' perception by using the following descriptors: 'Often breaks classroom rules and interacts negatively with others in class' was rated 1; 'Frequently breaks classroom rules and interacts negatively with others in class' was rated 2; 'Occasionally breaks classroom rules and interacts negatively with others in class' was coded 3; 'Usually well-behaved in class, usually obeys classroom rules, is friendly, polite, and respectful of others' was rated 4; and 'Mostly well-behaved in class, mostly obeys classroom rules, is friendly, polite, and respectful of others' was coded 5.

Student's Relationships with Classmates

Students' relationships with classmates were rated based on the class teachers' perception by using the following descriptors: 'Unpopular with classmates' was rated 1. 'Liked by a few but disliked by others' was rated 2; 'No close friends in class but isn't disliked' was rated 3; 'Has friends in class but isn't popular' was rated 4; and 'Popular with classmates' was rated 5.

Student's Relationships with other Teachers

The class teachers also gave their perceptions about their students' relationships with other teachers using the following criteria;' Ongoing relationships difficulties with some teachers' was rated 1; 'Ongoing relationships difficulties with a teacher's was rated 2; 'No evidence of relationship difficulties with some teachers' was rated 3; 'Gets on very well with some teachers but less so with others' was rated 4; and 'Generally very positive relationships with other teachers' was rated 5.

My Relationships with this Student (the class teachers' own relationships)

The class teachers rated their own relationships with each student based on the following criteria: 'Very poor' was rated 1; 'Poor' was rated 2; 'Not close but not distant' was rated 3; 'Get on well' was rated 4; and 'Very close and get on well' was rated 5.

3.7.5 Class Teacher Rating Form Issue

The Class Teacher Rating Form developed for this study was given to class teachers to complete. By using the Class Teacher Rating Form, the class teachers rated their students regarding their academic achievement, learning engagement, pro-social behaviour, relationships with the other teachers (student's relationships with the other teachers), relationships with their peers, and the class teacher's own relationships with the student whom she or he was rating.

A limitation of the Teacher Rating Form measures is that each of the six variables comprised only one item. Ideally, each scale should consist of multiple items. The primary reasons for using only one item for each of the scales was to minimize the work load of the class teachers since they were also participating in the interview. Moreover, the Class Teacher Rating Form was designed to be completed at the same time as students were completing the questionnaire. Due to the time constraints, for pragmatic reasons the variables were kept as simple as possible. Because each variable of the Class Teacher Rating Form merely consisted of one item, it was not possible to run reliability analysis.

3.8 Quantitative Data Analysis

The data collected from the questionnaire was analysed by using the SPSS version 20 and Hierarchical Linear Modelling version 7 (HLM7). Firstly the quantitative data by questionnaire were entered in SPSS version 20. Then Factor Analysis was run in order to see the strength of the eight subscales. The reliability of each construct was also run as well as the factor scores. Next, the data gathered from the Teacher Rating Form was entered into SPSS version 20. Hierarchical Linear Modelling analysis was used to look at the association between classroom climate and prosocial behaviour, learning engagement, and academic achievement. The Hierarchical Linear Modelling analysis was used because my data were nested or structured (Dorman, 2008; Field, 2013; Hungi, 2003; Lee, 2000).

In this study, I looked at students' perceptions of their classroom climate where students were nested from classes, and classes were nested from schools. The characteristics that belong to student level such as gender and age and the class characteristics such as year level, teachers' experiences, and class size (refer to Chapter Four).

3.9 Justifications of the Variables

In this section, I will present the justification for including the variables in my analysis for example, gender, class size, year level, age, high and low score classes and streamed classes, and teachers' teaching year experience. The list of the variables is displayed in Table 3.6. Learning engagement, prosocial behaviour and academic achievement were used as the main outcomes as well as students' characteristics when running the HLM analysis level one. The other outcomes are peer relationships, teacher-student relationships, and class teacher relationships with their students were also used as students' characteristics and included in the HLM analysis. Since the six outcomes have been explained in previous sections, in the following sections, they will not be explained again why they were included in the HLM analysis.

Gender (GND)

Information about students' gender was gathered from students' questionnaire where they were asked to write their gender, and from the Teacher Rating Form. Many studies included gender as an important characteristic that might influence classroom learning engagement, prosocial behaviour and academic achievement. For example, Wolf and Fraser (2008) assessed the effectiveness of inquiry-based instruction based on gender and year level of students in the United States of America. Their research findings showed that inquiry-based instruction was differently effective for boys and girls. In addition, Way, et al. (2007) hypothesized that males and higher SES students had more positive perceptions of the school climate with less decrease over time than for females and lower SES students. They found that female students reported sharper declines in peer support than male students over time. This situation could influence their learning outcomes. In addition, the research findings of Koth, Bradshaw, and Leaf (2008) showed that student-level factors such as gender produced the largest proportion of variance in perceptions of school climate. The literature highlights that positive school climate influences students' learning engagement.

Some studies looked at how single gender classes influenced students' achievement. Warrington and Younger (2001) examined research evidence on whether the implementation of single-gender class strategy positively influenced the improvement of both girls' and boys' academic achievement. From their review, they concluded that the single-gender class strategy in the school was effective in improving academic

achievement of both girls and boys. In addition, Beaman, Wheldall, and Kemp (2006) reviewed literature on the issues of gender interaction in the classroom in which male students tended to get more attention from teachers than female students. They also highlighted that boys acquired lower achievement than girls. Hence, gender can be counted as an important variable when looking at classroom engagement and academic achievement.

Class Size (CLSSIZE)

With respect to class size, the information was gathered from the class teachers and schools' information. The information was collected prior to the survey with students. The current data indicated that rural schools tended to have smaller classes than in urban schools. This section discusses literature related to class size.

Studies have been conducted to look at the effect of class size on students' outcomes because they wanted to explore whether class size influenced students' outcomes. For example, Darmawan and Keeves (2006) investigated several factors influencing students' achievement in Canberra, Australia. They found that larger class size had a positive effect on students' science achievement. Based on their findings, in some cases, class size did not make a difference. According to them, this might be because some schools adopted streaming classes where they tended to select the best teachers and place them with the more capable students in large classes (Darmawan & Keeves, 2006).

Krueger (2003) investigated evidence of the class size effect on student achievement by reviewing research evidence. He found there was a relationship between class size and academic achievement. Similar findings were revealed by Lee and Loeb (2000). Hanushek, Mayer, and Peterson (1998) highlighted that in some cases, small class size positively influenced student achievement, but in some cases, the results showed no significant change on student achievement. According to them, this might be because of the complexity of the classroom situation, for example, in terms of specific teachers, specific groups of students, and specific subjects where small classes could be very beneficial for students. This was relevant to what Sanders, Wright and Horn (1997) found in their study. Their research findings indicated that class size had a small impact on student outcomes. Compared to teacher variables, the findings showed that teacher

effects were principle factors influencing student academic outcomes. Class size as a variable was included as it might be relevant to Indonesian context.

Year Level (YRLV) and Age (AG)

In relation to year level (YRLV) and age (AG), these variables were collected from students' questionnaire where they were required to write their age and year level before doing the questionnaire. The reason for explaining these variables at the same time is that they were related. Year seven students are usually aged between 12 and 13, Year eight students are usually aged between 14 and 15 years old, and Year nine students are usually aged between 15 and 16. However, sometimes some students started their school at an early age, sometimes quite late.

Some researchers included students' age and year level as factors that contributed to students' achievement. For example Keeves, Hungi, and Afrassa (2005) measured value added effects across schools. They found students' age and gender had a significant effect on their achievement. In addition, Scheithauer, Hayer, Petermann, and Jugert (2006) investigated bullying in German schools in which they included ages (grades) and gender factors. In their study, they used the terms ages and grades for the same purpose. Their findings revealed that younger students experienced the highest rates of bullying. Thus age and year level might be important variables in the Indonesian context so they were included in the analysis. In addition, Wang and Holcombe (2010) used year level of students as a control variable when investigating the association of school climate and learning engagement and academic achievement. The results showed that school climate had significant direct and indirect effects on students' learning engagement and academic achievement in different year levels.

High and Low Score Classes with Streamed Classes (HISTREAM)

High and Low Score Classes and Streamed Classes were combined and resulted in HISTREAM variable (high and low score classes with streamed classes). The information about high and low score classes were gathered from descriptive analysis as shown in Table 6.1. This information was discussed in more detail at the beginning of Chapter 6. In terms of streamed classes, the information was collected from the teachers and the schools' information.

Whitburn (2001) investigated whether there were any outcome differences between pupils in 'set by ability' classes and those in mixed ability classes as well as those in

non-grouped classes relevant to the earlier studies mentioning the benefits of grouping students based on their achievement in Mathematics especially for capable students. In the study, Whitburn found that there was a small increase of progress but it was not significant. According to her, this finding challenged the evidence from earlier studies

Teachers' Teaching Years of Experience (TCHEXP)

Associated with teachers' teaching experience, the information was collected based on teachers' comments in the interviews. In this present study, teachers' experiences refer to how long the teachers have been teaching. Some teachers have been teaching 10 years or less, some have been teaching between 11 and 19 years, and others have been teaching more than 20 years.

Teachers' years of teaching experience (a teacher characteristic) has been revealed as an important factor contributing to students' outcomes. For example, Rockoff (2004) measured the relation between student achievement and teaching experience. The results indicated large differences in quality among teachers within schools and teaching experience significantly increased student achievement. This indicates that teachers' years of experience is a crucial variable to include in the analysis.

Table 3.6
Variables Tested in the Two-Level Models

	Variable Label	Variable Name (Description)
Level 1	CLS_CLM	Classroom Climate
	GND	Gender
	AG	Age
	ACHIEV	Academic Achievement
	L_ENG	Learning Engagement
	P_BHV	Prosocial Behaviour
	ST_REL	Student-Teacher Relationship
	SP_REL	Student-Peer Relationship
	MYREL	My Relationship With This Student (Class teacher judgement)
Level 2	CLSSIZE	Class Size
	YRLV	Year Level
	STREAMED	Streamed Classes
	HISTREAM	High and Low Score Classes with Streamed Classes
	ACHCAT	High and low score classes
	PROFEM	Proportion of Females
	MEANPROS	Mean of Prosocial Behaviour
	MEANOALL	Mean of All Classroom Climate
	TCHEXP	Teachers' Teaching Year Experience

3.10 Qualitative Data Collection

Qualitative research methods were used to explore the teaching practices in Maros Regency junior high schools that influenced classroom climate. In particular, this aimed to identify patterns and highlight the issues occurring in teaching practices. The use of a qualitative method for this stage was appropriate as it enabled me to explore more deeply the teaching practices that influenced classroom climate in Maros Regency junior high schools. It has been recognised that qualitative methods provide a better understanding of a context which will be more difficult to convey with quantitative data alone (Teddlie & Tashakkori, 2009). Furthermore, the qualitative methods employed semi-structured interviews with 24 class teachers.

Interviews with 24 teachers from 12 schools were used to gather information about teaching approaches, methods and activities that teachers think influence classroom climate in Maros Regency Junior High Schools. The semi-structured interviews each lasted approximately half an hour. The main interview questions are provided in Table 3.7.

Table 3.7.
The Main Interview Questions

No.	Aspects	Question
1	Opening the interview to establish friendly relationships (between interviewer and teacher)	General questions
2	Relational aspects: • Caring • Trust • Respects • Fairness	What do you do to establish close relationships with your students? How successful are you in doing this with all your students?
3	Questions about teaching practices	What do you do to help students to work cooperatively together? How successful are you in doing this? What do you do if a student appears to dislike you?
4	Teacher's Support	Why do some students avoid becoming engaged at school? What do you do when students are not engaged or avoid doing work in class? What do you do if one of your students comes from a very poor family where he doesn't have the facilities to do homework effectively, or the resources of his classmates?
5	How students treat each other Peer relationships Peer conflicts	What do you do to help isolated or rejected students to be accepted by classmates? How successful are you in doing this? What would you do if groups of students in your class are frequently in conflict? What would you do if there is a lonely and socially isolated student in your class?

6	Home school relationships	What do you do to establish good relationships with the parents of your students? How successful are you in doing this?
7	Student self-control behaviour	What would you do: If a student is continually being disruptive in class? If a student appears to be unhappy or depressed in class? If a student is continually bullying another student? If a student has a problem managing his or her anger.

Interviews were conducted individually in the form of an unfolding conversation rather than a structured question-answer interview or interrogation. The interviews focused on teaching practices, relationships, and classroom climate. Before the interview began, it was explained to the teachers that the interview was about classroom climate, including aspects such as teachers' relationships with students, students' relationships with their peers or classmates, and students' behaviours in the classroom. In these interviews, class teachers were respected as valued and experienced colleagues. No answers were regarded as right or wrong and later questions depended upon their answers to earlier questions.

The teachers were free to choose a convenient place for them to be interviewed as well as the time. Mostly the interviews were conducted at school. Two of them preferred being interviewed in their homes. At the conclusion of the class teacher interviews, participants were warmly thanked for their contribution and told their collaboration and contribution would be recognised and was crucial importance to this study.

3.11 Qualitative Data Analysis

These are the steps of how the qualitative data were generated, defined, and analysed. Firstly, the interview results were partially transcribed. Following this the transcripts were translated from Indonesian language to English. Ten of the 24 transcripts were fully translated from introduction to the end. The rest of the transcripts were partly translated. The translated transcripts were then imported to the NVivo file. This software was used as a tool to help organise qualitative data, and run the analysis in order to see the patterns of the issues (Bazeley, 2009; Richards, 2005).

I read all of the interview transcripts. I read them through line by line, and paragraph by paragraph. Then I underlined the key ideas and made some notes next to the paragraphs. After reading through the transcripts and making some notes, these were compared with the transcripts. The categories of topics were formulated using an

inductive approach. The names of the categories were revised several times and the literature was again reviewed regarding teaching practices and relationships. The themes or categories were then grouped. Briefly, both inductive and deductive approaches in exploring the concepts were used (O'Leary, 2004, p. 197).

Before the analysis process started, nodes of the themes or categories were created and defined (Appendix K). Defining the categories was helpful to make my coding more consistent. Many different sources relating to the definition of the categories were studied in order to build an understanding of the terms. The appropriate definitions of the categories for the research context were then determined (refer to Appendix K).

The next process was coding including revising and refining the coding. The following step was creating interviewees' attributes or demographic indicators that would enable me to run further analyses such as making comparisons when and if needed. The qualitative data was then explored by creating models of each main category. From the NVivo models, the main categories could be seen and how they were connected to their sub-categories. The models provided a general picture of the issues emerging from the data. The charts of the coding for each class were explored. This process allowed me to choose how many categories I wanted to display in charts. In this analysis, I chose 30 categories since there were 30 main categories. Hence, I could see the picture of the teaching practices from each class. After identifying the most frequently raised issues or themes mentioned by each class teacher, the references of each theme were examined again to see how many participants commented on these themes.

In addition, there were some other attributes of the participating teachers collected but they could not be compared because of their unequal numbers. These were gender, school location, and subjects. In terms of subject, the teachers taught different subjects such as Indonesian Language, English, Sport, Math, Arts, Social Science/Economy, Social Science/Geography, Social Science/History, Biology, and Civic Education.

Three descriptors that link with the research question were used i.e. "What teaching practices are used in Maros Regency junior high schools to promote the development of a positive classroom climate?" The three descriptors were: exploring concepts or categories, models of the categories and charts of coding. Based on these, an overall picture of teaching practices in the 24 classes emerged.

3.12 Validity and Reliability

According to Hammersley (1992) reliability refers to the degree of consistency with which instances are assigned to the same category by different or by the same observer on different occasions. On the other hand, validity refers to 'the extent to which an account accurately represents the social phenomena to which it refers' (Hammersley, 1990). In terms of validity, Silverman (2011) pointed out some criteria of assessing validity such as the impact of the researcher on the setting, the values of the researcher, the truth status of a respondent's account, comparing different kinds of data (e.g. quantitative and qualitative) and different methods to see whether they corroborate one another, and taking one's findings back to the subjects being studied.

This study used the ClassMaps Survey (Doll, Spies, LeClair, et al., 2010). The validity and reliability of this questionnaire have been already tested (Doll, Spies, Champion, et al., 2010; Doll, Spies, LeClair, et al., 2010; LeClair, Doll, Osborn, & Jones, 2009; Nickolite & Doll, 2008). More details have been explained in Chapter One (refer to An Overview of Classroom Climate).

Before administering the Class Teacher Rating Form to the teacher participants, it was given to four teachers who would not be involved in the study. The Class Teacher Rating Form was accompanied by a rating guide. It was explained how to fill out the form based on the rating guide (refer to Appendix H2). Some revision was made after that. In the first rating form, the teachers were aked to write the academic achievement using a scale, for example scales 50 to 60 to 70; 71 to 80; 81 to 90; and 91 to 100. The teachers put a check list under one of the scale columns. Then I decided that it would be better to ask them to write the actual academic achievement of the students (continuous data) (refer Appendix H1). Later on, grouping the academic achievement in scales would be done when it was needed. The revised Class Teacher Rating Form and rating guide were distributed to the participating teachers.

Regarding the validity of the interview, the interview questions were piloted with six teachers. Based on the trial interviews and feedback received, the way the questions were addressed was improved and refined until I felt completely comfortable and relaxed in conducting the interview. Then I considered that I was ready to conduct the interviews with participating teachers. Before the interview started, the teacher participants were asked about the term classroom climate so that they understood the

topic that they would talk about. Since the interview questions were addressed in Indonesian plain language, no difficult words or terms related to the interview questions were used.

3.13 Ethical Considerations

Since the proposed study involved human subjects in a questionnaire, completing Class Teacher Rating Form, and participating in an interview, processes and procedures were developed to ensure free and informed consent, confidentiality and where possible, anonymity. While the class teachers were aware their students completed a questionnaire, they were not given any information from the questionnaire that identified individual students. Approval for this research was granted by Flinders University Social and Behavioural Research Ethics Committee Project number: 5797 (Appendix A1).

3.14 Summary of the Chapter

This chapter provided the rationale for using mixed methods, the research procedure, site and participant selection, questionnaire, teacher rating form, interview, data analysis, validity and reliability, and ethical consideration. In the next chapter, I present the findings from the survey with the students in order to determine the relationships between classroom climate and students' outcomes: learning engagement, prosocial behaviour and academic achievement as well as other characteristics which influenced the outcomes.

CHAPTER FOUR: QUANTITATIVE DATA ANALYSIS AND FINDINGS

4.1 Introduction

The purpose of this study is to describe the classroom climate in junior high schools in Maros Regency, South Sulawesi Province, Indonesia, and to answer the research question: What is the relationship between classroom climate and prosocial behaviour, learning engagement and academic achievement? In order to examine this research question, the ClassMaps Survey questionnaire (Doll, Spies, LeClair, et al., 2010) was used (refer to Appendix C). There were 704 public junior high school students who participated in the survey. However, four of the student participants were excluded from subsequent analysis because they did not complete the questionnaire. Two of them did not answer one page of questions; and the other two did not answer around four questions and they did not write their ID so that it would be hard to make a link between their questionnaire results with the ratings given by their class teachers. The context of the data resources and the results of the survey are presented in the following sections. Regarding the three outcomes (pro-social behaviour, learning engagement and academic achievement), the data were gathered from the 24 participating class teachers by using a teacher rating form (TRF) developed for this research.

4.2 Normality Analysis

First, a normality analysis was run to be sure that data were normally distributed (Field, 2013). I looked at the normality of the data distribution of the classroom climate subscales and the outcomes based on statistical significance (Mean), P-P Plot, and histogram as well as the kurtosis and skewness. The results showed that the classroom climate scale was approximately normally distributed, with a skewness of 0.02 (SE = 0.09) and a kurtosis of 0.065 (SE = 0.185). A normality test was also run for the eight subscales of the classroom climate, and the results showed that they were approximately normally distributed (refer to Appendix D2).

Field (2013, p.20) and Pallant (2005, p.52) highlighted that in a normal distribution the values of skewness and kurtosis are zero. In relation to the outcomes, academic achievement showed a skewness of -0.16 (SE = 0.09) and a kurtosis of 1.78 (SE = 0.19). This indicates that the kurtosis value (1.78) of the academic achievement does not show a normal distribution. The other outcomes such as learning engagement, prosocial behavior, student-teacher relationships, peer relationships, and my relationships with this student (class teacher relationships) showed they were not normally distributed (very skewed), in which the skewness and kurtosis are displayed in Table 4.1.

The next normality analysis involved P-P Plot and histogram. The results of the P-P Plot and histogram tests are presented in Appendices D2 and D3. With regard to the skewness of the five outcomes, it might be possible that teachers tended to rate their students better than their students' real situation because they wanted to give more positive impressions.

Table 4.1
Means, Skewness and Kurtosis of Classroom Climate Scale and the Six Outcomes

N = 700	Mean Statistic (SD)	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Classroom Climate Scale	1.80	.02	.09	.07	.19
Academic Achievement	76.97	-.16	.09	1.78	.19
Learning Engagement	4.12	-.68	.09	-.45	.19
Prosocial Behaviour	4.33	-1.15	.09	1.38	.19
Student-Teacher Relationships	4.00	-.59	.09	1.10	.19
Student-Peer Relationships	4.16	-.91	.09	1.80	.19
My Relationships With This Student	4.57	-2.09	.09	4.41	.19

4.3 Factor Analysis

There are two types of factor analysis, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). CFA is usually used to test a hypothesis (Widarjono, 2010). For example, Doll et al. (2010) used CFA since they wanted to prove that their classroom climate questionnaire had strong validity. On the other hand, EFA is not used to prove a theory, but to build a theory by looking at how the constructs look like based on the participant responses (Widarjono, 2010, p.275).

Since my data did not aim to test a hypothesis, in this analysis, I used exploratory factor analysis (EFA) and principal component analysis (PCA) to identify the clusters of variables, and the correlations between each pair of variables (Field, 2013). PCA also aims to explain the maximum amount of common variance in a correlation matrix (Field, 2013). This section covers preliminary analysis of the factor analysis, factor analysis with Promax rotation, and rotated factor loadings.

Preliminary Analysis

I ran a preliminary analysis using Varimax rotation in order to see the pattern of relationships. The results showed that the eight subscales were interrelated, thus for doing the factor analysis, Promax rotation (Oblique) was used. There are some ways to see the relationships among the constructs, and three of them are by looking at the KMO and Barlett's Test, the determinant value, and anti-image correlation matrix. The KMO showed .87. This value indicated very good relationships (Field, 2013). The determinant value was 2.06E – 006 = 0.00206 is > the necessary value 0.00001. This is one indication that all questions in the subscales correlated reasonably (Field, 2013). The diagonal elements of the anti-image correlation matrix were above .74 indicating all of the values were above the minimum criterion of .50. These results indicated a good category of interrelationships of the constructs to run factor analysis using Promax (Oblique) rotation (Field, 2013).

Factor Analysis with Promax

In the first stage, I ran FA using Promax rotation for each individual subscale. The results showed that two of the subscales (Taking Charge -TC and Following Class Rules - FCR) loaded on two components or factors. For Subscale TC, items 2 and 8 did not contribute to the subscale (TC) itself (refer to Appendix E2). For subscale FCR, items 4 and 5 loaded on two components indicating that the items did not contribute much to subscale FCR (refer to Appendix E2). For stage 2 of the Factor Analysis, I dropped the four items, items 2 and 8 of TC subscale, and items 4 and 5 of FCR subscale. After excluding these items, the two subscales cleanly loaded on to one component. Thus for the next stage of FA, the four items were dropped. Table 4.2 presents the pattern matrix for the eight factor structure of the CMS. Results indicated that peer aggression (I Worry That - IWT)) was the strongest score loading. This was followed by self-determination (Taking Charge or TC), relationships with parents

(Talking with Parents - TWP), and peer conflict (Kids in This Class - KITC), self-belief (Believing in Me - BIM), My Classmates (MC), My Teacher (MT), and Following Class Rules (FCR).

Similar to Doll, Spies, LeClair's et al. findings (2010), there were considerable cross-loadings between the BIM and TC subscales. Three of the eight items loaded more strongly on the TC subscale. However, they were retained in the BIM subscale because the component loading showed one component (refer to Appendix E2). This indicated that the items in the subscale were consistent with measure the subscale itself. One of the seven MT items loaded more significantly on the BIM subscale, but it was maintained in the MT subscale. Furthermore, KMO and Bartlett's Test was run again and it showed .872 indicating that the relationships among the subscales were good (Field, 2013, p. 695).

Rotated Factor Loadings

In running the extract rotation, I considered the number of factors to be eight since the number of the classroom climate constructs was eight. Before fixing it to the eight factors, it loaded on 12 components. Table 4.2 displayed the pattern matrix of each subscale. On this table only the scores which loaded above .30 on each subscale are presented. For the complete loading scores refer to Appendix E1.

Table 4.2
Pattern Matrix of CMS' Subscales

Pattern Matrix[a]								
	Component							
	1	2	3	4	5	6	7	8
I Worry That (IWT)								
I worry that other kids will do mean things to me.	**.687**							
I worry that other kids will tell lies about me	**.729**							
I worry that other kids will hurt me on purpose.	**.721**							
I worry that other kids will say means things about me.	**.714**							
I worry that other kids will leave me out on purpose	**.750**							
I worry that other kids will try to make my friends stop liking me.	**.765**							
I worry that other kids will make me do things I don't want to do.	**.572**							
I worry that other kids will take things away from me.	**.525**							
Taking Charge (TC)								
I want to know more about the things we learn in this class.		**.412**						
I work as hard as I can in this class.		**.639**						
I find and fix my mistakes before turning in my work.		**.508**						

I learn because I want to and not just because the teacher tells me to.	**.591**					
When the work is hard in this class, I keep trying until I figure it out.	**.580**					
I know the things I learn in this class will help me outside of school	**.403**					
Talking With My Parents (TWP)						
My parents and I talk about my grades in this class.		**.534**				
My parents and I talk about what I am learning in this class.		**.677**				
My parents and I talk about my homework in this class.		**.629**				
My parents help me with my homework when I need it.		**.606**				
My parents and I talk about ways that I can do well in school.		**.648**				
My parents and I talk about good things I have done in this class.		**.615**				
My parents and I talk about problems I have in this class.		**.562**				
Kids In This Class (KITC)						
Kids in this class argue a lot with each other.			**.734**			
Kids in this class pick on or make fun of each other.			**.764**			
Kids in this class tease each other or call each other names.			**.617**			
Kids in this class in this class hit or push each other.			**.633**			
Kids in this class in this class say bad things about each other.			**.654**			
Believing In Me (BIM)						
I can do my work correctly in this class.				**.551**		
I can do as well as most kids in this class.				**.384**		
I can help other kids understand the work in this class.				**.513**		
I can be a very good student in this class.				**.596**		
I can do the hard work in this class.				**.587**		
I can get good grades when I try hard in this class.	**.434**			.362		
I know that I will learn what is taught in this class.	**.593**			.199		
I expect to do very well when I work hard in this class.	**.541**			.130		
My Classmates (MC)						
I have a lot of fun with my friends in this class.					**.592**	
My friends care about me a lot.					**.462**	
I have friends to eat lunch with and play with at recess.					**.581**	
I have friends that like me the way I am.					**.573**	
My friends like me as much as they like other kids.					**.496**	
I have friends who will stick up for me if someone picks on me.					**.643**	
My Teachers (MT)						
My teacher listens carefully to me when I talk.						**.478**
My teacher helps me when I need help.						**.487**
My teacher respects me.						**.709**
My teacher likes having me in this class.						**.548**
My teacher makes it fun to be in this class.						**.414**
My teacher thinks I do a good job in this class.						**.172**
My teacher is fair to me.						**.428**
Following Class Rules (FCR)						
Most kids work quietly and calmly in this class.						**.530**

Most kids in this class listen carefully when the teacher gives directions.	**.470**
Most kids follow the rules in this class.	**.745**
Most kids in this class behave well even when the teacher isn't watching.	**.640**

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 7 iterations.
b. Subscale TC, item 2 and 8; subscale FCR, item 4 and 5 were dropped

The eigenvalue is 42.47%
The subscales are ordered from the highest to the lowest loadings.

4.4 Reliability Analysis

Following this I ran a reliability analysis of the classroom climate constructs to check the internal consistency of the subscales. From the reliability analysis the expected values of Cronbach's alpha are about .70 to .80 indicating strong internal consistency (Field, 2013, p. 712). The results showed that Cronbach's alpha of the eight subscales ranged from .60 to .85. Some literature mentioned that psychological constructs, the values below .70 were still acceptable because of the diversity of the constructs measured (Field, 2013, p. 709). To sum up, the values of Cronbach's alpha of the classroom climate subscales showed reliable internal consistency and were suitable for conducting further statistical analysis. The summary of Cronbach's Alphas for the subscales is presented in Appendix E3.

In relation to the reliability of the Teacher Rating Form, it was not possible to run a reliability test to see Cronbach's Alpha since each category or variable of the teacher rating form consisted of only one item. This includes five variables which were rated from 1 to 5, those being Learning Engagement, Prosocial Behaviour, Student and Teacher Relationships, Student and Peer Relationships, and My Relationships with This Student (class teachers' own relationships with each student). The academic achievement used continuous data in which the lowest score was 45, and the highest score was 95. From the Teacher Rating Form, I gathered data about student relationships that covered Student and Teacher Relationships, Student and Peer Relationships, and My Relationships with This Student. I included these in the teacher rating form because I considered that this data would be useful as support information about classroom climate from the class teachers' perspectives.

4.5 The Hierarchical Linear Modelling (HLM) Analysis

The data in the present study were multilevel in nature, with students in level one, and classes in level 2. Level 1 analysis (student level) included characteristics that belonged to students, level 2 analysis involved characteristics that belonged to classes (class level). Hierarchical Linear Modelling (HLM7) (Raudenbush, Bryk, & Congdon, 2010) was therefore used to examine students nested in classrooms. In the following subsections, I will present the descriptions of the two level HLM models (student level and class level), the classroom climate and other characteristics influencing academic achievement, learning engagement, and prosocial behaviour.

4.5.1 Descriptions of the Two Level HLM Models

The main purpose of this study was to examine the relationship between classroom climate and prosocial behaviour, learning engagement, and academic achievement in Maros Regency junior high school students. In this study classroom climate has been proposed as the main predictor of the three outcomes: prosocial behaviour, classroom engagement and academic achievement. In considering with the complexity of students' learning in the classroom, other characteristics might also contribute to students' outcomes. Some characteristics belong to students (student level), and others belong to classes. The characteristics belonging to students and classes are presented in Table 3.6.

Table 4.3 presents the available variance (variance component at the level / total variance available (Hungi, 2003, p. 107) and the proportion of the variance explained of the fit models of the learning engagement, prosocial behaviour, and academic achievement (Null variance component – Model' variance component at the level / Null variance comp) (Darmawan & Keeves, 2006; Hungi, 2003). The fit model of each outcome variable (Academic achievement, Learning Engagement, and Prosocial Behaviour) was determined based on the deviance and final variance of each level model (Hungi, 2003; McCoach & Black, 2008). A smaller deviance indicates a better model, and the final variances are expected to be smaller than the null variances (Hungi, 2003). The deviance parameters for each model and the variance components of each model are shown in Table 4.4.

The variance partitioning coefficient (VPC) for each variable was calculated and adjusted to determine the proportion of variance in each outcome that lay within

classrooms (students) and between classes (Hungi, 2003, p. 107). Results of the first step of the HLM (Null Model) are presented in Table 4.3. The results indicated that around 70% of the learning engagement variance lay in students (within the classroom), and around 30% of the variance existed at the class level (between classes). With regard to prosocial behaviour, around 25% of the variance lay in students (within the classroom), and around 75% of the variance existed at the class level (between classes). In terms of academic achievement, around 55% of the variance lay in students (within the classroom), and around 45% of the variance existed at the class level (between classes).

Because of the variance in the two levels, I needed to explore the following questions: Why did some students have high outcomes, and some others have low outcomes? What were the characteristics influencing the students that led to the differences? What characteristics did the classes have that are associated with their outcomes? Therefore, I would explore students' characteristics and class characteristics that were associated with their outcomes, questioning whether classroom climate is a prominent predictor, and what are other factors that contribute to the outcomes. In running the HLM analysis, the step-down procedure of the predictors was undertaken, in which variables were entered into the equation at the same time and deleted any non-significant variables (Hungi, 2003, p. 103).

Table 4.3
Available Variance and the Proportion of Variance Explained of the Fit Model in the Three Outcomes

	Learning Engagement Model		Prosocial Behaviour Model		Academic Achievement Model	
	Variance Available	*Prop. of Variance Explained	Variance Available	*Prop. of Variance Explained	Variance. Available	*Prop. of Variance Explained
Student	70%	49%	25%	55.20%	55%	29.62%
Classes	30%	19%	75%	66.39%	45%	67.20%

*The proportion of variance explained by the fit model

In the next step, the HLM analyses were extended to answer those questions. The goal was to determine whether students' characteristics could explain the variation in the average level of learning engagement, prosocial behaviour, and academic achievement within classrooms after controlling for these characteristics: students' perceptions of classroom climate, gender, and age. These analyses were divided into three parts. First,

learning engagement (outcome) for level 1 model was analysed by including students' characteristics including students' perceptions of classroom climate, gender, and age. For the level 2 model, learning engagement was analysed by including characteristics of classes such as year level, and teacher's teaching experience. The same procedures were run for prosocial behaviour, and academic achievement. The relationships of classroom climate as well as the other characteristics with academic achievement, learning engagement, and prosocial behaviour were examined. The results of these analyses are presented in Table 4.5, Table 4.6, and Table 4.7. The analysis is listing the fit for the three outcomes: academic achievement, learning engagement, and prosocial behaviour.

Table 4.4
Summary of HLM Models of the Outcomes, Deviance, and Final Variance

Models	Deviance	Final Variance Component at Each Model
Ach_Nul Model	4029.53	Level 1(r) = 16.69; Level 2 (u_0) = 13.70
Ach_L1_M1	3820.76	Level 1(r) = 12.22; Level 2 (u_0) = 17.63
Ach_L1_M2	3821.77	Level 1(r) = 12.18; Level 2 (u_0) = 17.43
Ach_L2_M1	3766.15	Level 1(r) = 12.17; Level 2 (u_0) = 5.47
Ach_L2_M2	3774.05	Level 1(r) = 12.17; Level 2 (u_0) = 4.38
Ach_L2_M3	3756.20	Level 1(r) = 11.91; Level 2 (u_0) = 5.06
Ach_L2_M4	3763.73	Level 1(r) = 11.89; Level 2 (u_0) = 4.85
Ach_L2_M5	3773.50	Level 1(r) = 11.92; Level 2 (u_0) = 4.83
Ach_L2_M6	3772.53	Level 1(r) = 12.00; Level 2 (u_0) = 4.76
Ach_L2_M7	3755.10	Level 1(r) = 11.77; Level 2 (u_0) = 4.63
Ach_L2_M8	**3759.91**	**Level 1(r) = 11.75; Level 2 (u_0) = 4.49**
Ach_L2_M9	3707.66	Level 1(r) = 10.09; Level 2 (u_0) = 24.43
Ach_L2_M10	3695.46	Level 1(r) = 9.96; Level 2 (u_0) = 24.59
Ach_L2_M11	3709.39	Level 1(r) = 10.05; Level 2 (u_0) = 20.61
Ach_L2_M12	3702.35	Level 1(r) = 10.04; Level 2 (u_0) = 20.58
L_Eng_Nul Model	1687.85	Level 1(r) = 0.60; Level 2 (u_0) = 0.26
L_Eng_L1_M1	1255.56	Level 1(r) = 0.31; Level 2 (u_0) = 0.16
L_Eng_L1_M2	1245.80	Level 1(r) = 0.31; Level 2 (u_0) = 0.16
L_Eng_L2_M1	1243.17	Level 1(r) = 0.31; Level 2 (u_0) = 0.07
L_Eng_L2_M2	1238.39	Level 1(r) = 0.31; Level 2 (u_0) = 0.06
L_Eng_L2_M3	1230.90	Level 1(r) = 0.31; Level 2 (u_0) = 0.07
L_Eng_L2_M4	**1230.85**	**Level 1(r) = 0.31; Level 2 (u_0) = 0.07**
L_Eng_L2_M5	1220.85	Level 1(r) = 0.29; Level 2 (u_0) = 0.99
L_Eng_L2_M6	1196.50	Level 1(r) = 0.29; Level 2 (u_0) = 0.95
PSB_Nul Model	1520.90	Level 1(r) = 0.47; Level 2 (u_0) = 0.16
PSB_L1_M1	994.40	Level 1(r) = 0.21; Level 2 (u_0) = 0.07
PSB_L1_M2	985.47	Level 1(r) = 0.21; Level 2 (u_0) = 0.07
PSB_L2_M1	1000.30	Level 1(r) = 0.21; Level 2 (u_0) = 0.06
PSB_L2_M2	**981.44**	**Level 1(r) = 0.21; Level 2 (u_0) = 0.05**
PSB_L2_M3	943.42	Level 1(r) = 0.20; Level 2 (u_0) = 0.59
PSB_L2_M4	912.13	Level 1(r) = 0.19; Level 2 (u_0) = 0.72
PSB_L2_M5	902.03	Level 1(r) = 0.18; Level 2 (u_0) = 0.79
PSB_L2_M6	900.36	Level 1(r) = 0.18; Level 2 (u_0) = 0.82

Ach = Academic Achievement; L_Eng = Learning Engagement; and PSB = Prosocial Behaviour; L1 = Level 1; M1 = Model 1. The bold models refer to the fit models of each variable. The fit model of each outcome variable was determined based on the deviance and final variance of each level model.

4.5.2 Classroom Climate and Other Characteristics Influencing Academic Achievement: Two Level Models

Academic achievement was the outcome variable, while classroom climate and other characteristics included were predictor variables. The analysis for Level 1 Model (student level) was run twice so that it resulted in two models (L1_M1 and L1_M2). In the first analysis for academic achievement, all the variables that belong to student level were included at the same time. Then variables, which did not show significant *p-value* were dropped for the second analysis to see whether the second model would improve. In this section, I present the results of Level 1 Model 1, Level 1 Model 2, and Level 2, the fit model for academic achievement.

Level 1 Model 1 (L1_M1) of Academic achievement

$$ACHIEV_{ij} = \beta_{0j} + \beta_{1j}*(GND_{ij}) + \beta_{2j}*(AG_{ij}) + \beta_{3j}*(L\_ENG_{ij}) + \beta_{4j}*(P\_BHV_{ij}) + \beta_{5j}*(ST\_REL_{ij}) + \beta_{6j}*(SP\_REL_{ij}) + \beta_{7j}*(MYREL_{ij}) + \beta_{8j}*(CLS\_CLM_{ij}) + r_{ij}$$

These were the variables included in Level 1 Model 1 (L1_M1) analysis: classroom climate, gender, age, and other outcomes that were gathered from the Teacher Rating Form including student-teacher relationships (ST-REL), student-peer relationships (SP_REL), and my relationships with this student (MYREL = judgement from the class teacher about individual student). Prosocial behaviour (P_BHV) and learning engagement (L_ENG) were also included to predict students' academic achievement. The results of Level 1 Model 1 (L1_M1) showed that classroom climate, learning engagement, and prosocial behaviour significantly influenced academic achievement.

On the other hand, other variables such as Age ($p = 0.57$), SP_REL ($p = 0.96$), MYREL ($p = 0.51$), ST-REL ($p = 0.06$), and gender ($p = 0.07$) insignificantly contributed to academic achievement (refer to Appendix G1). For the next analysis (Level 1 Model 2), age (AG), student-peer relationships (SP_REL), and my relationships with this student (MYREL) were excluded because they were very far from significant levels. On the other hand, Gender (GND), and student teacher relationships (ST-REL) were retained for the next analysis (Level 1 Model 2) since their significance levels were marginal (not very far from significance values).

Level 1 Model 2 (L1_M2) of Academic achievement

$ACHIEV_{ij} = \beta_{0j} + \beta_{1j}*(GND_{ij}) + \beta_{2j}*(L\_ENG_{ij}) + \beta_{3j}*(P\_BHV_{ij}) + \beta_{4j}*(ST\_REL_{ij}) + \beta_{5j}*(CLS\_CLM_{ij}) + r_{ij}$

This was the analysis of Level 1 Model 2 involving five variables of student levels. The five variables included: classroom climate (CLS_CLM), learning engagement (L_ENG), and prosocial behaviour (P_BHV), gender (GND), and student teacher relationships (ST-REL). The results showed that classroom climate, learning engagement, and prosocial behaviour significantly influenced academic achievement. On the other hand, gender, and student-teacher relationships were not significant predictors for academic achievement, however, they were still retained for further analysis since their significance values were marginal therefore there could be a possibility that they could be significant when they interacted with other variables that belonged to the class level (Level 2).

Level 2 Model: the Fit Model of Academic Achievement

Level 1 Model (Fit Model)

$ACHIEV_{ij} = \beta_{0j} + \beta_{1j}*(GND_{ij}) + \beta_{2j}*(L\_ENG_{ij}) + \beta_{3j}*(P\_BHV_{ij}) + \beta_{4j}*(ST\_REL_{ij}) + \beta_{5j}*(OVERALL_{ij}) + r_{ij}$

Level 2 Model (Fit Model)

$\beta_{0j} = \gamma_{00} + \gamma_{01}*(YRLV_j) + \gamma_{02}*(STREAMED_j) + \gamma_{03}*(MEANPROS_j) + \gamma_{04}*(TCHEXP_j) + u_{0j}$
$\beta_{1j} = \gamma_{10}$
$\beta_{2j} = \gamma_{20} + \gamma_{21}*(PROPFEM_j)$
$\beta_{3j} = \gamma_{30} + \gamma_{31}*(STREAMED_j) + \gamma_{32}*(MEANPROS_j) + \gamma_{33}*(TCHEXP_j)$
$\beta_{4j} = \gamma_{40}$
$\beta_{5j} = \gamma_{50}$

After doing the analysis of Level 1 Model 2, the next analysis was Level 2 Model. The fit model's results will be presented in this section. At this level, the HLM analysis was run 12 times where each step of the analysis produced one model. The records of each step of the analysis were presented in Appendices G1 to G14.

Level 2 Model 8 (Appendix G10) provides the fit model for academic achievement. In this model, eight variables significantly influenced academic achievement. As displayed in Level 2 Model 8 (Appendix G10), three of the five variables from student level (level 1) significantly influenced academic achievement namely classroom climate (CLS_CLM), learning engagement (L_ENG), and student-teacher relationships (ST_REL). In this model (L2_M8), prosocial behaviour (P_BHV) and gender (GND) did not show a significant influence on academic achievement. For the

class level (Level 2), year level (YRLV) and streamed classes (STREAMED) significantly influenced academic achievement. Teacher experience (TCHEXP) and the mean of prosocial behaviour (MEANPROS) also significantly predicted students' academic achievement. The proportion of females (PROPFEM) had indirect significant influences on academic achievement; but PROPFEM showed strongly direct significant influences on learning engagement (L_ENG) as shown in Table 4.5, and learning engagement (L_ENG) strongly and directly significant contributed to academic achievement.

4.5.3 Classroom Climate and Other Characteristics Influencing Learning Engagement: Two Level Models

Learning engagement was the outcome variable, while classroom climate and other characteristics were predictor variables. Similar to the analysis steps for academic achievement, the Level 1 analysis for learning engagement was also run twice so that it resulted in two models (L1_M1 and L1_M2). All of the variables that belong to student level were included at the same time, and the variables with insignificant *p-value*s were dropped for the second analysis to see whether the second model would improve. In this section, I present the results of Level 1 Model 1, Level 1 Model 2, and Level 2, the fit model for learning engagement.

Level 1 Model 1 (L1_M1) of Learning Engagement

$$L\_ENG_{ij} = \beta_{0j} + \beta_{1j}*(GND_{ij}) + \beta_{2j}*(AG_{ij}) + \beta_{3j}*(ACHIEV_{ij}) + \beta_{4j}*(P\_BHV_{ij}) + \beta_{5j}*(ST\_REL_{ij}) + \beta_{6j}*(SP\_REL_{ij}) + \beta_{7j}*(MYREL_{ij}) + \beta_{8j}*(CLS\_CLM_{ij}) + r_{ij}$$

Level 1 Model 1 analysis of learning engagement included eight variables namely Classroom climate (CLS_CLM), gender (GND), age (AG), academic achievement (ACHIEV), prosocial behaviour (P_BHV), student teacher relationships (ST_REL)_ student peer relationships (SP_REL), and my relationship with this student (MYREL). The results showed that academic achievement (ACHIEV), prosocial behaviour (P_BHV), and student-teacher relationships (ST_REL) significantly influenced learning engagement. On the other hand classroom climate ($p = 0.76$), age ($p = 0.53$), gender ($p = 0.36$), student-peer relationships ($p = 0.05$), and my relationships with this student ($p = 0.32$) did not show significant influences (Appendix G15).

Level 1 Model 2 (L1_M2) of Learning Engagement

$L\_ENG_{ij} = \beta_{0j} + \beta_{1j}*(ACHIEV_{ij}) + \beta_{2j}*(P\_BHV_{ij}) + \beta_{3j}*(ST\_REL_{ij}) + \beta_{4j}*(SP\_REL_{ij}) + r_{ij}$

For this level analysis of learning engagement (Level 1 Model 2), classroom climate (CLS_CLM), age, (AG), gender (GND), and my relationship with this student (MYREL) were excluded because they were very far from significant levels. On the other hand, student-peer relationships (SP-REL) were retained since its *p*-value was marginal (not very far from significant value). In this level analysis, there were four variables included: academic achievement (ACHIEV), prosocial behaviour (P_BHV), student-teacher relationships (ST_REL), and student-peer relationships (SP_REL). The results showed that, the four variables significantly influenced learning engagement.

Level 2 Model: the Fit Model of Learning Engagement

Level 1 Model (in the Fit Model)

$L\_ENG_{ij} = \beta_{0j} + \beta_{1j}*(ACHIEV) + \beta_{2j}*(P\_BHV_{ij}) + \beta_{3j}*(ST\_REL_{ij}) + \beta_{4j}*(SP\_REL_{ij}) + r_{ij}$

Level 2 Model (Fit Model)

$\beta_{0j} = \gamma_{00} + \gamma_{01}*(YRLV_j) + \gamma_{02}*(PROPFEM_j) + \gamma_{03}*(MEANPROS_j) + u_{0j}$

$\beta_{1j} = \gamma_{10}$

$\beta_{2j} = \gamma_{20}$

$\beta_{3j} = \gamma_{30}$

$\beta_{4j} = \gamma_{40}$

After doing the analysis of Level 1 Model 2, the next analysis was Level 2 for learning engagement, which was run for six steps. Each step of the HLM analysis resulted in one model. Thus, the records of this analysis level had six models as displayed from Appendices G15 to G22. In this section, only the fit model will be presented.

This Level 2 analysis (class level) showed the fit model for learning engagement. As can be seen in Level 2 Model 4 (Appendix G20), the results indicated academic achievement (ACHIEV), prosocial behaviour (P_BHV), student-teacher relationships (ST_REL), and student-peer relationships (SP_REL) significantly contributed to learning engagement. These four variables referred to student level. The variables, which belong to Level 2 are year level (YRLV) and the proportion of females (PROPFEM), also significantly predicted students' learning engagement

4.5.4 Classroom Climate and Other Characteristics Influencing Prosocial Behaviour: Two Level Models

Level 1 Model 1 (L1_M1) of Prosocial Behaviour

$$P\_BHV_{ij} = \beta_{0j} + \beta_{1j}*(GND_{ij}) + \beta_{2j}*(AG_{ij}) + \beta_{3j}*(ACHIEV_{ij}) + \beta_{4j}*(L\_ENG_{ij}) + \beta_{5j}*(ST\_REL_{ij}) + \beta_{6j}*(SP\_REL_{ij}) + \beta_{7j}*(MYREL_{ij}) + \beta_{8j}*(CLS\_CLM\ i_j) + r_{ij}$$

The variables included in Level 1 Model 1 (L1_M1) of prosocial behaviour analysis were classroom climate (CLS_CLM), gender (GND) age (AG), academic achievement (ACHIEV), learning engagement (L_ENG), student-teacher relationships (ST-REL), student-peer relationships (SP_REL), and my relationships with this student (MYREL). The results of Level 1 Model 1 (L1_M1) showed that classroom climate (p = 0.82) in the student level indicated an insignificant effect on prosocial behaviour. However, at the class level, the average of classroom climate (MEANOALL) significantly contributed to prosocial behaviour. Thus, this finding suggested that there was an association between classroom climate and prosocial behaviour.

Other variables were learning engagement (L_ENG), gender (GND), academic achievement (ACHIEV), student-teacher relationships (ST-REL), student-peer relationships (SP-REL), my relationships with this student (MYREL) significantly influenced prosocial behaviour (refer to Appendix G23). Age (p = 0.97*)* did not significantly influence prosocial behaviour. Therefore, for the next analysis (Level 1 Model 2), classroom climate (CLS_CLM), and age (AG) were excluded because they were very far from significant levels.

Level 1 Model 2 (L1_M2) of Prosocial Behaviour

$$P\_BHV_{ij} = \beta_{0j} + \beta_{1j}*(GND_{ij}) + \beta_{2j}*(ACHIEV_{ij}) + \beta_{3j}*(L\_ENG_{ij}) + \beta_{4j}*(ST\_REL_{ij}) + \beta_{5j}*(SP\_REL_{ij}) + \beta_{6j}*(MYREL_{ij}) + r_{ij}$$

In this level analysis (Level 1 Model 2), there were six variables included: gender (GND), academic achievement (ACHIEV), learning engagement (L_ENG), student-teacher relationship (ST_REL), student-peer relationship (SP_REL), and my relationship with this student (MYREL). The results showed that all of these variables significantly predicted prosocial behaviour (GND, p = 0.00), ACHIEV, p = 0.01), L_ENG, p = 0.00, SP_REL, p = 0.02), ST_REL, p = 0.00), and MYREL, p = 0.00)

(refer to Appendix G24). After doing the analysis of Level 1 Model 2, the next analysis was Level 2.

Level 2 Model: the Fit Model of Prosocial Behaviour

Level 1 Model

$P\_BHV_{ij} = \beta_{0j} + \beta_{1j}*(GND_{ij}) + \beta_{2j}*(ACHIEV_{ij}) + \beta_{3j}*(L\_ENG_{ij}) + \beta_{4j}*(ST\_REL_{ij}) + \beta_{5j}*(SP\_REL_{ij}) + \beta_{6j}*(MYREL_{ij}) + r_{ij}$

Level 2 Model

$\beta_{0j} = \gamma_{00} + \gamma_{01}*(MEANLRNE_j) + \gamma_{02}*(MEANOALL_j) + u_{0j}$
$\beta_{1j} = \gamma_{10}$
$\beta_{2j} = \gamma_{20}$
$\beta_{3j} = \gamma_{30}$
$\beta_{4j} = \gamma_{40}$
$\beta_{5j} = \gamma_{50}$
$\beta_{6j} = \gamma_{60}$

Level 2 Model 2 (Appendix G26) presented the fit model for prosocial behaviour. The results showed that six variables belonging to the student level significantly influenced student prosocial behaviour including gender (GND), achievement (ACHIEV), learning engagement (L_ENG), student-peer relationship (SP_REL), my relationship with this student (MYREL), and student-teacher relationships (ST_REL). With respect to classroom climate, for the class level, the average classroom climate in the classroom (MEANOALL) significantly associated with prosocial behaviour, but classroom climate at the student level did not significantly contribute to prosocial behaviour as reported in Level 1 Model 1. These findings indicated that there is a relationship between classroom climate and prosocial behaviour. Learning engagement at the student level significantly influenced prosocial behaviour, but the average of learning engagement in a classroom (MEANLRNE) did not show significant contribution to prosocial behaviour. These results might conclude that there is a relationship between learning engagement and prosocial behaviour.

4.5 Summary of the Chapter

This chapter outlined the general findings of the quantitative data of how classroom climate is associated with students' outcomes including academic achievement, learning engagement and prosocial behaviour. It also summarised other characteristics that influenced the outcomes. Firstly, classroom climate significantly influenced academic achievement. In terms of academic achievement, besides classroom climate, there were other characteristics that contributed to students' academic achievement

including learning engagement, student-teacher relationships, year level, streamed classes, the proportion of girls or boys in the classroom, teachers' teaching experience, and the average of prosocial behaviour in the classroom.

Secondly, classroom climate indicated insignificant direct influences on an individual student's learning engagement. With regard to learning engagement, several characteristics were identified which contributed namely student-teacher relationships, student-peer relationships, prosocial behaviour, and academic achievement. Year level and the proportion of girls or boys in the classroom also contributed to learning engagement.

Finally, classroom climate as a class level indicated significant influences on prosocial behaviour. This indicated that there is an association between classroom climate and prosocial behaviour. Characteristics identified as contributing to prosocial behaviour are gender, academic achievement, learning engagement, student-teacher relationships (including relationships with the class teachers of the students and general teachers), and student-peer relationships.

The next chapter will present the analysis and findings of the qualitative data from the interviews with the teachers covering the teachers' practices that supported a positive classroom climate, and some characteristics that contributed to both teaching practices and a positive classroom climate as well the characteristics that hindered a supportive classroom climate.

CHAPTER FIVE: QUALITATIVE DATA ANALYSIS AND FINDINGS

5.1 Introduction

One of the aims of this study is to look at the link between classroom climate and the teaching practices in junior high schools in Maros Regency, South Sulawesi Province, Indonesia. This chapter answers the research question: *What teaching practices are used in Maros Regency junior high schools to promote the development of a positive classroom climate?* In order to answer this research question, I interviewed 24 class teachers of the students who participated in the survey.

In presenting the findings, I used three main headings: teaching practices that promote a positive classroom climate, domains that support positive teaching practices and classroom climate, and domains that hinder positive teaching practices and classroom climate. I used the framework of the ClassMaps Survey (Doll, Spies, LeClair, et al., 2010) to look at the teachers' teaching practices that promoted a positive classroom climate as well as the aspects that contributed to positive teaching practices and a positive classroom climate. The framework of the ClassMaps Survey includes Classroom Relatedness consisting of Teacher-Student Relationships, Peer Relationships and Home-School Relationships, and Perceived Competence (Academic Self-Efficacy). This also included Classroom Supports for Autonomy that consists of Self-Determination, and Behavioural Self-Control. Self-efficacy and self-determination did not show up as a theme. In addition, I used the sub-heading Student Negative Interaction with Peers to represent peer conflicts since it covers broader aspects such as isolated students which are not counted as a conflict.

5.2 Teaching Practices that Promote the Development of a Positive Classroom Climate

The results of the qualitative data analysis showed three main domains of teaching practices that promote the development of a positive classroom climate. The three domains were teacher-student relationships, managing students' behaviour, and group work as a teaching method. Teacher-student relationships are explained through four sub-themes that emerged namely fostering close relationships, care, trust, and respect. Managing students' behaviour was achieved through giving advice, asking questions and talking with students, seeking background information, reporting to the class teachers and reconciling students. Group work as a teaching method is explained through two sub-themes, namely group work as a techique and group work as a purpose.

5.2.1 Teacher-Student Relationships

There were eight sub-themes emerging from the data about relationships: being friends with students, parenting, providing advice and suggestions, equity, care, fostering close relationships, trust and respect. Then the eight themes were merged into four themes of care, fostering close relationships, trust and respect as shown in Figure 5.1. The reason for merging these into four themes was that some themes covered other themes. For example, being friends with students, parenting, and providing advice and suggestions are related to the theme of care. Equity could be included with either respect or trust. Most of the class teachers indicated that they showed care for their class-students, fostered close relationships among students and their classmates, and gained trust, and respect. Relationships, as shown in Figure 5.1, are the main theme of the four sub-themes. In the following sections, relationships are explained based on these sub-themes.

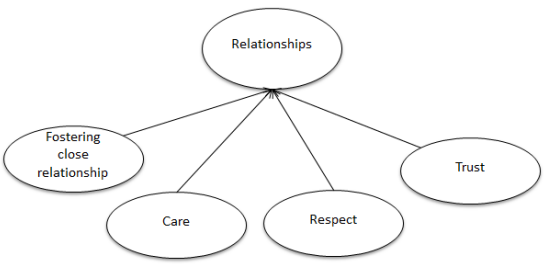

Figure 5.1 Relationships

An example of teacher-student relationships that indicates a teacher's care was given by T1:

> I gave them attention such as listening to their complaints when they had problems. I asked them how they learnt at home, how their homework was, whether they could do it well or not. I also provided a control book to check their attendance and the cleanliness of their classroom (T1).

In this quotation, teacher T1 appeared to show care in two ways. She focused on each student as a person as she tried to recognise students' problems that might not be related to their academic performance. Also, she focused on students as learners as she tried to give recognition to the students' learning at home, and whether their learning tasks were too challenging for them. When this teacher said, 'I also provided a control book to check their attendance and the cleanliness of their classroom', this can be viewed as providing routines as well as caring. The purpose of checking students' attendance regularly is to avoid a high rate of students' absenteeism, which could impact on their learning.

The following quotations are examples of a teacher-student relationship that indicates care focused on the student as a person.

> We should open ourselves to students in the sense that maybe we could be a friend to them so they will not run into drugs or sex. So if they want to talk about their problems, they can come to us. But we cannot say this to other colleagues because I am afraid they will say, 'Who are you?' (T11)

> I usually sat next to the students, and then I asked them which one they don't understand. For example, they said, 'Miss, I don't understand this because I don't have a dictionary.' I replied, "Ok, I've got a dictionary and you can borrow it." "Miss, I get confused how to use this dictionary." Then I showed him how to use the dictionary. Some students haven't known how to use a dictionary properly. "Now what is else your problem?" (T17).

Teacher T11 conveyed the idea that having flexible, friendly, warm and helpful relationships with students is important because it will prevent student misbehaviour. When this teacher said, 'I cannot say this to other colleagues because I am afraid if they will say, 'Who are you?' it indicated that some teachers still followed the traditional idea that teachers and students had hierarchical positions. This teacher wanted to say that she felt hesitant to suggest that her other colleagues could have warm and not strict relationships with students because the colleagues might think that they were more experienced than she was. In the second quotation, teacher T17 indicated that she provided care in an instructional context. By asking individual

students about their problems or difficulties in doing classroom tasks, she was aware of individual students' needs, and this was an indicator of care. To sum up, teachers showed care both in instructional contexts and non-instructional contexts (relationship outside the classroom). Teachers' care can be counted as positive relatedness support. Relatedness support has been recognised as an important aspect for promoting students' learning interest and engagement (Maulana, Opdenakker, Stroet, and Bosker, 2013 and Maulana et al., 2016). The teaching practices of the two teachers might represent many other teachers.

Bieg, Backes and Mittag (2011) define teachers' care as teacher behaviours derived from the need for relatedness to improve or maintain the quality of interpersonal relationships among teachers and students. That is, teachers' care is an indicator of the quality of the relationships between teachers and students. Thus, care exists in interpersonal relationships between teachers and students (O'Connor, 2008). Teachers' care helps their students to engage in classroom activities. Students are more motivated to actively participate in classroom activities, and they are more cooperative when they feel that teachers care about them (Nelsen, Lott, & Glenn, 2000; Wentzel, 1997).

Positive teacher-student relationships also can be seen in the following quotation from teacher T20, which indicated fostering close relationships among students as well as between teachers and students.

> We provided activities that could make them really participate. For example, Sport Days. The students really enjoyed the activities on Sport Days. They were very happy. The teachers also participated in the event. The students were also interested in Boy Scouts' activities. (T20)

Teacher T20 considered that activities such as Sport Days and Boy Scouts enable students to build close relationships with the other students and teachers. In Sport Days, class teachers work together with their students to prepare for the competition. Students in each class have to show their unity to achieve the same goal namely to make their class win on the Sport Day, and the class teachers need to be involved in the students' preparation. Hence, supportive relationships between the class teachers and their students are fostered as well as supportive peer relationships. Similarly, in Boys Scout activities, the teachers who participate in students' activities have good opportunities to build positive relationships with the students so that they have a sense

of belonging to the school which will influence their engagement at school and improve their attendance.

Another example of positive teacher student relationships was provided by teacher T23 who indicated that she built positive peer relationships:

> Starting from the classroom chair-arrangement, the boy liked to sit at the back and alone, no friends sitting next to him. I asked him to sit in the front so that he could pay attention to me. Then I also asked one of the friendly students to approach him. I told this student, "Help your friend, and accompany him. Invite him to play and make friends with others." In addition, I also advised him. (T23)

This teacher is showing that she observes and knows her students, and works to promote good peer relationships. Teacher T23 appeared to foster close relationships between a very quiet student and the other students in the classroom. He approached a popular student in the classroom to be a friend to this quiet student. This teacher seemed to believe that by approaching a popular student in the classroom, this quiet student would make friends with the others, and it would make him happy.

Another form of positive teacher-student relationships came from teacher T2:

> I invited them to talk, and listened to their heart. Once I had a student who came from a broken home. The boy then confided to me and cried. He did not reveal his problem to the other teachers. (T2)

Teacher T2 appeared to take special time to talk with students and listen to their difficulties. This was a caring act by the teacher. The student appeared to have a trusting relationship with the teacher. If the student did not trust his teacher, he would not reveal his difficult life to her.

Another form of positive teacher-student relationships was given from teacher T23:

> Sometimes I reminded them that they might consider me as their best friend, but they also had to know that I was their teacher as well as their parent in the school. And they could understand it. (T23)

Teacher T23 appeared to hold a belief that in teacher-student relationships there should be care and mutual respect. He implied that teachers should care for their students by acting as a friend and parent for them so that they would not stay away from teachers. When the teacher established friendly relationships with students, it also showed that he respected his students. However, he also expected his students to respect him and other teachers by following the norms they already understood.

The elements of teacher-student relationships such as care, fostering close relationships, trust and respect are essential indicators of quality of relationships. We learn from experience that when somebody cares for and respects us, we feel valued, important, loved, and happy. When we feel valued, important, loved, and happy, we will feel more motivated to learn, work or do positive things. Nelsen et al. (2000) state that respect invites respect; disrespect invites disrespect, so when students are acting disrespectfully, teachers might need to take a look at their own behaviour. That is, teachers should provide a model of how to respect others, for example, by avoiding humiliation and judgement, and listening to what each individual says (Bryk & Schneider, 2003; Nelsen et al., 2000). These are ways to build respect in teacher-student relationships, and this will support a positive classroom climate.

Often, conflicts occur because of the absence of respect in relationships. Tschannen-Moran and Hoy (1998) highlighted that teachers' behaviours can impact on the quality of trusting relationships. When teachers show care and respect to their students, the students will feel connection and belonging, and this will result in trusting relationships between teachers and students. Trusting relations are the basis of a comfortable and supportive classroom climate, where students will be more motivated to engage in classroom activities. This in line with Maulana, et al. (2016) that relatedness support influenced Indonesian students' autonomous motivation.

Another manifestation of a positive teacher-student relationship is the fostering of close relationships among students. When students have positive relationships with their peers, they will feel safe and happy to be in the classroom or in the school, and they will support each other. A student learns better when he or she feels safe emotionally and physically (Vitto, 2003). This situation supports a positive classroom climate. On the other hand, when students have conflict, they will feel worried, unsafe, and unhappy, and this situation does not promote a positive classroom climate.

5.2.2 Managing Students' Behaviour

The class teachers mentioned a variety of ways of managing students' behaviour. Figure 5.2 shows five ways the teachers said they dealt with students' difficult behaviours. These were giving advice, asking questions and talking with students, seeking background, reporting to the class teachers, reconciling students (resolving conflicts and disputes). These themes are explained and discussed in this section. In

addition, routines and rules are also included in this figure since they relate to student behavioural management.

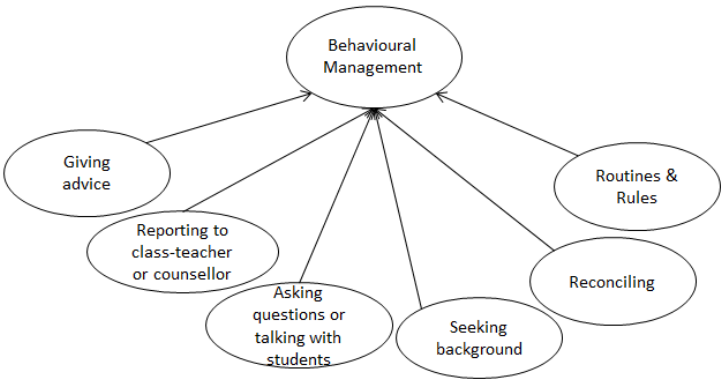

Figure 5.2 Managing Students' Behaviour

The majority of teachers spoke of using 'giving advice' as a way to manage their students' behaviours. An example was given by teacher T4:

> I think the child did not feel confident. I did the opposite from before. I approached the child who was not confident or kept away from his classmates. Actually his classmates wanted to accept him but he himself avoided them. Thus I gave the child some advice, 'You should communicate with your friends. If you stay alone or keep away from them, you will find a difficulty making progress in your study. So you need to interact with them. (T4)

This teacher wanted to help a student who had isolated himself from the others due to lack of confidence. The advice that the class teacher gave to this student can be counted as an encouragement in solving the problem. She understood the importance of positive peer relationships, and believed that students' positive relationships with peers would influence their academic success.

While giving advice was most frequently mentioned to manage students' behaviour, the teachers did not mention why this was preferred. However, some teachers considered that giving advice might be effective for some students, but it might not fit others. Giving advice seemed to be the first step in managing students' behaviour by problem solving or it might be the second option after asking questions, so before the other methods were implemented, the class teachers provided advice to their students. When this failed to solve the problem, another way would be taken such as reporting to the class teachers or counsellors.

Teacher T4 commented that she gave advice and encouragement to her student who used to isolate himself from his classmates so that he could make friends. This

indicates that the teacher cared and wanted to support the isolated student. Some studies have pointed out that advice may be seen as helpful and caring expressions would be recognised as social support (Goldsmith & Fitch, 1997, p. 454).

Most teachers were used to asking questions as a way to manage their students' behaviours. The teachers directed questions to the disruptive students, for example, by asking questions "Why do you bother your classmates? Why are you chatting? What's the matter? Why don't you do your work, and why aren't you willing to learn?" These kinds of questions were addressed to the students as the classroom problems were happening.

An example of how a class teacher managed students' behaviour in the classroom by talking with the students was given by Teacher T13 as she discussed a conflict between students about money which had disappeared:

> I talked with the student and the victim. Recently, one of the students lost her money. A boy was suspected of stealing the money. I called both students but not at the same time. I talked to the student who had lost her money, 'You might suspect someone, but you shouldn't accuse him because of stealing the money, because you might be wrong.' After that I called the suspected student. I asked him, 'Is it right that one of your classmates lost her money in the class?' 'Yes, and she accused me. I didn't do it.' I said to him, 'Probably not you. The most important thing is that you didn't take the money. But if you knew or saw somebody else taking the money, you can tell him or her to return the money. He or she can give it directly to the owner, or if he or she feels shy, he or she can just put it in her drawer.' I said this to him just as a fishing line while giving advice to him. Actually we were sure that he took the money. I talked to him very carefully so that he wouldn't be offended. (T13)

Here the class teacher used a personal and confidential conversation as a strategy to modify the behaviour of two students. She talked with the students who were involved in the conflict, both the perpetrator and the victim. Often class teachers talked with conflicted students at the same time such as when fighting and bullying occurred. However, the class teachers talked with them in turns if the case was sensitive in order to avoid any offense as occurred in the situation mentioned by teacher T13. It seemed that the teacher wanted to show her students that she cared about their problem and wanted to solve it otherwise the conflict would continue. The teacher also wanted to show the student whose money was lost that it was not appropriate to accuse somebody without any evidence. For the student who was suspected of being the perpetrator, the

teacher gave him a chance to explain the situation. The teacher did not blame him but she wanted him to understand that taking somebody's belonging was not acceptable.

Talking with students was usually employed when the students had a specific problem such as peers acting in an emotional way, serious conflicts, and poor relationships with another teacher. After talking with students, usually other strategies followed, for example giving advice, and reconciling or resolving conflicts and disputes. In order that teachers understand their students such as with their relationships with their peers, and teachers, and their difficulties, asking question and talking with them may be effective. Having a good understanding of students will help teachers consider what supports might be appropriate for them. This indicates that the higher the quality of teacher support given to students, the more positive classroom climate will be.

Many teachers thought that reconciling or resolving conflicts and disputes were ways to manage their students' behaviours, while some preferred reporting the classroom problems to the school counsellor. Reconciling or resolving conflicts and disputes was usually applied after the teachers recognised the classroom problems, for example, some students yelled at their peers, or called them with bad names or had quarrels or other types of verbal conflicts. The explanation from teacher T15 was an example of how a class teacher managed students' behaviour by reconciling students (resolving conflicts and disputes).

> They had conflicts but I made them be friends again. 'You should ask for an apology, and not do it anymore.' Usually the students who had conflicts in the class were girls, not boys. (T15)

Hence, the class teacher asked a student who was identified as a guilty party to say sorry or apologise, and to promise that they would not do it anymore. The interview data showed that usually after telling the students to reconcile, the teachers monitor the students when they return to their classroom to make sure that there is no more conflict between them. This practice showed that the teacher cared for the students in managing their behaviours.

Reconciling or resolving conflicts and disputes is important for positive student and peer relationships. Berndt (2002) highlighted positive students' relationships with their classmates build positive characteristics in the classroom, and decrease conflicts among the students. Thus, a postive peer relationship contributes to a supportive classroom climate. For example, if the students in the classroom have good quality

friendships they will help and support each other, and this will create a supportive classroom climate. On the other hand, if there is a peer conflict in the classroom, the students involved in the conflict will not feel happy and not be motivated to engage in learning (Furrer and Skinner, 2003). Some teachers in the interviews mentioned that sometimes students avoid coming to school because of negative relationships with their peers.

Some class teachers usually sought information when they recognised that their students seemed to create classroom disturbances, causing conflicts with others, or had problems with their academic achievement. Asking the students directly was the way the teachers sought background information from the troubled students. This quotation from teacher T19 is an example of how a class teacher managed students' behaviour in the classroom by seeking the background or the reasons behind the difficult behaviours.

> I found a student who had lots of absences, and I noticed that this student was always absent every market day. I investigated the causes. Firstly, I called him to talk with me. At the beginning I nearly blamed him. I asked him, "Why were you absent every market day?" He replied to me, "I was selling plastic bags in the market. I have no parents anymore. I live with my grandma. I have to provide a living for myself and my grandma." Thus I suggested that other teachers give him special tasks because he couldn't attend the classes regularly. I couldn't forbid him selling plastic bags in the market because he had to earn money to buy food. All of his payments in the school he got free, such as class funding for practical activities. (T19)

Teacher T19 showed that she did not immediately make a negative judgment about the student such as saying that the student was lazy, but she was looking for the reason why the boy was absent every market day. She had never expected before that such a young boy had to work hard to survive while other children at his age still spent their time playing with their peers. By seeking the student's background, the teacher understood the student's difficulties. What this teacher did could be useful for the other teachers to reflect on why students behave inappropriately. This can be viewed as a positive relationship between the teacher and the student (Scheuermann & Hall, 2012, p. 57).

Seeking the background or finding the reasons for students' difficult behaviours is a way to gain more understanding about the students. For example, how students experience their lives at home, whether they have a difficult life or happy life. This

highlights the importance of knowing more about students, their context, and community. Teachers who have good understanding about their students will think about what support might be appropriate for those students. High quality of support will positively influence classroom climate.

In summary, giving advice, asking questions, talking with students, and reconciling were categorised as ways that teachers communicated with students to solve classroom problems. Communication is the key to an effective classroom (Hardin, 2012). It is established through relationships in the classroom such as teacher-student relationships, and peer relationships. The teachers have mentioned the ways they manage students' misbehaviours; however, they have not mentioned anything regarding preventing classroom problems. Efforts to prevent classroom problems might be better than focusing on responding to the problems, so that the teacher will not spend as much time controlling the classroom.

Routines and rules are a strategy in the classroom discussed by the teachers. Some routines and rules mentioned by the class teachers related to classroom cleanliness, school uniforms, punctuality and attendance, and courtesy. Routines and rules are covered in this section because they influence how the teachers managed students' behaviour. In the following paragraphs these types of routines and rules are explained in relation to classroom climate.

The majority of the class teachers mentioned classroom cleanliness as a routine and rule as mentioned by teacher T21 who provided one example:

> I grouped the students in the class to be responsible for keeping their classroom clean. Each group consists of female and male students. If any of them didn't do their job, the other students in the group would report it to me. I reminded the students, and I encouraged them to do their duties and respect what the other students did. (T21)

Students in Indonesia are expected to contribute to school cleanliness so they encourage their students to clean their own classrooms. Here, the students were grouped by the class teacher. They had to clean their classroom, and before 7.30 am and those who have the responsibility for cleaning their classroom, have to be at school earlier. Most schools in Indonesia do not provide their own cleaning service so they encourage their students to clean their own classroom, and each group had to do their job once a week. Teacher T21 was seeking responsibility, care, and respect from her

students. The students who did their job based on the work schedule showed that they respected their peers. These are relevant to Scheuermann's and Hall's (2012, p. 213) suggestion that routines and rules should address safety, respect, and responsibility.

Students need a clean environment to learn because it relates to their health, and gives them a comfortable place to learn. Furthermore, keeping the classroom clean sends a message to be responsible. Responsibility also has an autonomy value which is recognised as a domain of classroom climate (Doll, Spies, LeClair, et al., 2010). This indicates an association between effective routine and a positive classroom climate.

Punctuality and attendance were also covered by routines and rules as discussed by teacher T10:

> For me if there were any students coming late, I would still allow them to follow the lesson, however, I told them that they were absent in the attendance book. It is better to allow them go into the class than hang around and probably they would bother the others. Then I reminded them not to be absent for the following meetings. Similarly, in terms of dressing, sometimes we dress inappropriately, not like teachers, for example wearing tight clothes. Meanwhile, if the children do not dress neatly, they are admonished. So I think such things need to be considered by teachers. (T10)

Teacher T10 highlighted that excluding students who came late was not the best decision, however, they had to know that they were recorded in the attendance book as absent students from the lesson. Some teachers would not allow a student to join the class if he or she came late. This teacher also pointed out that teachers were also expected to be a model for their students, for example in terms of dressing. While this teacher did not mention that teachers should also come on time not only the students, it might be implied.

Punctuality and attendance, also contribute to a positive classroom climate. For example, suppose a class is going on, and then a student comes in late. The late arrival of a student can distract a teacher and disrupt a class. If students come on time, they also have time to prepare themselves to learn. Students who are physically and mentally ready tend to have higher motivation to learn, and this will influence the climate in the classroom. It is argued that rules and routines establish the boundaries for expected behaviour, and when they are consistently applied, they will create a predictable climate for all students in the classroom (Scheuermann & Hall, 2012).

Thus, the existence of rules as foundation for effective classroom management is needed in order to create a supportive classroom climate, (Scheuermann & Hall, 2012).

The class teachers talked about courtesy as a rule or expectation for example:

> So there was a time when they were treated like my children, and as friends. As children, of course, they had to know about politeness rules, and how they had to behave to parents. As friends, they had a chance to joke or play. (T23)

Teacher T23 believed he had a close relationships with his students. However, he wanted his students to understand their position. He expected the students to respect the teachers including through showing politeness. In the past, teacher and student relationships were not very close. There was a strong hierarchical structure. Today, teachers seem to be more flexible. Therefore, many students do not feel hesitant to talk to their teachers. However, there are still some teachers who want to show their authority. This quotation is another example of courtesy:

> Before I started teaching I made a commitment with them that they would not talk, discuss or chat while I was explaining or talking. Likewise, when one of them was speaking to the class, they should not talk because it was impolite. If they wanted to express their opinions they had to do it in turns. They could not do it together because their voices couldn't be heard. Sometimes outside their classroom, they romped, and they accidentally hit a teacher who was walking. The other teachers considered that it was rude. Once, when I was in the class, I advised them not to behave so. (T16)

Teacher T16 asked for a commitment to listen to others who are talking as a routine and rule including when a teacher is talking. This teacher was teaching her students how to behave when somebody else was talking. This is one way to respect other people. She also guided her students how to express their opinions in an appropriate way. Implicitly, this teacher conveyed character education, and also prepared the students for their real life when they grow up and join the adult community.

With regard to courtesy, it exists in relationships including teacher-student relationships, and peer relationships as a part of routines and rules. When students behave well and politely, their peers and teachers will be happy, and this situation will create friendship. Friendship is a variable in a positive classroom climate. Courtesy contains a respect value that is critical in relationships. In relation to this, Hardin (2012, p. 51) claimed that having positive relationships with students can be a solution to many problems relating to classroom disciplines and managing student behaviour.

In summary, routines and rules are not the only ways used in managing students' behaviour, but they influence teachers' strategy in managing students' behaviours. Giving advice, asking questions, talking with students, and reconciling were categorised as other ways that teachers communicated with students to solve classroom problems. Communication is the key to an effective classroom (Hardin, 2012). It is established through relationships in the classroom such as teacher-student relationships and peer relationships. The teachers have mentioned some ways to manage students' misbehaviours. However, they have not said anything regarding preventing classroom problems. Efforts for preventing classroom problems might be better than focusing on responding to the problems, so that the teacher will not spend too much time controlling the classroom.

5.2.3 Group Work as a Teaching Method

There were no specific questions asked in the interviews with class teachers which were directly associated with teaching methods or group work. However, class teachers talked about some different teaching methods such as individual work, with group work the most frequently mentioned. Based on the teachers' explanations, I concluded that the teachers had two main reasons for implementing a group work. Some of them implemented group work purposely, because they wanted to establish positive peer relationships among the students in the classroom, and promote social development. Some of them explained how groups were formed, and whether the teachers created groups for their students or let them form their own groups. It also covers the use of group work is for a practical reason, because sometimes the number of the text books that students have to use was not enough. To make it sufficient for all of the students in the classroom, the teachers asked them to work in groups. Others used it for both reasons.

This is an example of the purpose of giving a group work to students as mentioned by teacher T11:

> Usually the same group would be used twice so that this would allow them to have better team work. They would be getting close each other. In the group work, they learnt how to socialise with others who have different characters or personalities. If they are not accustomed to socialising with different people, in the future they will have difficulties because they will be in society. For example, when I was still a small kid, I was familiar with different types of people. Thus, I don't have any difficulties working with different people. I don't want my students to find difficulties in the society. (T11)

Teacher T11 explained she used group work to encourage the students to work together. She wanted to foster a close relationship among the group members. She believed that through team work, the students would practice how to work with other people in their society. This teacher appeared to believe that how to socialise with other people needed to be taught since it influenced students' social development, and this could be done through group work.

Another example of giving group work to students was explained by teacher T14:

> It depended on the situation of the class. Sometimes I asked them to form their own group. But I found it a disadvantage allowing them to choose their own group. Some students only include their best friends in their group. Teachers know the capability of each individual student. Therefore I consider that it will be better if the teachers decide the groups in order to equalize the capability of the groups. For me, creative students should be mixed with passive students or the weak students. This will enable the weak students to get assistance from their creative peers, and they will get to know and understand the lesson. Thus they will not feel that the work is very hard for them. (T14)

Teacher T14 appeared to prefer creating the groups for the students since she considered that capable students tended to include other capable students or their best friends. Only sometimes did he allow students to form their own groups. This teacher assumed that mixed ability groups promoted learning where the weak students could get assistance from the capable students so that they would not feel that the classroom activities were too hard for them

These were the examples of the group work as a technique:

> I was directing the students to form their groups, including the number of the members in a group. But they themselves formed their groups. If I created the groups for them, they usually protested. If I divided the groups based on their names on the attendance list, they usually disagreed. So I just determined the number of the groups, the number of the members for each group, and there had to be boys and girls in each group. They could choose the members whom they felt comfortable with. The most important thing was that they felt comfortable with working with the people in their group. If they felt comfortable, they wouldn't be noisy, and they would be happy in their learning. (T23)

Teacher T23 gave students the opportunity to create their own groups. He also assumed that students would engage more in learning when they were grouped with peers they were happy with. Giving a choice to students can be viewed as fostering students' autonomy where it requires students to be responsible. Responsible students will follow classroom rules and avoid difficult behaviours. In terms of students' autonomy,

this teacher did not mention it. This teacher also assumed that it was necessary to combine boys and girls in a group perhaps because the boys tended to be disruptive.

Teacher T1 gave an example of giving group work to students:

> Usually there were 10 students for each group. It depends on the number of the balls that we have. If we just have 2 balls, it means that there will be only 2 groups, for example male group and female group. So it depends on the available tools or equipment. (T1)

Teacher T1 engaged students in group work because of facility or equipment limitations. This also shows that the teacher was creative. Teachers who can utilize limited existing facilities effectively demonstrate that they are effective and well organised teachers. Rather than demanding more facilities from their schools, they tend to think about how to make the limited existing facilities work for all students, for example, using group work effectively. Many other teachers in Maros Regency junior high schools also underwent similar experiences to this teacher's experience. Some schools in this regency have been equipped with sufficient facilities, usually those in urban areas, but some others have not.

This is another example of giving group work to students as explained by teacher T21:

> Usually a group consisted of 4 or 5 people. Sometimes I grouped them based on their name listed in the roll book. Sometimes I did it randomly. So the group members were not always the same. If they formed their own group, usually they would pick the same persons, just their best friends. Sometimes they disagreed, "Miss, our houses are located far from each other.' I told them that if they didn't live close to each other, they could do their group task at school for example in the library during the break time. (T21)

Teacher T21 wanted her students to work with different people every time they had group work. Therefore, she used different ways of forming the groups such as based on their names, their chair position and so on. This enabled students in the classroom to work with all peers; and by doing so, close relationships among the students would be fostered.

Effective group work will contribute to a positive classroom climate. When teachers group students that consist of capable and less capable students in a group, the capable students can assist the weak students, and share knowledge with the others. Besides, in group, students learn how to be tolerant and respect others who have different opinions and socialise with other people. In relation to this, Hardin (2012) highlighted that it was important to build a classroom community where students valued each other

and worked together cooperatively. Students also learn how to be responsible with their work. Literature in this field has highlighted that not only is group work an applicable way to learn a topic, but it also impacts on students' interpersonal skills development (Barker, Quennerstedt, & Annerstedt, 2013).In addition, group work can be developed as effective cooperative learning. Anderson, Hamilton and Hattie (2004) highlighted that cooperative learning creates a supportive classroom climate.

5.3 Domains that Support Positive Teaching Practices and Classroom Climate

When I ran the analysis using NVivo software, firstly, I wanted to look at the categories or themes that would emerge as the highest percentage of coding. This would indicate that many teachers considered them as important domains. Secondly, I looked at the references of the coding to see how many teachers interviewed talked about the domains. Hence, I would be able to identify the important themes or categories. Lastly, I grouped them into three: the teaching practices that promote the development of a positive classroom climate, the domains that support a positive teaching practice and classroom climate, and the domains that hinder a positive teaching practice and classroom climate. The first category has been discussed in the previous section, the second category is discussed in this section, and the the third category will be discussed after this section. In this section, the domains that support positive teaching practices and classroom climate including school-home relationships, assumptions about intelligence and academic capabilities, assumptions about mental health, teachers' pedagogies, peer friendship, and self-determination that were discussed by the teachers.

5.3.1 Positive School-Home Relationships

This section is about teachers' relationships with students' parents or guardians. Positive relationships between school and home will influence teachers' practices. Teacher T2's discussion showed positive relationships between teachers and students' parents. Teacher T2 explained her positive relationship with her student and the student's parent:

> Their response was good. They felt glad, 'Miss, thanks very much for letting me know that my child did not get to the school.' So the parent did not know that her child rarely came to school. Another student that I visited was because she was sick. Her parent was very glad when we visited her, "Miss, thanks very much

> for visiting my daughter." Their house was very far from the school, and I was taken by one of my students. He offered me a lift using his motorcycle, "Miss, I could take you to her house because I know the place. The access to go there was quite hard. The roads were not smooth but rough." When I went back, the parent gave me a whole chicken (laughing). (T2)

Teacher T2 mentioned her relationships with the student and the parents. This teacher appeared to have two reasons for visiting students' home or parents. She visited the parent because the student had a school attendance problem. The teacher wanted to let the parent know and talk about the solution. Not all parents have a home phone number or contact number, especially those who live in a remote area. In Indonesian culture, face to face communication is considered a more polite and effective way than other ways such as phone lines and emails. When we want to talk about something very important, it will be more respected if we use face to face communication. I consider that this is a reason why many teachers still use 'visiting parents' as a preference. Another reason for teachers to visit students' home is because they wanted to give social and emotional support for example when a student got sick, and it was a manifestation of her care and respect for the student. When she visited the student's home which was located far away with challenging roads, the parents could understand that the teacher cared for their daughter so that they gave something to the teacher to appreciate the teacher's visit. This was an expression of respect from the parent, and they might also feel that the teacher respected them.

Another example of a positive relationship between teacher and students' parents was mentioned by teacher T22:

> The parents responded positively when visiting their homes. Usually we did home visits when the parents did not come to school after mailing them a few times, and the attitude of the child did not change. Home visits were necessary because such students' attitudes can influence other students. Suppose a student who had many absent days was promoted to the next class level, then it could have an effect on the others. (T22)

Teacher T22 perceived that it was important to do home visits in order to solve the students' attendance problem together with the parents. In most schools in Indonesia, students' attendance is one criteria of being promoted to the higher class. Many schools in Indonesia require their students to attend the school not less than 80% of the time. Thus the class teachers feel worried when any of their students have an attendance problem. In terms of the parents' attitudes, the parents welcomed the teacher's visit. This may indicate that teacher T22 showed a trusting relationship with the parents and

vice versa. The parents may view that teacher's coming was to help their child to solve his or her problem at school.

Teacher T9 mentioned another way of conducting teacher and parent relationships:

> At the time of promoting the students to the higher class level, the parents were invited to come to school to receive their children's Report Books. It was an opportunity for teachers and parents to talk about the children's behaviours like truancy, and bullying such as asking money from their friends by force. The students, whose parents did not come, will not be given their Report Books. In addition, if the students had a problem, their parents would be mailed. After mailing them three times, but they still did not come to school, we visited their home in order to discuss the children's problems. (T9)

In most schools in Indonesia, when students receive their academic report books, they have to come with their parents or guardians. The reason is the class teachers need to explain to the parents or guardians about their children's academic progress as well as their attitudes at school, and asked for their involvement to support their children's learning at home. For many class teachers, it is the appropriatte time to communicate with the parents in person since not all class teachers have time to do a home visit. On the other hand, not all parents or guardian come to school when they receive an invitation from the school to talk with their child's class teacher. Teacher T9 can be considered as a caring teacher who provided time to visit her students when they have attendence or behavior problems.

To sum up, when teachers show care, trust, and respect to parents, the parents will probably feel comfortable, happy, and have positive feelings about school and their children's learning. Thus, they might increase their involvement such as helping their children with their homework, motivating their children to learn and attending their classes, as well as behaving well to others. The teachers' comments show they see positive relationships with parents as valuable. Parental involvement can positively influence students' motivational constructs, for example, school engagement, intrinsic and extrinsic motivation, autonomy, self-regulation, and mastery goal orientation (Gonzalez-DeHass et al., 2005, p. 100).

5.3.2 Teachers' Teaching Pedagogies

With regard to teachers' teaching pedagogies, the teachers pointed out some important aspects. For example, they mentioned the need to link the lesson to the students' real contexts. The teachers were aware that it is important to make the lessons interesting.

They suggested evaluating the lesson contents and the students' academic progress. Also, the teacher claimed that it was important to have Moral Education as occurred in the past. They argued that one reason why there were many disruptive students in the class was because there was no longer any Moral Education subject.

In terms of evaluating or assessing students, the teachers, for example, asked their students to write a summary of the lesson, write an essay, do homework, and do the worksheets. Some teachers also said that they assessed not only the students' cognitive aspects but also non-cognitive domains. These aspects will be explained.

The need to link the lesson to the students' real contexts and making the lesson interesting, were discussed by teacher T5. Teacher T5 explained:

> Obviously, we had to be able to teach as the curriculum requested. Therefore, personally I had to keep learning because I had to give examples. The examples had to be real, such as when the material taught regarding relationships or social contact, I had to provide them an example of what 'relationships or contact' meant, and so on. Hence, the students would understand the concept fully. Teachers have to be able to provide contextual examples, not only depend on text books. What we found in the text books, we still had to develop. (T5)

Teacher T5 appeared to believe that teaching by contextual learning was very important because it would help students to link the lesson to their real lives. Hence, students will see that the lesson was meaningful, and therefore would be more motivated to learn. Teacher T5 also believed teachers should be creative in developing their lessons and the need to update their knowledge for example, in terms of content pedagogies.

Another quotation highlighted the importance of making the lessons interesting is discussed by teacher T12:

> Just use interesting teaching methods. Suppose the material could be displayed in drama, then it would be interesting. For example, for the social science subject, there was a topic regarding the proclamation of Indonesian independence. Therefore I asked the students to work on a drama. It enabled all of the students to be active and it was interesting for them. (T12*)*

Teacher T12, a social science teacher, assumed that drama is an effective way to engage students in their learning. Drama is one example that can be implemented for a social science subject. Also, it enables all students in the classroom to actively participate. Besides, this method leads students to learn more deeply and be creative.

When students want to perform a drama, firstly they have to learn thoroughly about the topic of the story. In this way, they construct their knowledge.

Some teachers mentioned the need to evaluate their own lesson contents and looked at the students' progress, as mentioned by teacher T19:

> I suggested preparing their teaching equipment, including what they will teach. Afterwards, do an evaluation. Then follow the students' progress, especially for those whose grades are low. (T19)

Teacher T19 highlighted two main things: the need for being well-prepared and evaluating the lessons as well as the teaching methods employed. For many teachers, making syllabus, lesson plans, and lesson material is very hard. Teachers have to create these based on the year levels of the students each semester. Most teachers in Indonesia have to teach 24 hours a week for different year levels in their school. This challenge makes it difficult for teachers to be well-prepared. However, some teachers were aware of the need for being well-prepared and to evaluate their teaching, including whether the lesson meets students' needs and whether the teaching methods are appropriate or not. The importance of being well-prepared has been commonly recognised. Maulana, Opdenakker, Stroet, and Bosker (2012, p.836) highlighted that teachers whose classes were well-structured clearly defined their expectations, formulated consistent rules of behaviour, and helped students in engaging in a task.

To sum up, linking the lessons to the students' real contexts indicate that the teachers were aware of the importance of considering relevant or contextual instructions and making the lessons interesting. Thus, the students would see that what they were learning was relevant to their real world. This way could promote intrinsic motivation to students. Similarly, making the lessons interesting would also promote students' motivation. The literature has suggested the need for teachers to evaluate the curriculum (Hardin, 2012). For example, teachers should evaluate whether the needs of students are met and whether the tasks are appropriate and stimulating for students (Ching Mok, 2005; Hardin, 2012).

5.3.3 Teachers' Positive Assumptions about Intelligence and Academic Capabilities

Teachers had different assumptions about intelligence and academic capabilities. The way teachers view students' intelligence and academic capabilities is very important,

and recognizing students' capabilities and talents is critical to support their learning. The following quotations represent this assumption:

> I found a child, when I was teaching English in Year 7. He just kept silent. I gave him a verbal question, but he did not answer it. I ignored him, in the sense that the students that I usually paid attention to were troubled students who were naughty, and had low academic achievement, and good students. I didn't pay special attention to average ones so that I didn't give special attention to him. So when I was teaching English, he was quiet. He was different from his classmates, so I did not know if he was a smart child. Every time he did a test, he achieved a good grade. I thought he was cheating. One day I accidentally noticed him working on a reading task. Apparently, the boy was good at written tests. Since then, I give him more attention than ever before. Now he's getting smarter. So we cannot directly judge if students are less intelligent simply because they talk less. Luckily it was not too late. I nearly did not develop his talents. Maybe there was another factor that made him unable to communicate well. (T16)

> I have a new student, he moved from another school. Once, I stimulated him by giving a Math question. I saw that the child had an interesting technique in answering the question and seemed to have good capability in analysing a question. Then I thought that this child had the potential to be smart. One day, I invited him to the teachers' room and gave him a number of Math questions to do. He could answer the questions well. I lent him some Math books. Since that time, he began to study Math more seriously. Initially, this child was like the other average students. Then he became more motivated; and now I am preparing him to join a Math competition to represent our school. (T11)

Both teachers T16 and T11 perceived that that it was essential to recognise students' academic abilities and talents. Being quiet does not always mean that students are average. They might have great potential waiting to be developed. These quotations convey a strong message that teachers have to know all of their students very well, and give them much attention to recognise their capabilities and talents. The attention should not only be addressed to the challenging students, and capable students but also to the average and quiet students, otherwise, students may miss out if they are not 'smart' or demand attention.

Recognizing students' capabilities and talents is very important because teachers' practices are influenced by their assumption. This example can be seen in the two quotations from teacher T16 and teacher T11. Their assumption about the importance of recognising students' capabilities and talents might impact on these teachers' practices influences the students' motivation, self-efficacy, teacher-student relationship, and achievement as quoted by teacher T11. These variables influence a

positive classroom climate. Vitto (Vitto, 2003) has made a connection between recognising students' strengths and interests with teachers' high expectations, teachers set high expectations when they see something in students that enable them to achieve more than they have got.

5.3.4 Positive Student Interaction: Peer Friendship

Based on the interview data, I grouped the categories of students' interactions into three categories: friendship, isolated students, and peer conflicts. In terms of peer conflicts, there were five types of conflicts. Since in this heading I focus on positive student interaction, peer friendship is the theme explained in this section, while the other themes will be presented under the main heading of the domains which hinder a positive classroom climate.

The following quotations are the examples about friendship among students:

> I didn't find any students who looked unhappy in my class. In the first days of school, it usually happened. It was because they hadn't known to each other. (T22)
>
> In terms of peer relationships, generally they were also good, as well as their relationships with their teachers. (T23)
>
> Sometimes at the break time I walked around the school to see if there were students in the classroom, and if there were students, what they were doing. I did not find any students who looked gloomy and had no friends in the class. They looked happy with their classmates. (T3)
>
> Obviously my students and I are close and they are also close to each other. We are all close. If there was a particular event, I invited all my class students to take pictures together and eat together. For example, in the Prophet's Birthday in which every class provided some food for the celebration. I invited them to eat together. Sometimes there were students who didn't want to join us, probably because they felt unconfident. I asked them to join their classmates. If anyone didn't get any food, I asked the others to share their food with those who didn't get food. (T5)

Some indicators of peer friendship are care, help and guidance, companionship and recreation (Parker & Asher, 1993). Whether students have friends or no friends, it can be observed in the classroom, in the playground or school yard. When the teacher (teacher T3) observed her students during the break time she found that none of the students looked lonely or without friends which shows that they have companionship indicating friendship.

Through an event, teachers can recognise and build friendship among students. The comment mentioned by teacher T5 was an example. She identified that a few students in the classroom felt shy and seemed to be reluctant to come along when the other peers ate together after the festival. Then the class teacher encouraged them to join their peers enjoy the food together. This teacher built friendship among the students. In relation to a positive classroom climate, friendship is one variable in a positive classroom climate. If students have a good quality of friendship, they will less likely to have peer conflicts such fighting and bullying. The research literature has recognised that a high quality of friendships will be a protective factor against victimisation and bullying (Bollmer, Milich, Harris, & Maras, 2005).

5.3.5 Behavioural Self-Control: Self-Determination

Based on the interview data, there were three categories belonging to student self-control behaviour: self-determination, disruptive students, and emotional students. In this study self-determination is defined as students' capability in managing their own learning, and it is therefore a positive self-control behaviour. In terms of the disruptive student category, it will be explained in the section of characteristics that hinder a positive teaching practice and classroom climate. Furthermore, the category of students with emotional issues will be explained in the heading of teachers' assumptions about mental health. Thus, in this section, I focus on the category of self-determination.

A few of the class teachers mentioned some learning characteristics of students that referred to self-determination or students managing their own learning, an example was mentioned by teacher T10:

> For example, last time this school ran an event, and all students were encouraged to participate. I just gave them some explanation, to the students who were from high class category, about what they had to prepare or make for the event; and surprisingly they really did it perfectly. Besides, they were good at keeping their classroom clean and neat. They cleaned and mopped their classroom floor. Before entering their classroom, they took off their shoes since they wanted to keep their classroom floor clean. Only teachers were allowed to wear shoes in the classroom. They are good at managing themselves including managing their learning. They have very high motivation to learn. Their collaboration is very good. They always show initiatives. Without asking them to do something, they already are willing. (T10)

Teacher T10 argued that students in her class were smart students who could manage themselves on all occasions including managing their own learning. They could take

initiatives about what to learn and what to do. They were willing and had good collaboration with their peers. When they were given a responsibility, they were hard working. In addition, Zimmerman (1989, p. 22) highlighted that learning was not something that happened to students, but it was something that happened by students.

Self-determination is a critical predictor of being successful. If all students have the capability of managing their own learning, teaching will be easier for teachers. However, they do not. Therefore, teachers have to adapt teaching practices that support and enable students to manage their own learning for example, by enhancing positive relationships with them and among them, forstering positive school and home relationships, positively manage student behaviour, and adopt appropriate pedagogy.

5.6 Domains that Hinder Positive Teaching Practices and Classroom Climate

Some domains, important fields, seem to hinder positive teaching practices and classroom climate. Firstly, less positive school-home relationship might negatively influence teaching practices and classroom climate. Secondly, negative assumptions about intelligence and academic capabilities might also negatively influence teachers' teaching practices and classroom climate. Thirdly, teachers' assumptions about students' mental health might influence for example, teacher-student relationships, and peer relationships. Fourthly, consequences and punishment can influence, for example, teacher-student relationships, and learning engagement. Fifthly, less positive students' interaction with peers including isolated students and conflicts can influence for example, their learning engagement. Sixthly, less positive behavioural self-control such as disruptive acts might hinder teaching practices. Seventhly, low students' attendance and motivation can hinder a positive teaching practice and classroom climate. Eighthly, students' difficulties influence their learning engagement and classroom climate. The influences of the eight domains on teaching practices and and classroom climate are discussed.

5.6.1 School and Home Relationships

Positive school-home relationships supported a positive teaching practice and classroom climate, but not all students' parents or guardians had positive relationships with their children's schools. In this section, some examples of negative school-home relationships are explained.

Some teachers mentioned that some parents were not friendly when meeting with them including the example given by teacher T13:

> Sometimes there were parents of students who were less friendly when meeting them, especially when we had just started talking to them. However, after a long talk, they became friendly. Maybe they were concerned with their children at school. Some of them were friendly the first time we met and had conversations. But in general, when we visited them, they behaved less friendly. If I had scored the students twice but the results didn't get the target, I contacted their parents and had discussions about their children's grades and attendances. (T13)

This is about contacting parents when the teacher is not pleased with the students' behaviour and academic results. In Indonesia, educated parents are usually more welcoming and cooperative when they are invited to school to talk about their children's learning or behavioural problems. On the other hand, uneducated parents especially those who live in rural areas, often tend to ignore a school's invitation to discuss their children's problems. Therefore, the class teachers or counsellors will visit them. In terms of the parents' reaction to teachers' visits, some of them welcome the teachers, but others do not. As in the quotation mentioned by Teacher T13, many parents at first were not friendly for their visit. This might be because they were worried in case their children had done something wrong and would receive a punishment. It might be interpreted that parents had low level of trust with the teachers and feared their children would be blamed. It might be also because some teachers made unexpected home visits. This usually happens when the teachers do not have the parents' contact numbers, and the parents live far from the school or the teachers' residence.

Another quotation regarding school and home relationships that hinder a positive classroom climate is discussed by teacher T20:

> Since he was in elementary school, he and his parents had even reported one of his teachers to the police. Also he argued with his class teacher. The student was really temperamental. Obviously, the boy is always supported by his parents whatever he does, for example, he was accompanied by his parents when he reported his teacher to the police. The teachers here work together to control the child's emotions. (T20)

Teacher T20 provided a negative picture of home and school relationships. Teacher T20 mentioned a student and his background before coming to the junior high school. The elementary school teacher who was reported to the police had punished the student and the parents could not accept it. Since similar cases sometimes occur in other

schools in Indonesia. The education system of Indonesia has banned physical punishment for students.

To sum up, negative school and home relationships will not facilitate a positive classroom climate. If teachers want to discuss students' learning difficulties, this will be hard to do because the parents are not cooperative.

5.6.2 Teachers' Assumptions about Intelligence and Academic Capabilities

This section provides discussion about teachers' views of students intelligence and capabilities. In the previous section, teachers' assumptions about students intelligence and capabilities have been discussed in terms of how they support a positive teaching practices and classroom climate. In this section, the discussion focuses more on how these assumptions hinder positive teaching practices and classroom climate.

Some teachers associated students' capabilities with their basic intelligence or IQ, as discussed by Teachers T1 and T20:

> The students in this school still have low motivation. Only children with high IQ here have good motivation to learn. They don't have internal motivation. So overall, they are still a 'standard category' (T1)

> Some students had very low academic capability. Like the boy standing over there, he was diligent to school but his capability was very low. (T20)

Teacher T1 believed that only children with high IQ wanted to learn. This implied that if the students had quite low IQ, it would be hard to motivate them. In the second quotation, teacher T20 said that some students always came to school, but they had low academic outcomes due to their low intellectual capability. Thus, when some students did not want to learn, the teachers associated it with their poor intellectual capability. Both teachers tended to claim that students' outcomes depended on their basic intelligence rather than their efforts. This assumption influences teachers' teaching practices. When teachers do not see the connection between efforts and achievement, they will tend to provide less both instructional and non-instructional supports to their students. Therefore, this teaching practice hinders a positive classroom climate. Effective teachers should convince students that there is a very strong correlation between effort and achievement. In other words, the more effort they put into their learning, the higher achievement they will reach.

Some teachers related students' capabilities to their academic background such as their previous school, as mentioned by Teacher T6:

> Perhaps it was from the students' background, such as students' intake factors, their habits taken from their elementary school. It seemed that if the students' hand writing was bad, when they came to junior high school, their hand writing wouldn't change. (T6)

Teacher T6 associated students' low capability with their previous school. The teacher seemed to blame the previous teachers or the conditions in the previous school. This teacher also said that when students had bad hand writing before coming to junior high school, it would not change. This indicates that the teacher did not understand that by making lots of efforts or practices in hand writing, the students' hand writing would improve. When teachers look at their students' learning capability as something that is already fixed and cannot be improved, they will tend to be pessimistic about students' learning progress rather than evaluate their teaching practices including material and instructional activities, relationships, and support that they provide.

Some teachers related the capabilities of their students based on their school location that is whether the schools are located in urban or rural areas, as explained by Teacher T3:

> I have an experience when teaching in the city. Children in the city, when they were given group work, they competed to each other. They were familiar with providing their argument. But in this school, it didn't occur. Perhaps, it was because they lacked capabilities. The academic capabilities of the students here were flat. Perhaps only one or two of them were prominent. Their ability in communication was still low. (T3)

In this quotation, teacher T3 compared students' capabilities between students in rural and those in urban schools. The teacher viewed that students in urban schools had better academic capabilities than those in rural schools. Implicitly, this teacher wanted to say that students in rural areas were left behind, while the students in cities were supported by many kinds of facilities including facilities in the schools and outside the schools.

To sum up, when teachers label their students in rural schools as incapable students, they will tend to set low expectations (Vitto, 2003, p. 12). It has been mentioned previously that it is critical to set high expectations for students' learning. Setting low expectations will create low motivation of students. This situation will not support a positive classroom climate.

5.6.3 Teachers' Assumptions about Mental Health

This section is about teachers' assumptions about students' mental health that hinder a positive teaching practice and classroom climate. In this study, students' mental health refers to how well they cope with their emotions which influence their learning. The reason for including mental health is that it can influence student relationships with their peers and teachers. For example, students with negative mental health tend to have conflicts with their peers. Also they tend not to follow the class rules.

Associated with mental health, some of the class teachers said that sometimes they had an emotional student in the classroom, as mentioned by Teacher T24:

> If I looked at their characteristics, some of them seemed grumpy, but when dealing with teachers, they did not show it. They only revealed their emotional nature in front of their classmates. (T24)

Teacher T24 said that some emotional students did not show their emotions in front of the teachers, but they did it in front of their classmates. Perhaps, they felt more comfortable with their peers. A further example was discussed by Teacher T7:

> As I said, I was always close to my students when they had a trouble. Also it depends on our attitudes to the students. When the students are in emotional, we shouldn't be emotional. We have to see the situation; we have to know the causes of the problem. We might hold his hand and take him to a quiet place so that the other students and teachers will not listen. Then we should persuade and advise him. (T7)

Teachers T7 stated that she paid attention to her students especially when they had a problem. Teachers T7 assumed that it was important to calm down when facing a student who was emotional. In dealing with a difficult student, the teacher invited the emotional student to talk, gave him advice, and support.

Another example of students with mental health problems was discussed by Teacher T1:

> Last time, she didn't want to join sport activities. Every time she had a sport lesson, she had a headache. Also, physically she looked weak and sluggish. I told her, 'You have to keep moving. If you don't move, you will have a headache. It doesn't matter whether your movement is right or wrong. I want to see you be in the sport square next time. Don't be frown, give a smile.' One of her friends told me that since she had been in elementary school, she used to have headaches in her sport lesson. Therefore, I said to her, 'Next week, you'll start actively participating in the sport lesson. (T1)

As seen in this quotation, it seemed that the student had low self-efficacy in sport subject, and she was unhappy with the subject. In responding this, the teacher (T1) gave her a reminder that she had to join the sport lesson and told the student not to be angry but be happy when joining the sport class. For the student, this reminder might sound very critical and it was unsupportive. In terms of a classmate who gave comments that the girl had used to be sick every sport class might indicate that the teacher talked about the girl's problem with another student and for this teacher it was acceptable. I consider that this teacher should find another more supportive way to approach the student.

This quotation is about a student with mental health issues whose actions were around truancy and bullying:

> He liked playing truant, bullying and did not want to learn. In the class he didn't want to do anything. He'd only get one book. I guessed it was because he didn't get any attention from his parents. This child looked left behind. (T12)

In this quotation, the teacher talked about a student who had misbehaviour and did not want to engage in his learning. The teacher perceived that a student's problematic behaviour was associated with family background such as students receiving less attention from their parents, and some students came from disadvantaged families so that they were quite sensitive and were easily upset by their classmates. However, this teacher did not mention anything referring to her support or to find the solution.

To sum up, students who experience negative mental health such as being emotional usually will have negative relationships with their peers. The students may be isolated by their peers because their peers were not happy with their behaviour. Also, they might have negative relationships with teachers because they tend to break classroom rules, and have disruptive behaviours. Since peer relationships and teacher relationships are two subscales of the classroom climate (the CMS), negative relationships with peers or teachers would hinder a positive classroom climate.

5.6.4 Consequences and Punishment

Researcher seemed to have different definitions of consequences. Some researchers view consequences as a punishment. For example, Hardin (2012, p. 286) defines consequences as the results of a student's behaviour; when the behaviour is inappropriate, the consequences are typically punitive in nature; and this can be a synonym for punishment. Furthermore, Hardin (2012, p. 289) defines punishment as

the application of an unpleasant stimulus or withdrawal of a pleasant reward in attempt to weaken a response.

Giving consequences was another theme related to behavioural management. Most of the teachers used consequences when they wanted to manage their classroom. Many of them saw the use of punishment as a way to control the classroom. The examples of how class teachers managed students' behaviour by giving consequences were discussed by Teachers T2 and T9:

> Yes, a couple of my students behaved so (didn't focus on learning). One of them named AD. I said to her, 'Tomorrow you have to write one page.' I gave her a task to write in one page as a consequence. She said, "Miss, it is too much." Another student liked drawing while his classmates were learning. So I gave him a task, drawing. If the activity was a group work, and needed a drawing, I gave him the job to draw. Sometimes I asked him to help me provide a picture or drawing for my teaching material as teaching media. (T2)

> Firstly, I warned the disruptive students. I asked them to be quiet three times. If they were still noisy, I said to them, "If you still make noisy, I will ask you to answer a question on the board. If you can't answer it, I will ask you to stand up in the front." If we just asked them to be quiet, they wouldn't care. (T9)

The first quotation showed that class teacher T2 tried to use a logical consequence (Hardin, 2012, p. 81) by asking the student who did not focus on learning to write one page about what they learnt in the class at the time. However, it might be better if the teacher had warned them before the lesson started so that the students would not reject the consequence. In the second quotation, teacher T9 mentioned the consequence at the beginning of the lesson. The first consequence seemed to be logical since it still related to the student's behaviour. However, the next consequence seemed not to be appropriate.

We can see from the quotations that the consequences that the teachers applied were seen as punishments by the students. When students look at the consequences as punishments (McDonald, 2010, p. 118), they will not feel happy. If students do not feel happy, they will not be motivated to learn. Consequently, this will hinder a positive classroom climate. In relation to this, Vitto (2003, p. 146) argued that consequences are more effective if accompanied by a positive classroom climate and positive and personal teacher-student relationships, however, he suggested that teachers should rely more on prevention than consequences in effective management of the classroom.

Punishment was also applied by some teachers. Some of the punishment acts seemed to be a light physical punishment, social and emotional punishment, as explained by teacher T10:

> Sometimes I gave the boy a small pinch just as a warning if he was bothering his classmates again, while I was saying to him, “Don’t do it dear, you see your friends are learning but you are bothering them.” He usually disrupted female students. He usually sat behind the girls, and then started bothering them. If he didn’t stop disrupting his classmates, I asked him to take another seat. But if he still didn’t stop it, then I took an action, for example I asked him to stand up in front of the class for quite a long time. (T10)

In this quotation, the teacher adopted traditional punishment by asking the student to stand up in front of the class. In the past, this way of punishment was popular in the Indonesian education system. Today, some teachers seemed to still respond to students’ difficult behaviours in this way. They consider that this type of punishment is acceptable. Some others believe that giving physical punishment is not acceptable anymore. Thus, they give non-physical punishment.

The examples of the non-physical punishment were discussed by teachers T20 and T21:

> I gave them a chance again. If they still didn’t focus on their learning, I would ask them to pick up the trash around the school or go to the library to take dictionaries. (T20)

> Yes, there were some disruptive students in the class. One of them liked annoying his classmates; and he behaved disruptively in all subjects. Probably it was already his basic character to bother other people. Sometimes I threatened him, "If you do not want to stop bothering, I would ask you to leave this class". Usually when threatening him like that, he became silent. (T21)

In this quotation, teacher T20 showed the kinds of punishment that seemed to be unrelated to what the students had done, for example asking students to clean in the school area. Teacher T21 would ask the student to leave the class when he did not want to stop bothering his classmates. For this teacher, this way was effective enough; but it might not work well for other classes or contexts. This was relevant to what Scheuermann and Hall (2012) said, namely, that punitive responses were seldom effective for students who misbehave.

To sum up, the punishments given to students were for example giving a small pinch, asking the students to stand up in front of the class, pulling, and flicking students’ ears. Asking students to stand up in front of the class, pulling and flicking their ears will

make them feel embarrassed. When students experience embarrassment because of being punished by a teacher, they would be more likely to hate the teacher and the subject. This would lead to negative relationships between teacher and students. In relation to classroom climate, teacher-student relationship is a subscale of the CMS. Thus, those practices hinder positive teaching practices and classroom climate.

5.6.5 Negative Student Interactions with Peers

This theme represents what was revealed about the students' interaction from the 24 classes based on the 24 class teachers' perceptions. These students' interactions which hindered a positive classroom climate covered four categories including isolated or rejected students, students who isolated themselves, peer conflicts, and types of conflicts. Many of the class teachers assumed that they had at least one student who was isolated by his or her classmates. Many of them stated that some students tended to isolate themselves and most of them talked about peer conflicts. These are explained in the following paragraphs.

Many of the teachers mentioned that some students were isolated or rejected by their peers, some others tended to isolate themselves. Teachers T4 talked about rejected students:

> Yes, it also happened in my class. Usually it was because the students' academic capability was very low, and they came from a disadvantaged family. I used to give advice to the other students in the class not to isolate their classmates. I told the students that it was not their fault that they were disadvantaged children, so don't keep away from them. (T4)

Some of the reasons why some students were isolated or rejected were for example: they rarely came to school or attended the class, had low academic capability, came from a disadvantaged family, and misbehaved. In addition, rejection used to happen when groups were formed. The quotation conveyed by Teacher T4 showed that weak students who came from a lower economic status background tended not to be welcomed by their classmates. The teacher tried to solve the problem by approaching the classmates and advising them to make friends with peers without looking at their social economic status.

In other cases students isolated themselves for a variety of reasons. The summary from the interviews highlighted the reasons, for example, the students lived away from their parents and came from broken home. Also, they preferred making friends with students

from another class, and lacked due to poor family background. Another reason mentioned was related to students' quiet personality.

One example of a student who isolated himself from his classmates was discussed by teacher T11:

> There are no physically disabled students in this school. But in terms of psychological factors we could find a student who is not healthy. For example, there was a student who didn't want to be friends with others. He kept away from his classmates, and his classmates also kept away from him since his classmates thought that he didn't contribute positively to them. One day I gave him a Math test, but he didn't do it at all. When I noticed him, he started being afraid. I invited his mother to meet me at school. His mother told me that he couldn't accept that his father had left him and married another lady, and went overseas. After I approached a popular student in the class, and told him that the child had a problem and suggested not to keep away from him. I also suggested him to help this boy to be able to make friends with others. Finally this way was successful. Now the child looks cheerful and has many friends. One day he brought me a jar of green beans. He gave it to me in the class, in front of his classmates. He said to me, 'Miss, this is for you.' And I said, 'Thank you. (T11)

Teacher T11 was able to understand the student and make a difference. She found out why the student did not focus on his learning, and why he isolated himself. After knowing the source of the problem, she was able to select a student who was empathetic and a leader. She believed that the isolated student would gradually change if he was approached appropriately.

Most of the teachers discussed the types of students' conflicts such as bullying, fighting, quarrelling, taking classmates' stuff, and not talking to each other because of being angry with each other, as discussed by teacher T7:

> I gave advice to the other students in the class in general. Firstly I gave advice to the students who liked being alone, then I advised the other students in the class. For example yesterday, there was a student crying. I asked her why. She told me that one of her classmates yelled her because her parents were poor vegetable sellers. Then I called the student who teased her as well as the crying student. Initially, he didn't want to confess it. Then he confessed it. Afterwards, I gave him advice not to insult anybody including the girl although her parents were poor vegetable sellers. The boy promised that he wouldn't do it anymore. He asked for an apology. (T7)

There is no a special term for bullying in Indonesian language. Today, the term bullying is already used in Indonesian language and begins to be frequently used. The girl's case as mentioned by teacher T7 is only one example but I assume that bullying

in Indonesian schools frequently occurs. Fortunately, the teacher took an action to cope with the problem. If not, the victim of bullying will suffer for a long time.

> Sometimes boys fought. But once, a boy and girl fought. I said to the boy, 'How come you fought with a girl?' I reconciled them. I said that there should be no revenge between them. Now they made friends again. (T9)

> Commonly, there was a small quarrel in the classroom. Initially they were just joking, but sometimes one of them was a little bit rude so that they had a quarrel. If the quarrel occurred in the classroom, the teacher who was teaching in the classroom would cope with the problem quickly and if they were difficult to reconcile, they teacher used to ask them, “So will you make this as a big problem? If you think so, I will send you to the guidance counsellor. Then the guidance counsellor will call your parents.” Usually, when the students were warned like that, they became quiet and wanted to be friends again. (T6)

The examples by teacher T9 and teacher T6 seemed to be related. For example, fighting, which occurred between a boy and girl was usually initiated by joking or teasing by one of them. Then, one of them did not like it. The teachers reconciled them. The teachers wanted to make sure that the problem would not go on, and no revenge would occur between them. Asking an apology was the common way for teachers in reconciling the students who had conflicts. The following quotations are other examples of students’ conflicts.

> That happened in my class. My class-students, Class VIII_1, were still like elementary students. They still liked being angry with each other, and didn’t want to talk to each other for days. (T1)

This kind of conflict commonly happens. Compared with the other types of conflicts, I assume that this type of conflict is not very serious. However, it creates a negative relationship between peers. This means that there is little collaboration in their learning since people who are not happy with each other will not cooperate.

This is an example of a small conflict that usually occurs in the classroom, as explained by teacher T16:

> The conflict emerged because she lost her pen. Then they became noisy. When they were noisy, they used their local language. I didn’t understand what they were arguing about. I asked them, “What’s the matter?” One of them replied me, “Miss, he took my pen.” I said, “Please return her pen.” After he returned her pen, the class became quiet, because that was the problem. (T16)

Often a boy usually takes a girl’s belonging might be because he wants to attract attention from his classmates including the girl who lost her belonging. It seemed that he wanted to tease the girl. Another reason is that usually such a boy is not prepared

for his lesson including his learning materials. Therefore, he takes his peer's learning tools.

To sum up, isolated students usually do not have good motivation to learn; they do not look happy in the classroom and they get less support from their peers. This negative peer relationship indicates a less supportive classroom climate. In terms of students' conflicts, from the teachers' discussions, how these conflicts influence the climate in the classroom was explained. For example, when a girl lost her pen, and she argued with a boy because the boy took the pen, suddenly the focus of the teacher and the other students switched to the conflict. The teaching and learning activity stopped for a while because of that. These negative student interactions hinder a positive classroom climate.

5.6.6 Behavioural Self-Control: Disruptive Acts

This section focuses on disruptive acts as a part of behavioural self-control which hinders a positive teaching practice and classroom climate. In the previous section, behavioural self-control which focused on self-determination was discussed. Self-determination was discussed separately from this section because it focused on positive behavioural self-control. Some examples from teachers' discussions might represent how some teachers managed or reacted to students' disruptive acts.

Some students were very disruptive in the classroom, and teachers reacted in different ways, as discussed by Teacher T23:

> In the classroom there were some disruptive students. They tended to draw attention, and felt smarter than the others. I often asked them to sit in the front, next to the female students. Firstly, this way was effective. But in the second time, they were acting up again. At the other times, I told them to sit next to me. I would regret it if I asked them to leave the class. Apparently, they looked awkward for acting up if they were sitting next to me. (T23)

Teacher T23 recognised that some of his students created classroom disturbance because they wanted to draw attention from people in the classroom including from their peers and teacher. This teacher tended to find the solution rather than giving punishment to the disruptive students by asking them to sit in the front so that he could easily monitor them. However, the solution that he took was only temporarily effective.

Another example about disruptive students in the classroom is explained by teacher T4:

> I turned my attention to the disruptive children. I pointed them to the front to answer a question on the material being done. If they were scolded, it would result in more severe consequences. Therefore I gave them the question to answer. So the question was relating to the material being taught. (T4)

Similar to the previous quotation, teacher T4 also tended to avoid giving punishment to disruptive students because she thought that it would not be effective. Thus, she gave them questions relating to the current material to answer. However, she did not provide any explanation about how effective this strategy was.

Another example about disruptive students where the teacher responded in more reactive ways as talked about by teacher T3:

> I used to directly talk to the students. I asked them why they did it. Sometimes I got mad a little at them, or usually I immediately said to them, “Open your book and look at this page.” Once in a while, I flicked their ears. I noticed that if we were not tough, the students here would act as they liked. So far, I have been able to deal with the students. If there was a student playing during the teaching and learning process, I would shout loudly at them, “Please pay attention to the lesson.” I explained the lesson for three times, while I kept saying, “Please pay attention.” Finally they could understand it. (T3)

Teacher T3 showed a different approach from the previous ones in dealing with any classroom troubles. It seemed to me that firstly she tried to find the solution by asking the disruptive students to open their book to make them focus on their learning. However, she lost her patience when the troubled students kept distracting the others. Then the punishment such as flicking the students’ ears became the solution. Furthermore, this teacher argued that she needed to be tough, otherwise, the students would act as they liked.

The three quotations showed that disruptive students hinder a positive classroom climate. Some teachers appeared to be patient in dealing with disruptive students, some others did not. Therefore, they applied punishment when they lost their patience in dealing with these students, showing that their teaching practices did not support a positive classroom climate. Associated with disruptive students, a study has recognised that classroom disturbance may be a result of instructional problems (Hardin, 2012, p. 169). Hardin (2012) argued that the more students understood the lesson, the less likely it was that they would be disruptive. Another study has also highlighted that it is important to understand why students do what they want or

understand the reasons behind their behaviours in order to avoid punishment as a way out (Nelsen et al., 2000). This was not understood by these teachers, perhaps by any of the teachers. Thus they were much less likely to be able to develop a positive classroom climate.

5.6.7 Students' Attendance as a Learning Engagement and Motivation in Learning

Students' learning engagement is students' involvement in learning such as their attention on the lesson delivered, participation in doing learning tasks or activities in the classroom, and doing and submitting their homework, including their attendance at school or class. When the interviewed teachers were asked about students' engagement, they talked much about students' attendance and students' motivation. In this section, Motivation is put together with learning engagement because they are different topics but strongly related one another.

Attendance

The majority of the class teachers indicated four main factors contributing to students' attendance. Personal or home issues were most frequently mentioned. Three other factors including subject interest, teacher relationships, and peer relationships were also assumed by the class teachers as crucial factors that might encourage students to come to the school or vice versa as shown in Figure 5.3

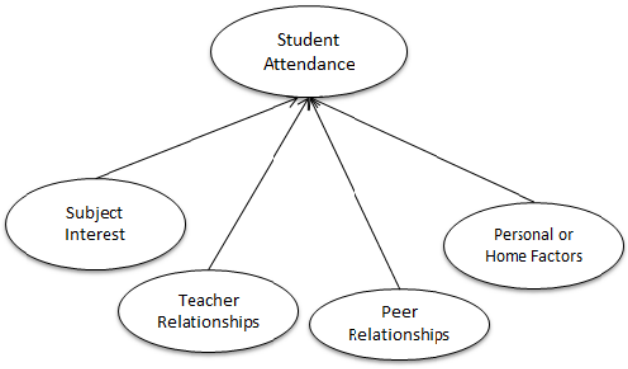

Figure 5.3 Characteristics Influencing Student Attendance

Most of the class teachers mentioned personal or home issues as a main factor contributing to students' attendance at school, as an example, teacher T6 explained it:

> Once, there was a boy in my class who rarely came to school. I asked him why. According to him, his father had passed away, while his mother had no work so that he didn't have money for transport fares. (T6)

Teacher T6 identified a financial difficulty as a reason for a student not coming to school. I guessed that it not only had an impact on getting to school but also on other aspects, for example, he might have low self-confidence when he saw his classmates having recess or lunch in the canteen while he could not afford the food for himself. Consequently, he kept away from the others or did not come to school.

Some of the class teachers who gave comments on students' attendance said that students did not attend at school or class because of subject interest reasons, as stated by teacher T23:

> Others didn't come to school because they hated certain subjects. Probably the ways to deliver the lessons were not interesting for the students. It might be also because they didn't feel comfortable with their classmates. (T23)

This quotation recognised two reasons why some students hated certain subjects and preferred not attending the class. Some students did not join the class because of the ineffective teaching methods and unattractive classroom activities implemented. Another reason was negative relationships with peers.

Some teachers claimed relationships as a factor influencing students' attendance at school, as explained by teacher T9:

> Usually it is because the children don't like the subject. They might feel that the subject is hard or boring. It is also possible that the children don't like the teacher of the subject. Sometimes, a couple of students told me, "Miss, I don't like the teacher because…." (T9)

In this quotation, teacher T9 showed that relationship and subject interest factors were linked to each other. The students might dislike the subjects because they did not have good relationships with the teacher; or because they did not have a positive relationship with the teachers.

Another example of factors influencing students' attendance at school was explained by teacher T22:

> Once, I had a student who had lack of confidence. He didn't attend the school for many days so that I asked his classmates why he was absent. His classmates said that he felt shy and less confident to communicate with them. This student couldn't communicate well so that he felt unconfident. Besides, probably because he had learning problems and came from a disadvantaged family. One day, he was angry and nearly hit his classmates because of some offense. He guessed that his classmates said something bad about himself. But it wasn't true according his classmates. He seemed to be sensitive. He got angry and his

> classmates couldn't accept it. …He joined his friends from other classes who liked playing truant. They liked watching games. (T22)

Teacher (T22) talked about a student who had difficulty in managing his anger which influenced his relationship with his classmates. This student seemed ostracised by his peers in the classroom. Thus, he did not feel comfortable with his classmates. The teacher also mentioned some factors leading this student to be emotional such as lack of confidence due to economic factors. Some students truanted because they were influenced by their peers; they used to go to play-station centres, or the internet shops.

To sum up, many of the teachers said that students did not attend the school or class because of teacher relationship, for example, students were punished when they were absent from the previous lesson, or did not complete their homework. Other examples of teacher relationships were that teachers did not pay much attention to the students and students did not like certain teachers because of the ways they taught and from criticising them. Students felt scared because they thought the subjects were too hard for them. Briefly, negative school-home relationships, subject interests, and negative relationships with teacher and peers will hinder a positive classroom climate.

Motivation

The class teachers mentioned that many students were unmotivated in learning. The reasons for this situation seemed to be various. Many reasons seemed to be associated with teaching methods and classroom management. Other possible causes were health issues, mental health, disruptive students, bullying, insufficient facilities, family background, learning issues, language issues, reading capability, lack of confidence, free school fees, and the national examination culture. The details of these causes were discussed in the sections 'Students' Difficulties, Disruptive Acts, Mental Health and Negative Student Interactions'.

The following paragraphs explain the reasons associated with ineffective teaching methods and classroom management, free school fees, and the national examination culture. Some teachers implied that students were unmotivated in learning as a result of ineffective teaching methods and classroom management. Teachers T11, T12, and T16 discussed this:

> Generally their main obstacle is that they have low interest in learning. There are more students who don't want to learn than those who want to learn. Besides, some students only like certain subjects. (T11)

> In low classes, many students were not active in learning. It was different from the smart classes where the students were very active in learning. (T12)

> Some students said that the teacher was strict and didn't want to understand them. For example there was a teacher of a certain subject who only provided 25 'Student Work Sheets', while there were 30 students in the class. It meant that there were 5 students who didn't get 'Student Work Sheets'. Those who didn't have 'Student Work Sheets', they would be given low grades. The Students said, 'It's not our fault.' We wanted to have it but they had already finished. But the teacher did not want to know about it. For me, it is hard to explain. On the one hand, the students were right. (T16)

Teacher T11 highlighted that there were more students who were unmotivated to learn than those who were motivated, and some students only like certain subjects. Teachers should find out why certain subjects are loved by the students. In the next quotation, teacher T12 argued that students in low classes had low motivation to learn, while capable students had high motivation. This quotation suggests that it is important to consider whether the school wants to make streaming classes or non-streaming ones. The third quotation from teacher T16 indicated an ineffective teaching method and classroom management. Teacher T16 explained that teachers had to understand students' needs including the adequacy of the learning material for all students in the classroom. Teachers also need to have a clear expectation in assessing students' work, and avoid being unfair to students. The three quotations show that teaching practices did not provide effective instructional supports.

Some teachers mentioned that students were unmotivated in learning because it related to free school fees, and the National Examination culture, as quoted by T6:

> In general, the students are not motivated to learn. Probably, the first reason is that they don't pay their school fees. Thus, they don't care for their learning. Another reason is the National Examination culture. The students feel that they will get assistance, namely the answers of the test from a certain party during the National Examination. It is a dilemma. (T6)

Teacher T6 mentioned that free school fees and National Examination culture negatively contribute to students' motivation. According to this teacher, students did not feel responsible for not learning at school because they did not pay the school fees. Furthermore, a negative culture towards the National Examination in which many students could get the answers of the tests before the exams were started. Sometimes some schools or teachers tried to help their students during the National Examination because they wanted to see their students passed the exams, otherwise they would be judged as failed schools.

When students feel that they will get assistance in the National Examination, they will think that there is no point in studying hard since they will pass the exam and get their certificates. This occurs if the students do not look at their learning as a process of self-improvement (Lemlech, 2010), so that they do not have good self-determination in their learning. In relation to classroom climate, self-determination is a subscale of the CMS.

5.6.8 Students' Difficulties

The teachers indicated eight difficulties of students, namely those related to family background, learning, facilities, language, lack of confidence, access to school, financial issues, health and physical issues. Family background, and financial difficulties are strongly related each other, therefore, in the diagram (Figure 5.4) they were put in the same node. Similarly, learning and language issues are also grouped in the same node as shown in Figure 5.4.

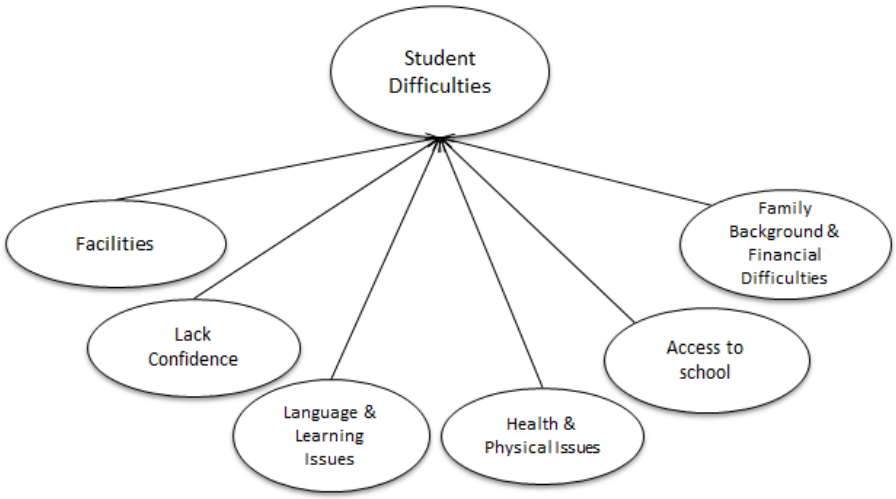

Figure 5.4 Students' Difficulties

The majority of the class teachers perceived that family background and financial issues became sources of students' difficulties. The examples were discussed by teachers T14, T1 and T5:

> Perhaps their parents didn't motivate their children to learn. One day I asked all of the students in the class about their activities every day. Only a couple of them answered that they were encouraged to study by their parents. (T14)

> I think it relates to their family background, such as their parents' encouragement. So the children came to school here, just sat and listened, but there was no motivation. That was what I found in another class. (T1)

> A couple of them had very low economic status. I've just got this information. These students told their friends that they were often absent from science subjects because they didn't have transport fees. Their classmates let the science teachers know because they had been absent many times. I plan to help these children by giving some money to help their transport costs without letting their classmates know. But I haven't talked to these students regarding this case since I've just heard about this information. (T5)

In the first and second quotations, the teachers argued that parents did not provide enough encouragement for their children so that the children did not have good motivation to learn. What teacher T1 said may be correct, but since children only sat, and listened to the teacher, it was possible that there was another factor influencing it, for example, inappropriate teaching approaches and methods. Furthermore, teacher T5 mentioned that students did not attend the class due to their financial difficulties. Financial difficulties and family background highly relate to each other.

Both teacher 14 and teacher T1 perceived that the parents did not provide learning encouragement to their children. It was not discussed why the parents did not encourage their children to learn. I assume that it related to the parents' own awareness of the importance of education that was usually influenced by their educational levels. Furthermore, usually educated people will provide sufficient learning supports such as books and encouragement. On the other hand, usually poorly educated and economically disadvantaged families cannot fulfil these kinds of supports, and this situation will hinder a positive classroom climate. In relation to this, Lemlech (2010) highlighted that the richness of the family environment, rewards, and punishment may influence temperament, personality, and general behaviour. In addition some studies have revealed that children's family background influences their engagement (Gemici & Lu, 2014).

Many of the teachers discussed students' difficulties in terms of language and learning issues, as explained by teachers T3, T17 and T4:

> In terms of language, they found difficulties in understanding the lesson that I taught. Sometimes I taught the same material and the same method in a different class. But sometimes there were students in a particular class who were not interested. It appeared that they were not motivated. After I observed them, apparently students who seemed to be unmotivated were those whose reading capability was not good. Consequently, it was hard for them to understand the lesson. I asked the other students whether they could understand the language that I used. They said that they understood what I said. I also asked them whether I spoke too fast. They said that I didn't speak too fast. Then

> I asked some students to read. In fact, they couldn't read fluently. They still spelled the words. Finally I concluded that the students who were uninterested in my lesson were those who couldn't read well. (T3)

> Generally, the main difficulty of the students is in relation to the Indonesian language. Their local language, Makassar, is more dominant than their Indonesian language. That's why I said just now that if they used their local language in the classroom, sometimes I followed their language. (T17)

> Specifically for English lessons, the students lack vocabulary, conversations and other aspects of the English language. Unlike the students in the city, students here didn't take extra English classes. Thus we had to teach them from very basic ones. Students in urban schools have been able to run, while the students here are still crawling. (T4)

In some areas, students still have challenges in using the Indonesian language. The examples can be seen in the quotations cited by teacher T3 and teacher T17. This case is may be because Indonesian language is a second language for the majority of Indonesian people. In South Sulawesi Province, especially for those who live in rural areas, the use of local languages seems to be more dominant. In the next quotation, teacher T4 argued that it was easier to teach students in cities than those in rural areas. She claimed that students in cities had higher capability. According to this teacher, it was because students in cities regularly took extra classes. I consider that it also relates to the parents' social and economic status as well as their education.

To sum up, Indonesian language is the national language of Indonesia. Therefore, it is used in academic settings. Clearly, when students have difficulties in understanding and using the language, it will influence their learning including motivation and self-efficacy. Teachers' assumptions about students' capabilities in urban and rural schools will influence their expectation of their students. Since they thought that rural students had low capabilities, they would tend to set low expectations. A study has mentioned the importance of teachers' high expectations as powerful predictors of outcomes (Vitto, 2003).

Another challenge of students was lack of confidence, as talked by teacher T1:

> Currently I have a student named NU, she is class VII_4. She doesn't feel confident for always being yelled by her friends. So she rarely participated in sports. Then I said, " NU, don't be like that. You should be confident, keep moving.' Every time she made a mistake in doing the sport, she was laughed at by her friends. Therefore she didn't want to do the exercise. Then I gave her encouragement, "NU, you should come to the sport ground, and not be

> unmotivated to move. The most important thing is that you're in the sport ground, and then you will get the score." (T1)

In this quotation, teacher T1 talked about one of her students who did not feel confident because her classmates always yelled at her during sport activities. If I were the girl, maybe I would do the same thing because everything I did was wrong and I would feel ashamed when people yelled and laughed at me. The teacher tried to encourage her by saying that she had to be confident, and come to the sport ground. I believed it was not sufficient. The classmates should have been told as well that they had to respect others.

It was mentioned by teacher T1 that the student felt unconfident because she was usually yelled by her classmates whenever she made mistakes. This kind of situation creates anxieties and humiliation for any students who experience it. When a student experiences humiliation and anxieties in the school or classroom, it indicates that the school or the classroom is not a safe environment for her or him. Feeling unsafe in the school or classroom will hinder a positive classroom climate.

Facility issues became a challenge for students, as commented by teacher T20 and teacher T21:

> We have a lack of facilities and infrastructure, such as text books. For example for English class, we didn't have textbooks for the students. Therefore, I had to copy the material for them. Lastly, they would reimburse the cost of the copies. I have to bring the copies of the material every week since I can't bring them at once. I had to copy the material because we couldn't expect it from the school. We needed the material for teaching. There is only one book, like this, a book for class 9 focusing on questions for tests. (T20)

> Teachers should be creative. But sometimes the schools' facilities do not support them. For example the school hadn't provided any reference books for my subject. The library had few books for the subject so that I could borrow them and asked the students to work in groups so that the limited numbers of the books would be enough for them. (T21)

Both teacher T20 and teacher T21 said that their schools lacked facilities such as text books. To cope with this problem, teacher T20 copied the material for her students since the library in her school did not provide it. The costs would be borne by the students. On the other hand, teacher T21 encouraged her students to work in groups so that the limited books were expected to cover all of the students in the classroom. It seemed that the school library of the teacher T21 provided more books for students than the school library of the teacher T20 although the number of the books was not sufficient for the students.

In my experience as a junior high school teacher who taught in a rural school, not all students were happy if the photo copy fees were charged to them. If some subjects require them to do so, it will be hard for them. For some students it is not a problem, but for some others it is a problem. Thus, lack of learning facilities will hinder a positive classroom climate.

Health and physical issues were also faced by students as pointed out by teacher T1 and teacher T21:

> Well, probably because her face looks like she has a disability. I thought that she should have studied in a school for children with disabilities. But I keep encouraging her. Thank God, she has shown a little change. (T1)

> It didn't happen to my students. However it happened to other classes. Recently there was a student rejected as a member of a group. Then I asked the students why they rejected her. According to the students, she had to be rejected because in the dancing group, a member could influence the grades of the other members. This child has difficulties moving or dancing because of her weight. I had met the teacher of the dance lesson. I was asking about the child's case. The teacher said that the child could do the dance individually. I felt sorry for the girl. She became more unconfident. The child has few friends. Besides her physical weakness, her academic ability is also low. (T21)

Teacher T1 said that the girl might have a disability. This also might be a reason for why the other students yelled at her. I notice that so far there have been some teachers who usually encourage their students to respect others and accept their weaknesses and I consider that it is the time for every school to promote a safe school environment in which none of the students will experience humiliation. Teacher T21 talked about one of her students who was obese and because of this she was excluded as a member of dancing groups by her classmates. The class teacher tried to solve the problem by talking to the subject teacher; and the teacher said that child could do the dance individually. I consider that the reason for this rejection was relating to the assessment way in which the teacher would assess all of the members of each group the same.

With regard to classroom climate, health is definitely important since it is a primary need. Nobody can learn well if she or he is not fit. Physical issues are also important since they can influence students' self-confidence and self-efficacy as can be seen from teacher T21's comments. The girl who was obese was rejected by her classmates by excluding her from their groups. The peer rejection negatively influences a positive classroom climate.

Many of the teachers assumed that students have difficulties in terms of access to school, as explained by teachers 21 and T2:

> There was a student who rarely attended the school. I went to his house which was located far away from school. This student had to come to school on foot. Besides it seemed that his parents were less aware of the importance of education. The child was often asked to find grass for their cattle. (T21)

> Their house was very far from the school, and I was taken by one of my students. He offered me a lift using his motorcycle, “Miss, I could take you to her house because I know the place." The access to go there was quite hard. The roads were not smooth but rough. (T2)

In this quotation, teacher T21 pointed out that the child did not go to school because he lived along away from the school and he had to come to school on foot. Some resident areas in Indonesia do not have transport access. This is because of where people choose to build their houses based on their preference. Furthermore, the parents asked him to do a job at home such as feeding their cattle. Especially in rural areas, this situation frequently happens. From my experience as a rural school teacher, cases of this kind have decreased since parents’ awareness of the need for education has improved.

Also, the quotation from teacher T2 showed that for some students getting to school is not easy because good transport access is not available. Teacher T2 started understanding the challenge that her student undergoes every school day. If every teacher can understand each student’s difficulties or challenges, they can provide some support. What teacher T2 did can be seen as a kind of social support to her students and fostering close relationships with the student and the parents.

Both quotations reflect difficulties in access to school which impact on students’ attendance at school. This situation is exacerbated by their parents who are not supportive. Clearly indicating that parents’ support for children’s learning is absolutely needed.

5.7 Summary of the Chapter

This summary outlined the main findings of this research question “What teaching practices are used in Maros Regency junior high schools to promote the development of a positive classroom climate?” The results show that there are three domains of teachers’ teaching practices that support a positive classroom climate. These domains are teacher-student relationships, which cover care, fostering close relationships, trust

and respect, managing students' behaviour, and group work as a teaching method. Five aspects support teaching practices and classroom climate are positive school-home relationships, teachers' teaching pedagogies, teachers' positive assumptions about intelligence and capabilities, peer friendship, and self-determination. The results also show several teachers' teaching practices that hinder a positive classroom climate including negative school-home relationships, teachers' less positive assumptions about intelligence and capabilities, teacher assumption about mental health; consequences and punishment, negative student interaction, disruptive acts (negative student self-control behaviour), lack of attendance and motivation, and students' difficulties.

The next chapter will present the analysis of the four classes (the two highest and the lowest scores on classroom climates) where this chapter integrated the data from quantitative (the student survey and teacher rating form) and qualitative analysis (interviews with the teachers).

CHAPTER SIX: THE ANALYSIS OF THE FOUR CLASSES

6.1 Introduction

This chapter presents the analysis of four classes in order to understand relationships between teachers' practices and classroom climate in greater depth. The classes with the highest and lowest classroom scores for classroom climate were identified based on the means of the overall classroom climate survey scores from the 24 classes of the 12 participating schools. From the total Mean score for Classroom Climate (M = 1.80, SD = .30) there were 13 classes with means above 1.80. Two classes in particularly stood out: Fina's class (Mean=2.16, SD= .25) and Mutia's class (Mean=2.12, SD= .27). There were 11 classes, which had means below 1.80. The two classes with the lowest scores were Nara's class (Mean= 1.40, SD= .28), and Wiwik's class (Mean= 1.60, SD= .29). Table 6.1 provides a summary of Mean scores and SDs for all classes. From the selected classes I proceeded to explore differences between these four classes.

In this chapter, I explore the four classes by looking at the perceptions of individual students of each class based on the eight subscales. Then I will summarise teachers' perceptions regarding the classroom climate of their class-students and their own teaching practices.

6.2 The Contexts of the four Classes

This section provides contexts for each of the four classes including teacher's background, students' background, number of students, location, whether the classes are streamed or not, and transport access. Table 6.2 presents the context of the two lowest classes namely Nara's and Wiwik's classes. Table 6.3 presents the context of the two highest classes.

Table 6.1
Total Mean Scores, Standard Deviations, and Streamed Classes of Participating Classes' Classroom Climate

	School and Classroom ID	Means (SD)	Streamed Classes
Classes with mean scores ≥ 1.80	SCH5_VIII.A (Fina's Class)	2.16 (.25)	Yes
	SCH4_VII.B (Mutia's Class)	2.12 (.27)	Yes
	SCH6_VIII.3	1.91 (.26)	Not
	SCH6_VII.2	1.90 (.21)	Yes
	SCH2_IX.C	1.88 (.21)	Not
	SCH9_VII.B	1.87 (.29)	Yes
	SCH7_VIII.C	1.86 (.25)	Not
	SCH4_VIII.B	1.86 (.38)	Yes
	SCH1_IX.3	1.83 (.24)	Yes
	SCH11_VIII.C	1.83 (.25)	Not
	SCH3_VIII.A	1.82 (.31)	Not
	SCH11_VII.C	1.81(.21)	Not
	SCH1_VIII.1	1.80 (.26)	Yes
Classes with mean scores ≤ 1.80	SCH7_VIII.D	1.79 (.23)	Not
	SCH10_VII.1	1.77 (.27)	Not
	SCH3_IX.B	1.75 (.21)	Not
	SCH12_IX.A	1.74 (.22)	Not
	SCH8_VIII.A	1.73 (.24)	Not
	SCH5_IX.A	1.70 (.27)	Yes
	SCH2_IX.D	1.67 (.23)	Not
	SCH10_IX.1	1.66 (.29)	Not
	SCH12_VII.A	1.66 (.23)	Not
	SCH8_VII.A (Wiwik's Class)	1.60 (.29)	Not
	SCH9_IX.F (Nara's Class)	1.44 (.28)	Yes

* The justification for taking score 1.80 to decide high and low scoring classes was based on the Median score of the classroom climate based on classes (median =1.80). Nara's Class was the bottom streaming class. The classes were ordered based on the mean scores.

Table 6.2
The Contexts of the Two Lowest Classroom Climate Classes

	NARA'S CLASS	WIWIK'S CLASS
Location	This school was located in a rural area, about eight kilometres from the town of Maros	This school was located in a rural area quite distant from the town.
Teacher's background	Buginess and Makassaris (two main tribes in South Sulawesi including Maros). 10 years of teaching experience. Teaching English subject. Lived approximately five kilometres from the school	Makassaris 28 years of teaching experience Teaching social science subjects. Lived approximately seven kilometres from the school.
Students' background	Most were Makassaris, came from areas or villages around the school. They came to school by walking, bikes, motorbikes, and public transport.	The students came from different villages around the school and most of their parents worked as fishermen. Many students came to school by bike; some of them rode motorbikes and some walked.

Number of students	26 students, with 7 girls and 19 boys; they were Year nine.	32 students, with 17 girls and 15 boys; they were Year seven.
Streamed classes	The bottom streamed classes. This school streamed classes starting from A to F for year nine for example. The school placed students based on their academic achievement. In many schools in Maros Regency, students were placed based on their academic achievement from their previous school and an entrance test of the current school	This school did not use streamed classes.
Transport access	Public transport for accessing to this school was not very good.	Public transport was available but not frequently used.

Table 6.3
The Contexts of the Two Highest Classroom Climate Classes

	FINA'S CLASS	MUTIA'S CLASS
Location	This school was located in a rural area, but close to the town of Maros. Approximately seven kilometres from Maros town	This school was located in an urban area in Maros (although not the centre of the town).
Teacher's background	Buginess and Makassaris 10 years of teaching experience. Teaching Social Science /Economics Lived about five kilometres from the school.	Buginess 27 years of teaching experience. Teaching Indonesian language Lived about 15 kilometres from the school.
Students' background	Most of the students came to school on foot, by bikes and by motorbikes. The majority of the people who lived in the villages around the school worked as agricultural farmers.	Students in this school came from many different areas so that this school was more multicultural than classes in the other three schools; but the majority of them were Makassaris and Buginess.
Number of students	25 year eight students, with 20 girls and 5 boys	31 Year seven students, with 16 girls and 14 boys.
Streamed classes	This school used streaming. The school placed students based on their academic achievement from their previous school and entrance test of the current school.	Mutia's class was streamed. The school applied streaming classes for some but not for all classes. The first three classes were streamed A to C for each year level. The school placed students based on their academic achievement when students started at the school.
Transport access	Public transport for accessing to this school was not very good.	Good public transport was available for students and teachers

6.3 Students' Perceptions of Their Classroom Climate: Nara's, Wiwik's, Fina's and Mutia's Classes

This section provides a general picture of students' perceptions of their classroom climate. Students in these classes had very different experiences and perceptions within the same classroom. Some experiences and perceptions were positive while others were negative. Table 6.4 presents the frequency of students' perceptions of their classroom climate. There were eight subscales (IWT, KITC, TWP, TC, MT, MC, FCR, and BIM). The items of TWP, TC, MT, MC, FCR, and BIM subscales were coded 0 for never, 1 for sometimes, 2 for often, and 3 for almost always. On the other hand, the items of IWT and KITC subscales were reverse coded: 0 for almost always, 1 for often, 2 for sometimes, and 3 for never. Further, Table 6.5 provides the mean scores of each subscale of classroom climate of the four classes to give more information about the classroom climate of the four classes. Table 6.6 presents the descriptive statistics summary of the Teacher Rating Form results of the four classes to see the students' scores from the Teacher Rating Form and how the class teachers rated them.

Table 6.4
The Frequency Summary of Students' Perceptions of Classroom Climate of the Four Classes

Class	Nara (1XF)	Wiwik (V11A)	Fina (V111A)	Mutia (V11B)
Believing In Me (BIM)				
Often-Almost Always	45%	55%	77%	78%
Never-Sometimes	55%	45%	23%	22%
My Teacher (MT)				
Often-Almost Always	61%	54%	91%	89%
Never-Sometimes	39%	46%	9%	11%
Taking Charge (TC)				
Often-Almost Always	60%	70%	88%	88%
Never-Sometimes	40%	30%	12%	12%
My Classmates (MC)				
Often-Almost Always	51%	58%	81%	81%
Never-Sometimes	49%	42%	19%	19%
Following Class Rules (FCR)				
Often-Almost Always	18%	27%	82%	62%
Never-Sometimes	82%	73%	18%	38%
Talking With My Parents (TWP)				
Often-Almost Always	18%	35%	55%	51%
Never-Sometimes	82%	65%	45%	49%
I Worry That (IWT)*				
Never-Sometimes	60%	68%	77%	75%
Often-Almost Always	40%	32%	23%	25%
Kids in this Class (KITC)*				
Never-Sometimes	33%	61%	92%	83%
Often-Almost Always	67%	39%	8%	17%

The subscales were ordered based on the original order from Doll et all (2010).
% was not used decimal numbers, e.g. 59.60 = 60%. *Reverse coded

Table 6.5
The Summary of the Classroom Climate Means for the Four Classes

Class	Nara (1XF)	Wiwik (V11A)	Fina (V111A)	Mutia (V11B)
Believing In Me (BIM)	1.57	1.62	2.17	2.29
My Teacher (MT)	1.7	1.60	2.33	2.37
Taking Charge (TC)	1.79	1.85	2.27	2.29
My Classmates (MC)	1.58	1.75	2.26	2.21
Following Class Rules (FCR)	1.01	1.27	2.20	1.88
Talking With My Parents (TWP)	0.86	1.77	1.71	1.66
I Worry That (IWT)	1.59	1.82	2.08	2.09
Kids in this Class (KITC)	1.12	1.61	2.39	2.05

Table 6.5 also provides information how the eight subscales of classroom climate in the four classes. The higher the mean scores of the subscales indicates the more positive the classroom climate of the classes based on the subscales. The table displays two classes with the lowest mean scores and the other two classes with the highest mean scores of the 24 classes which will be compared and discussed in this chapter.

Table 6.6
The Descriptive Statistics of Students' Outcomes (Teacher Rating Form) of the Four Classes

Descriptive Statistics						
CLASS		Minimum	Maximum	Mean	Std. Deviation	Variance
Mutia's Class N= 31	Academic Achievement	66	87	77.55	3.81	1 4.52
	Learning Engagement	3	5	4.26	.63	.40
	Prosocial Behaviour	3	5	3.97	.84	.70
	Student-Peer Relationships	2	5	3.84	.93	.87
	Student-Teacher Relationships	2	5	3.90	.87	.76
	My Relationships With This Student	3	5	3.80	.72	.51
Fina's Class N= 25	Academic Achievement	77	88	82.40	3.43	11.75
	Learning Engagement	3	5	3.88	.53	.28
	Prosocial Behaviour	3	5	4.16	.55	.31
	Student-Peer Relationships	3	5	4.04	.35	.12
	Student-Teacher Relationships	3	5	3.96	.46	.22
	My Relationships With This Student	5	5	5.00	.00	.00
Wiwik's Class N= 32	Academic Achievement	65	81	72.66	4.59	21.07
	Learning Engagement	3	5	4.75	.57	.32
	Prosocial Behaviour	4	5	4.78	.42	.18
	Student-Peer Relationships	3	5	4.00	.25	.07
	Student-Teacher Relationships	4	5	4.03	.18	.03
	My Relationships With This Student	3	5	4.88	.49	.24
Nara's Class N= 26	Academic Achievement	76	82	78.58	1.82	3.29
	Learning Engagement	2	5	3.81	1.10	1.20
	Prosocial Behaviour	2	5	3.85	1.19	1.41
	Student-Peer Relationships	2	5	3.69	.88	.78
	Student-Teacher Relationships	2	5	3.62	1.13	1.29
	My Relationships With This Student	1	5	3.42	1.65	2.73

Nara's Class

Many students in this class often worried about their safety at school (IWT). This implies that many students often feel unsafe at school or in the classroom. Also, a large number of students in this class often observed or experienced negative interactions with or between classmates (KITC) (refer to Table 6.4). This implies a high level of conflict and negative interaction between the children. Furthermore, a significant number of students never talked with their parents about homework, school work or difficulties at school (TWP). This indicates a significant number of students did not receive much parental support and encouragement for their learning. Since parents have an important role as co-educators any lack of support or encouragement for their child's learning is likely to undermine their motivation and engagement. Generally students want to know more about the things they learnt in the class. They think they worked hard; and they learn because they want to, not just because the teacher told them to (TC). However, a number of students thought they had little if any say in what they were learning in class (TC). This infers that their curriculum does not connect well with their lives and aspirations.

Many students appeared not to have close reliable friendships with classmates (MC). Friendships with classmates were fragile and provided limited support for a number of students. Next, relationships with teachers were problematic for a number of students in this class (MT). The teacher-student relationship is critical for student learning and wellbeing since a problematic teacher-student relationship undermines learning, engagement, help seeking and motivation. Moreover, many students in this class did not regularly follow class rules (FCR). Classroom management is a major problem for this class. Given that many students often worry about their safety in class, lack of compliance in following class rules will be escalating these fears. Lastly, many students in this class were not at all confident that they could successfully complete work set in class (BIM). This implies that many students are lacking in self-efficacy. This may be undermining their motivation and effort.

Wiwik' Class

Students in this class also have very different experiences and perception of the same classroom, for example, many students in this class often worried about their safety at school (IWT), thus implying that many students often felt unsafe at school. Next, many

students in this class often observed or experienced negative interactions with or between classmates (KITC). This indicates a quite high level of conflict and negative interaction between classmates. Similarly to Nara's class, a large number (refer to Table 6.4) of students never talked with their parents about homework, school work or difficulties at school (TWP) implying that a large number of students did not receive much parental support and encouragement for their learning. Generally students wanted to know more about the things they learnt in the class. They thought they worked hard and they learnt because they wanted to, not just because the teacher told them to (TC). However, a number of students thought they had little say in what they were learning in class. As with students in Nara's class this implies that their curriculum is irrelevant to their lives and aspirations.

Some of the students appeared to have close reliable friendships with classmates, but some others did not (MC). Relationships with teachers were positive for some students, but less positive for some others in this class (MT). The teacher-student relationship is critical for student learning and wellbeing, since, positive teacher-student relationships support learning engagement, help seeking and motivation. For those students who had poorer relationships with their teachers, this could negatively impact on their learning.

Many students in this class did not regularly follow class rules (FCR). This implies that classroom management is a major problem for this class. Given that many students often worry about their safety in class, lack of compliance in following class rules will be escalating these fears. Lastly, some students in this class were confident that they could successfully complete work set in class but some others were not at all confident (BIM). Many students are therefore probably lacking in self-efficacy which may be undermining their motivation and effort.

Fina's Class

Similar to the previous classes, students in Fina's class also had very different experiences and perceptions of the same classroom. For example, many students in this class often worried about their safety at school (IWT) although the number was not as large as those in the two previous classes. This implies that some students often felt unsafe at school. Furthermore, a small number of students in this class often observed or experienced negative interactions with or between classmates (KITC).

Compared to the other three classes however, this class appeared to have the lowest number of conflicts in the classroom. Some students often talked with their parents about homework, school work or difficulties at school, while others did not (TWP). It would seem, therefore, that many students did not receive much parental support and encouragement for their learning. The majority of the students in the class wanted to know more about the things they learnt in the class. They also thought they worked hard and they learnt because they wanted to, not just because the teacher told them to (TC). However, some students thought they had little say in what they were learning in class. For example, some thought what they were learning in class would only sometimes help them outside of school.

Most of the students appeared to have close reliable friendships with classmates, but some of them do not (MC). The majority of the students in the class appeared to have positive relationships with teachers (MT). Most of the students in this class regularly followed class rules (FCR). It appears that classroom management is not a major problem for this class. The majority of the students in this class were confident that they could successfully complete work set in class (BIM). This implies that the majority of the students showed high self-efficacy which contributed to their motivation and effort.

Mutia's Class

With regard to students' anxiety level, many students in this class often worried about their safety at school (IWT). The percentage was almost the same as that in Fina's class (approximately 25%). Next, a quite small number of students often feel unsafe at school. Also, a quite small number of students in this class often observed or experienced negative interactions with or between classmates (KITC). Some students often talked with their parents about homework, school work or difficulties at school, but some others did not (TWP). From the responses, it seems that about half of the students do not receive much parental support and encouragement for their learning.

The majority of the students in the class wanted to know more about the things they learnt in the class and learnt because they wanted to, not just because the teacher told them to. They thought what they were learning in class would probably help them outside of school (TC). Most of the students appeared to have close reliable friendships with classmates (MC). The majority of the students in the class appeared to have

positive relationships with teachers (MT). Some students in this class regularly followed class rules, although some others did not (FCR). The majority (78%) of the students in this class were confident that they could successfully complete work set in class (BIM) implying that the majority of the students showed high self-efficacy.

6.4 Comparing the Four Case Studies

This section provides comparisons between the four classes. The summary of the comparisons is presented in Table 6.7. Based on the summary in Table 6.7, the four classes will be compared in five main themes including teacher relationships, managing students' behaviour, curriculum and assessment, positive school-home relationships, and peer relationships. Thus, teachers' practices in these five areas of the four classes will be looked at in more depth.

6.4.1 Teacher Relationships

It was mentioned that Nara, Fina and Mutia asked the students about their problems or difficulties and lives outside of school, and provided support. However, it was not mentioned whether Wiwik asked the students about their difficulties. The three teachers' behaviours indicated that they cared for students and provided support for them. Furthermore, when students receive a message that they are cared for, they will think of themselves as important individuals (Vitto, 2003). The teachers' behaviour in this respect can be seen as effective teaching and it reflects the literature which highlights that understanding students' characteristics, providing students with positive and constructive feedback, monitoring their progress and attending quickly to their needs were some components of effective teaching (Cooper & McIntyre, 1996; Kyriacou, 2009).

Nara and Wiwik mentioned that they recognised their students' interests and strengths. On the other hand, Fina and Mutia did not mention that they recognised their students' interests and strengths. Recognising students' interest and strengths is essential because it can be a starting point for a teacher to set expectations for students, for example teachers often set high expectations when they can see that their students have high interests and capabilities or they may set low expectations when they see that their students have low interest and capabilities (Vitto, 2003). In relation to this, it is important for teachers to help their students build their self-efficacy and the belief that they are capable of achieving the expectations.

Mutia and Wiwik mentioned that they were not harsh towards their students. Although claiming to believe that teachers should not be tough towards students, Wiwik herself applied punishment to students even though she disagreed with the idea of being harsh towards them. Asking students to stand up in front of the class was acceptable to her. In the past, in Indonesian education culture, it was common for teachers to be strict in response to students' behaviour. Traditional teachers assumed that students would not break school or classroom rules if they were tough on them. However, the research literature indicates that 'get tough' responses to students' misbehaviour were not the most effective ways to create positive classrooms (Scheuermann & Hall, 2012, p. 173). This is relevant to Fina's statement that the punishment that she applied such as asking students to stand up in front of the class was not an effective way. However, she indicated she was confused about how to manage challenging students as well those who did not want to do their homework and study well. Fina did not talk about being harsh towards students while Nara mentioned the importance of being tough on students who often misbehaved.

Fina and Mutia spoke about the importance of teacher self-reflection to evaluate their weaknesses. On the other hand, Nara and Wiwik did not mention it. The literature highlights that teachers who want to evaluate their own behaviour critically, learn new skills, and make necessary changes are an attribute of effective teachers (Vitto, 2003, p. 21). Furthermore, Wiwik, Fina and Mutia mentioned that they treated students equally. It was not mentioned whether Nara also treated students equally. Moreover, Mutia said she talked privately to her students when they had a problem. Regarding this point, Vitto (2003, p21) mentioned another trait of effective teachers namely that teachers accept children who are different without reservation. Also, treating students with mutual respect will prevent misbehaviour (Vitto, 2003).

From students' perspectives, students in Wiwik's class showed the highest number of students with poor relationships with other students (46%) followed by Nara's students (39%). Furthermore, most of the students in Fina's class had positive relationships with their teachers (91%). The number of students who had less positive relationships with teachers was very small. Compared to the other three classes, this number was the smallest.

To sum up, from students' perceptions, Wiwik's and Nara's students appeared to have poor relationships with their class teachers. Wiwik perceived herself to care for her students. She also mentioned treating her class students equally, recognising students' interests and strengths, and fostering positive peer relationships. Associated with students' perceptions of poor relationships with their class teachers (Wiwik), this might be because of the punishment applied by her. Wiwik, however, believed that she was not tough on her students. From students' perceptions, punishment might be perceived as a very strict act and probably unfair. Wiwik seemed not to realise that asking students to stand up was a punishing behaviour. She may have thought she had negotiated the consequences in advance and that the students understood this. Nara appeared to care for her students and provided personal and instructional support. For example when students did not understand how to do a task, she sat next to the students and gave them individual assistance. Also, when a student was often absent because he had to work in the evening, Nara encouraged and assisted him so that he did not drop out from the school. This indicated that Nara cared for her students and supported them. The question is why many of her students perceived that they had a poor relationship with her? Perhaps it links to Nara's belief that being tough towards students was necessary when a class was hard to manage like hers.

6.4.2 Managing Students' Behaviour

Nara and Fina used encouragement for improvement such as praise and good marks; Wiwik used encouragement to learn by giving students an example of a consequence of not having good education; and Mutia used encouragement to increase her students' learning efforts to increase their academic achievement, and improve their behaviours. It is very important for teachers to hold a belief that students can change and learn better behaviours (Vitto, 2003). Thus, they will provide encouragement and support for their students. Furthermore, Fina said that students were encouraged to collaborate in their group. Wiwik stated that each member had responsibility to answer a question. Mutia mentioned encouraging her students to share, and help each other. Similarly, Nara explained that students were encouraged to help others who need help. Briefly, the four teachers encouraged their students to cooperate and help each other. This indicated that these teachers encouraged the development of social skills in their students. Students need to learn to cooperate with people so that they will enhance

their social development. Social development has been recognised as an important educational outcome (Kyriacou, 2009, p. 9).

Fina mentioned that teachers should be a model for students in terms of their own behaviour, for example to be disciplined, while Nara, Wiwik, and Mutia did not mention about this. It can be said that everything teachers do will be a model for their students. For example, when teachers respect students, the students learn how to respect other people. Conversely, when teachers apply punishment, the students also learn the same thing. Thus, although teachers often do not realise that they are a model for their students, their students model their own behaviour on them. Regarding the importance of being a model for students, the literature highlights it as a basic principle of behavioural interventions, and teachers' behaviours are predictive of student behaviour (Scheuermann & Hall, 2012; Vitto, 2003).

Nara and Wiwik mentioned they used threats, warning, cross questioning/interrogation, giving advice, forced apologies and extracting promises not to repeat the behaviour. Mutia asked for clarification, talking privately, persuading, and giving advice. Fina also asked for clarification and gave advice but she did not talk privately or use persuasion. In Indonesia giving advice, forced apologies and promising to be better behaved in the future are parts of Indonesian culture. Parents and teachers are people who usually give advice to their children or students as well as reconciling children who have a conflict and insisting on better behaviour in the future. Furthermore, giving students advice can be seen as a caring expression.

Nara and Fina asked students to stand up in front of the class when they misbehaved such as being disruptive in the classroom and not completing homework. Wiwik also mentioned asking students to stand up in front of the class if they did not do their homework, but not for managing disruptive behaviours in the classroom. After giving a punishment to students, the class teachers achieved reconciliation with the students by asking them to promise not do the same thing. On the other hand, Mutia mentioned that she avoided giving punishment to students. From Nara's, Wiwik's and Fina's points of view, asking students to stand up in front of the class was seen as a way to motivate students. They might think that by using shaming and embarrassment such as standing up in front of the class, students would be motivated to learn and behave better. When students were punished because they did not complete their homework,

they might think that they were not capable and might feel discouraged. It has been mentioned in the literature that it is important to have positive perceptions of personal capabilities such as " I am capable" because it will empower them to learn, while discouragement will reinforce misbehaviour (Nelsen et al., 2000; Scheuermann & Hall, 2012).

It was mentioned that Wiwik and Fina negotiated class rules and consequences. On the other hand, Mutia and Nara did not mention whether rules and consequences were negotiated. Research has revealed that one challenge of creating a positive classroom climate is the difficulty of maintaining discipline (Wubbles, 1985). In order to maintain classroom discipline, the literature suggests that students should also be involved in setting rules in the classroom, for example by negotiating the class rules and consequences. In addition, Vitto (2003) highlighted that consequences would be more effective if accompanied by a positive classroom climate. Therefore, it would be better if teachers relied more on prevention, for instance by creating a supportive classroom climate, than by consequences (Scheuermann & Hall, 2012; Vitto, 2003).

Nara, Wiwik, and Fina involved a guidance counsellor about attendance problems. On the other hand, Mutia rarely involved the guidance counsellor unless the problem was very serious and could not be managed by herself. In Indonesia, especially in South Sulawesi Province, when students have an attendance or behavioural problem, the class teacher of the students is the first person who should manage the problems. If she or he cannot deal with it, then the case goes to the school counsellor. Other teachers who find such a problem will report it to the class teacher of the students similar to what Nara, Wiwik and Fina did to the students who did not belong to their class students. It was different from Mutia in which she tried to deal with the problem even though the students were not her class students.

From students' perspectives, most of the students in Nara's and Wiwik's classes did not regularly follow class rules. Different from Nara's and Wiwik's classes, in Fina's class, most of the students in this class behaved well. They regularly followed class rules. Compared to the other three classes, this class had the highest number of students who behaved well followed by students in Mutia's class. To sum up, the fact that most of the students in Nara's and Wiwik's classes did not follow class rules regularly might be related to the students' poor relationship with their teachers.

6.4.3 Pedagogies: Curriculum and Assessment

Nara, Wiwik, Fina and Mutia frequently gave their students group work. Wiwik and Mutia mentioned that each member of a group had responsibility to answer a different question indicating that they used structured group tasks. On the other hand, Nara and Fina did not mention anything indicating that they used structured group tasks. Furthermore, in group work, Mutia and Wiwik gave roles to group members while Nara and Fina mentioned that they did not assign roles to group members. Giving students roles such as a leader indicated that the teachers were teaching social skills. Allowing students to choose their own leader for their group (as Wiwik and Mutia did) can provide opportunities for developing a social skill. Working in groups facilitates students' understanding about citizenship and responsibility (Lemlech, 2010, p. 60).

Associated with student assessment, it was not mentioned how the four teachers assessed individual work. In relation to group work, the four teachers used group level assessment in which they not only assessed the results of their work but also the process such as students' cooperation or collaboration. Lemlech (2010, p. 70) suggested that evaluation needs to include the product, learning process, and changes in student behaviour.

In terms of teaching methods, Fina preferred addressing questions as a pre activity for her lesson. In this activity, students were expected to master their previous learning material. Students who could not answer the questions well would be asked to stand up. This consequence had been negotiated with students in the class. Nara included the students' mother language when teaching them English because she wanted to make her students easily understand the lesson as well as to encourage them to learn English as a foreign language.

From students' perspectives, Nara's and Fina's classes had the highest number of students with low self-efficacy and self-determination (autonomy) in learning indicating that many students in this class had difficulties with their work. On the other hand, most of the students in Fina's and Mutia's classes showed high levels of autonomy indicating that only a small number of them had difficulties with their work.

To sum up, a possible reason that many students of Nara and Wiwik had difficulties with their work might be related to teaching methods and approaches to discipline used by the teachers who taught in the two classes. Therefore, it is essential that teachers

evaluate their teaching methods as cited by Mutia, who was the only teacher who mentioned evaluating her methodology. She said that teaching methods had to be evaluated and when they were not appropriate to learners' learning styles or characteristics, the methods had to be changed.

6.4.4 Positive School-Home Relationship

Nara, Wiwik, and Mutia mentioned that they visited parents or guardians when they were concerned about their children. Both Wiwik and Mutia asked for the involvement of the parents or guardian to deal with a specific problem by increasing their supervision of their children. Nara did not mention whether she asked for parent involvement to deal with a problem or not, but said she provided support to her students when it was necessary. Furthermore, Fina also made a contact with parents when there were problems by inviting parents or guardians to school, but it was not mentioned whether she asked for their involvement to deal with the problem or not. In addition, Fina mentioned that it was not her job to visit students' parents or guardians but it was a counsellor's job. In summary, teachers visited or invited parents or guardians to school when students had behavioural problems, and some teachers asked for the parents' involvement to deal with the problems. This was an indication that teachers (school) had a positive relationship with parents. However, it would be a good idea if the relationships not only focused on students' misbehaviours but also considered their learning progress. By doing this, teachers (school) would have a chance to ask for parents' involvement to provide support for their children's school work. The importance of parental or family involvement has been recognized to contribute to students' school success (Scheuermann & Hall, 2012, p. 27).

From students' perspectives, most of the students in Nara's class never or only sometimes talked to their parents about schooling and school work. The number of the students in Wiwik's class who often talked to their parents about schooling and school work was also very small (approximately 35%). On the other hand, the largest number was in Fina's class, followed by Mutia's class.

6.4.5 Peer Relationships

Mutia mentioned seeing a student who did not want to make friends with his/her classmates. Wiwik mentioned seeing students who were frequently lonely, worried, and unhappy. Fina explained that bullying and teasing often took place between her

students especially from other classes. On the other hand, Nara did not mention seeing students who were frequently lonely, worried, or unhappy, but she mentioned one of her students was less accepted by his classmates. Vitto (2003, p.4) highlighted that a positive classroom climate required emotionally safety, and that fear and anxiety had a negative impact on student learning.

From students' perspectives, most of the students in Nara's class often observed or experienced negative interactions with or between classmates and in Wiwik's class many often observed or experienced negative interactions with or between classmates. This number was less in Mutia's class. While in Fina's class only few students often observed or experienced negative interactions with or between classmates, the smallest number compared to the other three classes.

Based on students' perceptions, many students of Nara's and Wiwik's classes appeared not to have close reliable friendships with classmates. For Nara's class, the number reached half of the total number of the students in the classroom, and for Wiwik's class, the number was close to half. On the other hand, the opposite perceptions were evident in both Fina's and Mutia's classes where most students reported having close reliable friendships with classmates. In relation to students' anxiety, many students of Nara's and Wiwik classes mentioned that they are often worried in the class. On the other hand, in both Fina's and Mutia's classes, most students said that they never or only sometimes worried.

Comparing students' and teachers' perceptions, there was a link between what Mutia and her class-students said where which they referred to a very small number of students who had conflicts with others in the classroom. Similarly, Fina preferred talking about conflicts in other classes. It might be because the number of conflicts in her class was very small, and it might also be a minor conflict such as students teasing each other. Thus, she preferred mentioning students' conflicts in other classes. Interestingly, Nara had different perceptions from her students in which she recognised only one student who seemed not to be accepted by classmates, while most of her class-students said they often observed conflicts in the classroom. Furthermore, associated with students' anxiety, most of the students in both Nara's and Wiwik's classes said that they often felt worried in the class, and most of them indicated that they did not have positive close relationship with classmates. Wiwik's perceptions

were similar to her students' perceptions. In summary, mainly in the two low classes, the students did not feel safe in their own classrooms, and according to their reports, the classroom climates in these classes were less supportive. Conversely, in the two high classes, most of the students feel safe in their classroom consistent with their overall perceptions regarding their classroom climate as positive.

Table 6.7
Teaching Practice Comparison among the Four Classes

Themes	Nara's Class	Wiwik's Class	Fina's Class	Mutia's Class
Teacher Relationships	Asked students about their problems or difficulties and lives outside of school.		Talked with students about things unrelated to their lesson; went around the school at break time.	Asked students about their problems or difficulties.
		Recognised her students' interests and strengths.		
	.	Fostered close relationships	Fostered close relationships by saying to students that in class they were like siblings.	Fostered close relationship by encouraging capable students to help the others. Togetherness was a priority.
			Told students that she played a parental role.	Mentioned that students were treated equally and talked privately
	Mentioned being tough on students who misbehaved	Mentioned approaching students, not scolding them frequently, not being tough on them.	Believed that embarrassment would change students' behaviour.	Approached students during lesson hours and outside the classroom, and not tough on them.
			Mentioned teacher self-reflection	Used self-reflection to evaluate instructional weaknesses
	Perceived class was hard to manage.		Perceived class was easy to manage and had close peer relationships.	

	Supportive e.g. individual assistance in learning activities.			Supportive e.g. personal or social assistance.
Managing Students' Behaviour	Believed different classes required different classroom management.			Believed children had different learning styles.
	Encouraged students with praise for good marks.	Encouraged learning with examples of consequences of not having good education, as well as opportunity to get scholarship for those who learn well.	Encouraged improvement with praise for good marks	Used encouragement to increase learning efforts and to increase academic achievement, and improve behaviour.
	Encouraged students to help others	Believed each class member had responsibility to answer questions.	Students encouraged to collaborate in groups.	Students encouraged to share, and help each other.
			Teachers should be a model for students	
	Questioning/interrogation, warning, reprimands and giving advice.	Threats, questioning/interrogation, and giving advice, forced apologies and promising not to do it anymore.	Asked for clarification and gave advice.	Asked for clarification, talked privately, persuaded, and gave advice.
	Asked disruptive students to stand up in front of the class.	Students to stand up in front of the class for not completing homework. No punishment applied to disruptive students, only asked classmates to ignore them	Punishment (standing up in class).	No punishment strategies mentioned.
	Referred to guidance counsellor re attendance problems	Referred to guidance counsellor re attendance	Referred to guidance counsellor re attendance	Rarely involved guidance counsellor except for very serious problems that she could not manage.

	.	Negotiated rules and consequences regarding homework.	Negotiated class rules and consequences regarding homework and tests.	
Curriculum and Assessment	Did not assign roles to group members	Assigned roles to group members	Did not assign roles to group members	Assigned roles to group members
		Used structured group tasks		Used structured group tasks.
	Group level assessment (for group work)	Group level assessment (for group work)	Group level assessment (for group work)	Group level assessment (for group work)
	Teaching English by mixing it with students' mother language	Some subjects not loved by students because they thought the subjects were hard. Less moral education	Addressing questions or quiz as a pre-activity.	Teaching methods were evaluated.
Positive School-Home Relationship	Visiting parents or guardian to inform them about their children's case. No mention if their involvement was required	Visiting parents or guardian to inform them about their children's case. Asked for their involvement to deal with problem	No mention of contacting parents unless there were problems, no mention of request for involvement to deal with the problem.	No mention of contacting parents unless there were problems, no mention of request for involvement to deal with the problem.
Peer Relationships		Noticed students who were frequently lonely, worried, and unhappy.	Mentioned that bullying and teasing often took place amongst her students.	Mentioned a student who did not want to make friends with his/her classmates.

6.5 Summary of the Chapter

This summary outlines the link between students' perceptions of their classroom climate and the teaching practices of their class teachers. In the next chapter, the main findings from Chapters Four, Five and Six will be discussed. At the beginning of the chapter, the final model of the classroom climate will be presented. The results of the factor analysis, association between classroom climate and academic achievement, learning engagement, and prosocial behaviour, as well as the characteristics that influence the three outcomes will be discussed. Teaching practices that support a positive classroom climate will also be discussed.

CHAPTER SEVEN: DISCUSSION

7.1 Introduction

This chapter presents a synthesis of the findings from the quantitative and qualitative analyses, and discusses them in the light of the literature and personal experience as a junior high school teacher in Maros Regency, South Sulawesi Province, Indonesia. This study specifically focused on the classroom climate in junior high schools in Maros and its association with learning engagement, prosocial behaviour, and academic achievement, and the teaching practices that influence a classroom climate including students-teacher relationships, behavioural management, peer relationships, teacher assumption (about students' intelligence and capabilities, and students' difficulties) and teachers' pedagogies. The analysis and findings have been presented in Chapters Four, Five, and Six.

The final model of how classroom climate (students' perceptions) and teachers' practices (teachers' perceptions) influence students' outcomes (learning engagement, prosocial behaviour, and academic achievement) is shown in Figure 7.1. The model in Figure 7.1 shows classroom climate in general on the top. Under the classroom climate there are 'Students' Perceptions (the ClassMaps Survey)' and Teachers' Perceptions on their teaching practices. Both the ClassMaps Survey (from students' perceptions) and teaching practices (from teachers' perceptions) cover classroom climate in general. Teachers' perceptions cover two main themes namely teachers' behaviours and peer relationships. With respect to teachers' behaviours, some subthemes are identified: teacher-student relationships, behavioural management, pedagogies, teachers' beliefs and attitude, understanding students' needs and background. In figure 7.1, both the main themes and subthemes are not shown in order to make the diagram simple.

Compared to the initial model in Figure 2.1, based on my research findings, the final model shows a change. The initial model of classroom climate showed an association between classroom climate (the ClassMaps Survey) and learning engagement. In the final model, an arrow does not link the ClassMaps Survey (students' perceptions) to

the learning engagement variable indicating there is not a direct association. The arrows from the ClassMaps Survey go to the other two outcomes indicating direct associations. The arrows show one direction since this study merely looked at how the classroom climate based on students' perceptions (the ClassMaps Survey) influenced the three outcomes. It did not look at how the three outcomes influenced the classroom climate based on students' perceptions (ClassMaps Survey).

With regard to teaching practices influencing a classroom climate, the arrow directions in Figure 7.1 did not change from the initial model. In general, the variables of teaching practices in Figure 7.1 are classified into two groups, namely teachers' behaviours (teacher-student relationships, classroom management, teaching and learning practices or pedagogies, teachers' beliefs and attitudes, and understanding students' needs and background), and peer relationships where these variables influence the three outcomes. How the outcomes influence the teachers' behaviour and peer relationship variables was not considered, therefore the line is not bi-directional. Bi-direction arrows between the variables of teaching practices (based on teachers' perceptions) and the classroom climate based on students' perceptions indicate that they have bi-direction associations. Moreover, the learning engagement, prosocial behaviour and academic achievement showed bi-direction arrows, which linked one outcome to another outcome. Further, the associations of the variables in Figure 7.1 will be discussed in this chapter.

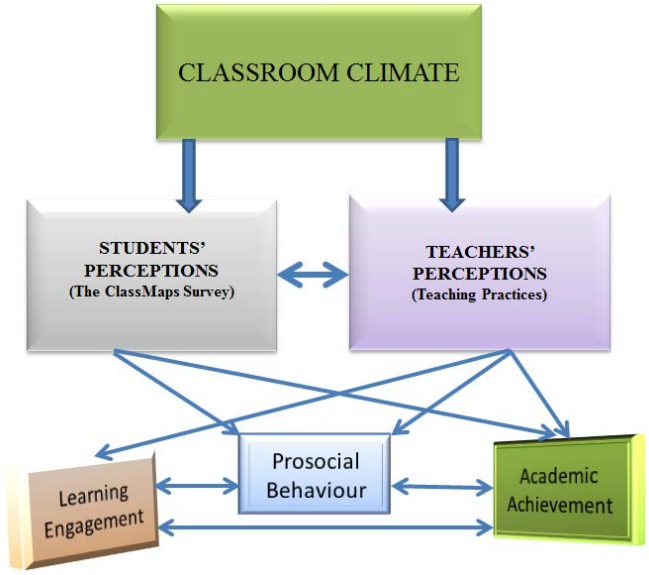

Figure 7.1 The Final Model of the Classroom Climate

7.2 The ClassMaps Survey (Students' Perceptions)

The output indices from the factor analysis were consistent with those reported by Doll, Spies, LeClair, et al. (2010). In terms of the internal consistency, Cronbach's alphas of the eight subscales in my analysis ranged from .60 to .85 showing significant internal reliability of the subscales, compared with those from Doll, Spies, LeClair, et al. (2010) who reported ranges from .79 to .92. While some of the values I obtained were below .70 (.60 to .66). They were still acceptable (Field, 2013).

Similar to the findings of Doll, Spies, LeClair, et al. (2010), there were considerable cross-loadings between Believing in Me (BIM) and Taking Charge (TC). Three items from BIM matched the TC subscale better than the BIM subscale. However, all of the three items were retained on the BIM subscale since the junior high school students in Maros Regency might have difficulties in distinguishing the concept of self-efficacy (BIM subscale) and self-determination (TC subscale) (Doll, Spies, LeClair, et al., 2010). The pattern coefficients were >.30, except for three items. One item from My Teacher (MT) subscale was "My teacher thinks I do a good job in this class". Two items from BIM subscale were: "I know that I will learn what is taught in this class", and "I expect to do very well when I work hard in this class". The overall eigenvalue accounted for 42.47% of the total variance. To sum up, in relation to the ClassMaps Survey, the factor analysis using Principal Component Analysis provided evidence that the eight subscale ClassMaps Survey was an appropriate measure with which to examine students' classroom climate in an Indonesian context.

7.3 Classroom Climate, Academic Achievement and Other Variables

In this study, academic achievement was the most recent students' General Point Average (GPA) of the semester ranging from 10 to 100 (see Chapter Three). Academic achievement was used as an outcome, and classroom climate as a predictor. A clear association was found between classroom climate and achievement, the more positive classroom climate in the classroom, the higher the academic achievement of the students. This finding supports previous research indicating that classroom climate is a good predictor of academic achievement. For example, Baek and Choi (2002) revealed a positive relationship between classroom climate and academic achievement where teacher support and affiliation were perceived as the most important domains.

LaRocque (2008) found that when students perceived their classroom climate as more difficult, they tended to have lower academic achievement.

The results of the HLM analysis provides evidence that other contextual factors (variables) also contribute to academic achievement for example learning engagement, prosocial behaviour, the ratio of girls to boys in the classroom, year level, streamed classes, teachers' years of experiences, and student-teacher relationships. Each of these contextual factors is discussed with respect to its relevance to classroom climate in the following subsections. How student-teacher relationships influence academic achievement will be discussed in a later section.

Learning Engagement and Prosocial Behaviour

Learning engagement and prosocial behaviour significantly influenced academic achievement, students who engaged well, obtained higher academic achievement ratings than less engaged students. This finding supports research by Klem and Connell (2004) and Singh, et al. (2002) who found that learning engagement variables influenced students' academic achievement. With respect to the significant influences of prosocial behaviour on academic achievement found in the current study, students with high prosocial behaviour showed a pattern of lower academic achievement. This finding was in contrast to Caprara, et al. (2000), and Malecki and Elliot (2002) who revealed that students with higher prosocial behaviour had higher academic achievement.

The Ratio of Girls to Boys

The quantitative results of the HLM analysis indicated that the ratio of girls to boys in a classroom influenced the academic achievement of all students through their learning engagement, the more girls in the classroom, the better the overall academic achievement of the students in the classroom was. With reference to the literature this might be because girls usually had a better focus on learning for example, they focused more on task completion (Baek & Choi, 2002), while boys tended to create disruptive behaviours in the classroom, and paid less attention on their learning tasks. When the number of girls in the classroom is larger, it is possible that teachers are able to manage the classroom more effectively because they do not need to spend more time managing classroom disruption. There was supporting evidence from the analysis of the four classes, as in Nara's class where the ratio of boys was higher (boys = 19, girls = 7).

This class indicated the least positive classroom climate of the 24 classes. From the interview data, the class teacher mentioned that most of the students in this class were the least capable students compared to other students in other classes of the school, and many students in this class liked creating classroom ddisruption. On the other hand, Fina's class where the ratio of girls was higher (girls = 20, boys = 5) indicated the most positive classroom climate of the 24 classes, and the class teacher (Fina) mentioned that this class had the most capable students at the school.

Year Level

The finding of this current research also indicated that year level positively contributes to academic achievement. The higher the year levels of the students, the higher their academic achievement. In Indonesia, students' academic achievement is expected to continously increase as their year level goes up so that they have an increased chance of entering a good university or institution. With regard to classroom climate, I did not run analysis to look at whether students' classroom climate becomes more positive as their year level increases, but Table 6.1 provides some indication that as year level increases, students' classroom climate became less positive. This indication was relevant to a research finding of LaRocque (2008) who revealed that the higher year levels of students tended to have lower scores of classroom climate.

The academic achievement scores provided by the class teachers are the average achievement from all subjects recorded in individual students' academic book reports. Usually teachers of different subjects created their own tests for their subjects so the Class Teacher Rating Form for academic achievement rating was not from standardised tests. For example, often teachers who taught at year nine were pressured by their school not to give students low scores otherwise they would fail in the national examination since the grades from their teachers would be added to their achievement from the national examination (during the period of this research, the national examination was the main criterion of whether a student would pass or not).

Streamed Classes

Streamed classes indicated a significant influence on academic achievement. This positive influence might be because schools tended to place the best teachers to teach in the streamed classes, and students in these classes had high self-directed learning. A study found that high ability classes perceived higher teachers' support compared

with mixed ability classes (Maulana et al., 2015). With respect to a positive classroom climate, the best teachers might understand better how to build positive relationships with students, including personal relationships and instructional relationships so that they could provide sufficient support for their students. In terms of self-directed learning of the students, it relates to self-determination of the students where it is one subscale of the classroom climate instrument (the ClassMaps Survey). Briefly, these characteristics of the teachers and students indicate that streamed classes influence academic achievement.

7.4 Classroom Climate and Learning Engagement, and Other Variables

In this study, learning engagement was indicative of students' involvement in learning such as their attention on the lesson delivered, participation in doing learning tasks or activities in the classroom, and in doing and submitting their homework. In this study, classroom climate was used as a predictor and learning engagement as an outcome. The quantitative findings of this study did not indicate an association between classroom climate and learning engagement. In contrast, Doll, Spies, LeClair, et al. (2010) and Wolf and Fraser (2008) found a significant association between classroom climate and learning engagement. The significant association between classroom climate and learning engagement was also supported by a series of studies for example, by Ryan and Patrick (2001), Anderson et al. (2004), and Patrick, Ryan and Kaplan (2007).

The insignificant association between classroom climate and learning engagement in this study might be because in this research teachers more favourably rated their students' learning engagement than the students did (Wahyudi & Treagust, 2004). For future research, it may be important to get more detailed data about students' learning engagement (as an outcome) from teachers' as well as students' perspectives. Thus, the two perspectives can be compared. Another reason might be related to the ratio of boys in a classroom. For example, based on the four class analysis, students in Nara's class, the lowest scoring classes for the CMS and streamed classes, with more than boys than girls, and the presence of misbehaving boys (FCR subscale) indicated that their learning engagement (TC subscale) was the lowest of the four classes. In contrast, in Fina's class, the ratio of boys was smaller than girls, and this class was streamed.

Thus, the students in this class indicated the most positive classroom climate and better learning engagement than the other classes (TC).

In addition, insignificant association between classroom climate and learning engagement can be due to how learning engagement was measured. As mentioned in Chapter 3, learning engagement had only 1 item and based on teacher report. Ideally, each scale should consist of multiple items, and should involve student report.

The quantitative results of this study also provided evidence that student-teacher relationships, student-peer relationships, academic achievement, and prosocial behaviour influenced student learning engagement. These variables belonged to student level. For class level, the year level of students, and the ratio of females in the classroom were significantly related to student learning engagement. Each of these characteristics will be discussed with relevance to classroom climate, and will be linked to the interview data results. In terms of the ratio of females to males, it has been discussed in the previous section.

Teacher-Student Relationships

Teacher-student relationships are covered as a subscale in the ClassMaps Survey (CMS). In terms of the student-teacher relationship from the teachers' perceptions, the relationship relied on personal relationships between teachers and students, while instructional relationships were not covered. There was a possibility that the insignificant association between classroom climate and learning engagement might also be influenced by instructional relationships (Wang & Holcombe, 2010). Instructional relationships might be seen as teacher behaviour. A study revealed that teacher behaviour was a predictor of students' outcomes including learning engagement (Sutherland, Lewis-Palmer, Stichter, & Morgan, 2008).

Supportive instructional relationships might be built by well prepared learning tasks, and interesting classroom activities that promote high learning engagement. For example, teachers could design appropriate contents and activities for effective cooperative learning, and involve available digital technologies to support students' learning (Brunvand & Byrd, 2011; Good & Brophy, 2000; Kember, 2000; Lemlech, 2010). Well prepared and interesting instructional tasks might encourage students to enjoy learning and feel that the learning tasks are meaningful for them, intersting, and manageable. Associated with good preparation of instructional tasks, it is recognised

as a lesson structure referring to how teachers organise their lessons to facilitate students' learning. The lesson structure also refers to the provision of clear expectations, in which teachers let the students know what they are expected to achieve from their learning. The lesson structure also covers how teachers behave to students and provide help for them (Maulana, et al., 2015). Thus, students will trust and respect the teachers leading to a positive relationship between the teachers and the students. As a result, a supportive classroom climate will be fostered.

In relation to instructional relationships in Maros junior high schools, based on interview data with the teachers from the two highest and lowest score classes, none of the teachers mentioned such teaching methods explicitly nor the importance of making lessons fun and interesting. However, some of the teachers mentioned that they encouraged their students to find certain learning material from the Internet (T2, T18, and T20). Thus, I assume that many teachers still tended to use a knowledge transmission approach particularly as it appeared that many of the teachers focused mostly on drills and practice worksheets, the kind of teaching methods that have been claimed to provide very little cognitive engagement (Pintrich, Marx, & Boyle, 1993, p. 168). As mentioned previously, teaching approaches and methods influenced students' engagement, and students' engagement impacts on classroom climate. Students who engage well in the classroom tend to contribute to a positive classroom climate.

In terms of teaching methods, many teachers in the interview mentioned that they used group work although it was not mentioned how often they applied it. It appeared that some teachers were aware of the relevance of giving students group work such as for building close peer relationships, and developing social skills, but others were not. They mentioned that they applied group work due to insufficient learning facilities for example, inadequate text books and sports equipment. Their idea to use group work can be viewed as a positive starting point towards a more student-centred approach rather than teacher-directed. However teachers need more understanding of how to prepare for effective group work for example designing lesson materials that enable students to collaborate. Providing collaborative or cooperative work to encourage students to explore, experiment and be creative will enable students to engage more in the classroom. The activities will lead students to work more autonomously and foster positive peer and teacher relationships.

Student-Peer Relationships

Student-peer relationships appear to make a significant contribution to learning engagement. This finding was similar to previous studies that revealed positive association between peer relationships and learning engagement (Berndt, 2002; Furrer & Skinner, 2003; Wentzel, 2003; Wentzel et al., 2004). Nara's class can be taken as an example (based on the four class analysis). In this class peer relationships were less positive, and as a result of this, many students of Nara's class had high levels of anxiety. The data from the Class Teacher Rating Form also provided evidence that some students had low learning engagement and less positive peer relationships. These negative peer relationships might influence the less positive classroom climate in Nara's class. It is possible that students with negative relationships with their peers might not want to support each other in their learning.

Academic Achievement

Another finding from this study was that academic achievement influenced learning engagement. There has not been much published research on the association between academic achievement and learning engagement. Commonly, research has focused more on how learning engagement has contributed to academic achievement (Singh et al., 2002). The current study indicated that academic achievement influenced learning engagement. In one respect, this finding is contrary to Marks' research findings (2000) who revealed that prior achievement did not show a significant contribution to learning engagement for junior high school students, but was a significant contribution for elementary school students. The significant influence of academic achievement on learning engagement might be related to students' self-efficacy in carrying out their learning activities suggesting that academically capable students would be more motivated learners since they believed that they could do it. This is supported by Pajares (2003) who revealed that students' self-confidence influenced their motivation in completing learning activities and their outcomes in the activities. In addition, self-efficacy is a subscale of classroom climate (the CMS). When students had good academic achievement from their previous school or year level, they might have good self-efficacy in their current learning. It is clear from this study that having positive self-efficacy contributes to a supportive classroom climate.

Prosocial Behaviour

This research indicates that prosocial behaviour influences learning engagement. In the CMS, teacher relationships and peer relationships are two subscales of classroom climate. Prosocial behaviour's effect on learning engagement has been highlighted in the literature. For example, a caring environment shown by teachers' and peers' support for each other may promote prosocial behaviour (Wentzel, 2003). Students who are in a caring environment will value each other, and students who perceive that their work is valued will engage well and strive to succeed (Rogers & Renard, 1999; Wang & Holcombe, 2010). In relation to classroom climate, a classroom with caring teachers and peers who respect each other will create a supportive classroom climate.

Year Level

The CMS questionnaire analysis indicated that the higher the year-level of the students, the lower their learning engagement. This finding is supported by Martin (Martin, 2007) who found that older students (in middle high schools) indicated less motivation and engagement than students in lower levels. Marks (2000) also supported this current finding that students' learning engagement declined as year levels increased. However, Dorman (2008) revealed that students who were at a higher year level (year level 12) perceived higher scores with respect to student attachment, interactions, cooperation, order and organisation, and individualisation. In contrast, Ryan and Patrick (2001) found students' engagement (and motivation) tended to be stable from year seven to year eight although their social efficacy increased when they became the oldest students in the school. Associated with classroom climate, students at lower year levels usually tended to follow class rules, and create less disruption in the classroom and when students follow class rules they can focus more on learning tasks (following class rules is a subscale of the CMS).

The Ratio of Girls to Boys

The ratio of girls in the classroom was positively related to students' learning engagement. The more girls in the classroom, the higher the level of learning engagement was. This finding is supported by Martin (2007) and Marks (2000) who found that girls indicated higher levels of engagement than boys did. The discussion of the influence of the girl ratio variable can also be seen in the previous section (see Classroom Climate and Academic Achievement, and Other Variables).

7.5 Classroom Climate and Prosocial Behaviour, and Other Variables

Supportive teacher and peer relationships and following class rules are three subscales in the CMS, which contribute to a positive classroom climate. In this study, prosocial behaviour was defined as students' following class rules and was used as an outcome, and classroom climate as a predictor. The quantitative findings of this study indicated a positive association between classroom climate and prosocial behaviour that is cclassroom climate was a positive predictor of prosocial behaviour. This finding is consistent with a study conducted by Jenning and Greenberg (2009) who found that prosocial students were in classes where teachers had supportive relationships with their students especially with regard to intrapersonal relationships. These authors claimed that supportive teacher-student relationships and effective classroom management contributed to prosocial behaviour.

Wentzel, Filisetti, and Looney (2007) outlined the reasons why a student might exhibit prosocial behaviour. They proposed external reasons such as fear of punishment or a desire to comply, and internal reasons reflecting personal valuing of prosocial behaviour were two types of behavioural regulation closely related to levels of moral reasoning (Wentzel et al., 2007). In addition, classmates and teachers were considered to be the most proximal and salient source of social cues (Wentzel et al., 2007). There is evidence from my own analysis of the highest and lowest score classes that students from the two highest classes with more supportive relationships with teachers and more positive peer relationships indicated that they regularly followed class rules. On the other hand, the students from the two low classes with less positive teacher relationships and less positive friendships reported that most did not regularly follow class rules.

Learning Engagement and Academic Achievement

The quantitative findings revealed that learning engagement and academic achievement were positively associated with prosocial behaviour. Also the interview data from the 24 teachers provided evidence that teachers encouraged their capable students to help and cooperate with weaker students. These findings were supported by Rogers and Renard (1999) who found that students who perceived their work was valued tended to engage well. With regard to the contribution of academic

achievement on prosocial behaviour, the findings are relevant to Wentzel's (2003) who highlighted that students had to achieve their academic goals in appropriate ways for example by studying hard, and not cheating. In that way, students' prosocial behaviour was built. In relation to classroom climate, students who have a positive classroom climate tend to have high learning engagement and academic achievement as well as prosocial behaviour. For example, students in Fina's class indicated a positive classroom climate, and also indicated high learning engagement, academic achievement and prosocial behaviour.

Peer Relationships

The findings of the current study indicated that positive peer relationships were significantly associated with prosocial behaviour, the more positive the peer relatioships, the higher the prosocial behaviour of the students. These quantitative results were supported by evidence from the interview data. The interviewed teachers mentioned that they encouraged their students to make friends with classmates who isolated themselves. They also encouraged their students to help, and support each other in terms of academic and non-academic aspects. This indicated that the teachers understood the importance of friendship and prosocial behaviour. In the CMS, friendship is a subscale of classroom climate (My Classmates, MC), and prosocial behaviour is an outcome where friendships contribute to it. A classroom with students who have strong friendships and prosocial behaviour will create a supportive classroom climate. In addition, the association between peer relationships and prosocial behaviour is also supported by the literature (Caprara et al., 2000; Wentzel & Caldwell, 1997) that showed a positive association between peer relationships and prosocial behaviour.

Gender

This study revealed that gender significantly influenced prosocial behaviour with a clear finding that the more boys there were in a classroom, the lower the level of prosocial behaviour. The data from the four classes' analysis also provided evidence that in a class with more boys there were higher levels of misbehaviour such as conflicts. These findings suggest that it might be important, where possible, to place more girls in a classroom, and to not place disruptive boys in the same classroom since they might create a negative classroom climate, for example, students in Nara's class with 21 boys, and five girls.This class indicated the lowest score of classroom climate,

and quite negative prosocial behaviour. Also, for boys with good autonomous learning and following class rules, placing them with a balanced ratio with girls might be still appropriate, especially when the number of boys and girls in a school is the same. These current findings were supported by Chang's research findings (2004) where gender can be considered to be a contextual characteristic that contributes to students' outcomes including prosocial behaviour.

7.6 Teacher- Student Relationships

A clear finding from this research was the strength of the connection between teacher-student relationships and classroom climate. Teachers reported in interviews that they believed developing a relationship with a student, through care, was a teaching practice that supported the development of a positive classroom climate. The analysis of the teacher interview data indicated that teachers' care existed in both classroom activities and teacher-student relationships outside the classroom context. O'Connor (2008) also connected teachers' care to classroom management strategies and their relationships with students beyond the classroom. Owens and Ennis (2005) suggested the importance of the inclusion of the concepts of care in pedagogical content knowledge, and that teachers should respond to and approach students with an attitude of care. In conclusion, teachers' care shows teachers supportive involvement in teacher-student relationship. In line with this, Maulana and Opdenakker (2014) found teachers' interpersonal involvement as a predictor of students' academic motivation among Indonesian secondary school students. Thus, positive teacher-student relationship plays an important role for building effective teaching.

Fostering close relationships, trust, and respect were also practices related to the teacher-student relationships in Maros Regency junior high schools. The role of teachers in building a positive peer relationship has been recognised in a study by Hughes and Kwok (2006) who revealed that teacher-student relationships contributed to students' peer acceptance, including their peer acceptance in the following grade. This indicates that the teacher-student relationship is central in student learning and development with short term and long term consequences. In addition, teachers also need to build supportive relationships with their students by considering the students' characteristics. For example, for disengaged students, teachers may foster a positive relationship with them by avoiding criticism, rewarding small achievements, and

building a positive classroom climate free from anxiety or aggressive peers (Marzano & Marzano, 2003). In relation to trust, Dobransky and Frymier (2004) found that students who perceived high levels of trust with their teachers indicated better learning. With regard to respect, Ryan and Patrick (2001) highlighted that promoting mutual respect was positively associated with positive peer relationships since mutual respect would influence students' feelings of safety and comfort.

The evidence from the two lowest and highest classroom climate score classes indicated that students who had more positive relationships with teachers tended to have better academic outcomes. The literature has shown that students who have positive relationships and interactions with others tend to be more successful at school not only for short term goals but also for long term goals (Hoffman, 2009; Osterman, 2000). For short term goals of learning, positive interpersonal relationships between students and teachers influenced students' academic motivation, engagement, and achievement. This is supported by other studies for example Martin and Dowson (2009) who indicated that students' academic motivation, engagement, and achievement were significantly influenced by their relationship with their teachers. Pianta, Hamre, and Allen (2012) also revealed that positive relationships between students and teachers strongly influenced student engagement, and concluded that the student and teacher relationship is a key to understanding student learning engagement. In addition, Opdenakker, Maulana, and den Brok (2012) found that positive teacher and student relationships are fundamental predictors of autonomous motivation. Another study supporting these findings is from the work of Marzano and Marzano (2003) that identified teachers as the most important factor contributing to effective student learning. In summary, there is a clear connection between my findings with that cited in the literature where both have revealed that teacher-student relationships influence students' outcomes including learning engagement and academic achievement.

For long term goals of learning, teacher-student relationships influence students' behavioural characteristics that might contribute to the students' relatedness pattern in their future school levels as Davidson's et al. (2010) revealed from their study. The literature also has highlighted that student and teacher relationships influenced student development (Pianta, et al., 2012, Davis, 2003). With regard to the important impact of teacher relationships on students, the study of Witt, Wheeless and Allen (2004)

highlighted that both teachers' verbal and non-verbal immediacy (smiles, relaxed body posture) were strongly associated with certain attitudes and perceptions of students relating to their learning, and moderately related to cognitive learning outcomes. Another study on teacher non-verbal immediacy showed that non-verbal immediacy and teacher credibility interacted to influence students' motivation and their effective learning (Pogue & AhYun, 2006). From this literature, it can be concluded that no matter how small an effort a teacher makes, it would make a difference for her or his students, and contribute to a positive classroom climate.

The two low and high classes also showed that students with a more positive relationship with teachers more regularly followed class rules, had higher self-efficacy and self-determination, as well as had more positive peer relationships. Conversely, students with less positive relationships with teachers indicated higher levels of anxiety in the classroom and more peer conflicts. In summary, a positive teacher-student relationship is a fundamental subscale in the CMS as it influences the other subscales including following class rules, peer relationships, self-efficacy and self-determination.

7.7 Behaviour Management

Behaviour management is a key factor that determines the quality of a teacher's interaction with students (Pianta and Hamre, 2009). Teachers in this study reported managing students' behaviour in different ways: asking questions and talking with students, seeking background, reconciling students, giving advice, reporting to the class teachers (when taking a class that was not their own), and giving consequences and punishment. Routines and rules were not reported as ways of managing students' behaviour. However, these cannot be separated from behavioural management. Teachers counted the first six forms of behaviour management (asking questions and talking with students, seeking background, reconciling students, giving advice, reporting to the class teachers) as positive ways to manage students' behaviour which in turn would influence a positive classroom climate, while consequences and punishment were regarded as less positive. Detailed information on the six practices has been given in Chapter Five including consequences and punishment used by the teachers to deal with students' misbehaviour. The issues of consequences and punishment emerged as important in examination of how teachers of the two low and

high score classes managed their students. For example, two classes with the lowest score of classroom climate Nara and Wiwik had similarities in managing their misbehaving students such as by asking questions or interrogating, warning, giving threats, and giving advice. Two classes with the highest score of classroom climate were Fina and Mutia when managing students with misbehaviour also used asking for clarification and giving advice. Mutia was the only teacher who said she managed misbehaved students by talking to them privately. To sum up, the more positive the ways used to manage students' misbehaviour, the more positive was the classroom climate.

The teachers interviewed disagreed with the use of punishment when dealing with student misbehaviour or disciplining them during learning activities because they considered this was ineffective. This teacher belief was supported by the literature for example, Scheuermann and Hall (2012) who highlighted the ineffectiveness of giving punishment to students who behaved inappropriately. Nevertheless, some teachers still applied punishment like asking students to stand up in front of the class. Such an inappropriate practice might be influenced by the teacher's own experience when they were students. This is relevant to previous studies highlighting that some teachers tend to follow the way their teachers taught them (Edwards, Carr, & Siegel, 2006). Teachers believed that they needed to be tough on students to make them disciplined and well behaved. This assumption is related to Indonesian culture where to be obedient in the classroom is highly valued (Maulana, Helms-Lorenz, and Van de Grift, 2015).

With respect to whether punishment or consequences are needed, Reeve and Jang (2006) revealed that supportiveness, relatedness, and gentle discipline helped teachers to build a positive relationship with their students. In terms of discipline, Laursen (2003) outlined that discipline should be free from intimidation, humiliation, and embarrassment. Discipline should provide a safe and consistent environment where children can learn reasonable rules, limits, and consequences, as well as the reasons for them, and develop self-discipline and self-control. Laursen (2003) further suggested that discipline should teach children to reflect on their acts and predict possible consequences of their conduct. To conclude, behavioural management will influence the quality of classroom climate. When students are punished in front of their classmates such as asking them to stand up in front of the class, the students would feel embarrased, and that their classroom was not a safe and comfortable place. Rather

than consequences and punishment, behavioural management that fosters positive teacher-student relationships and being free from embarrassment will create a supportive classroom climate.

7.8 Peer Relationships

Peer relationships were identified as one of the main themes from this research that influenced teachers' teaching practices that contributed to classroom climate. Positive peer relationships such as friendship will contribute to a positive classroom climate in which students will feel happy in the classroom because they find their classmates support them and vice versa, free of feeling worried and of having conflicts. Therefore, a positive classroom climate will create an atmosphere which enables students to engage well and gain better achievement. In addition, positive peer relationships will influence students' prosocial behaviour in the classroom. These findings were supported by studies coducted by Berndt (2002) and Wentzel (2003).

The students who were in the two highest classroom climate score classes showed higher levels of friendship than those in the two lowest classes. On the other hand, in the data obtained from the Class Teacher Rating Form, the class teachers rated the peer relationships of their students more positively than students did in the CMS. Based on the two high and low scoring classes, two of the teachers explicitly mentioned their students' capabilities. Fina mentioned that her students had good capabilities in learning. On the other hand, Nara mentioned her students as the lowest class in terms of their academic capabilities. The other two teachers, Mutia and Wiwik, did not mention explicitly their students' competence. The way Fina and Mutia rated their students in terms of peer relationships matched how their students rated themselves on this domain, while Wiwik and Nara rated their students higher than the way their students assessed themselves on peer relationship. However, if we refer to Fina's and Mutia's ratings (on peer relationship) as well as their students' responses, the pattern indicated that students who had positive peer relationships had a more supportive classroom climate and higher outcomes.

The analysis from the two low and high score classes indicated that most of the students from the two low score classes (Nara's and Wiwik's classes) mentioned that they often saw their classmates experiencing conflicts with other students in the classroom. These students also indicated a significant level of feeling worried

(approximately 40% and 32% respectively). In addition, the two high classes, Mutia's and Fina's classes, also showed quite significant levels of feeling worried but a lower level of anxiety than those of Nara and Wiwik's. This pattern implies that feeling safe at school or in the classroom has become an issue and needs attention to it to foster a supportive classroom climate. Friendship has been recognised to be a mediator to reduce some misbehaviour of students for example bullying (Bollmer et al., 2005; Schwartz et al., 2000). Thus, teachers need to create a climate that might enhance students' friendship.

7.9 Teachers' Assumptions about Intelligence and Capabilities, and Students' Difficulties

In this section, two main themes will be discussed, namely, teachers' assumption about students' intelligence and capabilities, and students' difficulties. Teachers' assumptions about students' intelligence and capabilities was a theme that emerged from the analysis of teachers' perceptions. It is very important to highlight this theme because teachers' perspectives drive their teaching practices including their instructional design and behavioural management. For example, when teachers assume that students' intelligence and capabilities can be developed, they will tend to evaluate and improve their teaching practices to develop students'capabilities, and these efforts can be viewed as teachers' instructional support. In relation to classroom climate, teachers' support might foster a positive teacher-student relationship where teacher-student relationship is a subscale of the CMS.

Some teachers believed that students' intelligence and capabilities came from their families and were hard to change. Teachers who held this belief conveyed a message that students who have low learning capabilities will not change even with excellent teaching practices. Thus, this assumption will not contribute to a supportive classroom climate. However, a study of Hattie (2003) revealed that teachers hold more influence than parents, for example, teachers contributed about 30% while parents accounted for about 5-10% of the variance in academic achievement. This indicated that teachers' roles are fundamental, for example, by creating positive relationships with students (both personal and instructional relationships) where teacher-students relationships is a subscale of the CMS.

Associated with students' difficulties, six issues emerged from the interview data including facilities, lack of confidence, language and learning issues, health and physical issues, access to school, and family background and financial issues. Family background and financial difficulties were the most often mentioned by the teachers especially when mentioning students' learning difficulties and motivation. The teachers believed that students lacked motivation in learning because of less attention and encouragement from their parents or families, in orphanages, and other disadvantaged families. When teachers could identify their students' difficulties associated with their family background, the teachers might think of a solution and give support to their students. Helping students to solve their problems and giving them support will build positive teacher-student relationships which will contribute to a supportive classroom climate.

With regard to lack of confidence, teachers thought it related to other issues such as health and physical issues, and family background which eventually would influence students' learning difficulties. When teachers undertood that students learning difficulties came from those issues, they might think how to help and support their students, and not judge them as incapable students. These teachers' behaviour would influence teacher-student relationship which would contribute to a positive classroom climate.

7.10 Teachers' Pedagogies

With respect to teachers' pedagogies, teachers mentioned some important issues such as contextual lessons, interesting learning activities, evaluation of the learning material provided, and student progress evaluation. Although in the interview teachers did not provide further details regarding these issues, this indicated that they needed to address these in their teaching practices. In addition, the gap or the fundamental aspects relating to teachers' pedagogies, which were not mentioned by the teachers, are identified and discussed.

In the interviews, teachers mentioned the importance of making classroom activities interesting. However, it was not mentioned how they made the learning activities appealing. In creating interesting learning activities, the literature offers a large variety of ways. The development of technology has greatly influenced educational reform where teachers employ technology such as computers and internet in creating learning

activities. In Indonesia many schools have been equipped with computers and internet access in order to support student learning. In Maros Regency some schools have been well equipped with computers, projectors and internet access. Schools located in rural areas usually did not receive the same facilities as those in urban areas including the sufficiency of textbooks and internet access. Regardless of the facilities, many teachers faced challenges of utilizing those kinds of technology in their classrooms effectively. Literature has demonstrated that learning and teaching using digital technology influences student engagement in the classroom, and creativity (Greenhow, Robelia, & Hughes, 2009; Roschelle et al., 2001). The use of improved instructional technology may help teachers to manage disruptive students in the classroom because every student is busy with their work, also because children are usually interested in digital technology. In relation to classroom climate, supporting students with interesting learning activities, for example by using digital technology will contribute to a postive classroom climate. Students will enjoy their learning, and better engage in the classroom.

None of the 24 interviewed teachers mentioned including critical thinking when designing classroom activities, but it does not mean that no teachers implemented it. Perhaps it was because they were not asked about critical thinking explicitly. Sometimes there were local seminars discussing theories of Bloom's Taxonomy where many researchers used this taxonomy to develop students' critical thinking. In connection with classroom climate, two of the CMS subscales are learning self-efficacy and self-determination (autonomy). Learning activities involving critical thinking can build students' learning autonomy (self-determination) and self-efficacy, and this will contribute to a supportive classroom climate. For example, when students have been familiar with thinking critically in their learning, their confidence and independence in learning will develop.

Researchers in the field of teaching pedagogies highlighted the importance of involving students' critical thinking when designing learning activities as well as assessing students' work (Bissell & Lemons, 2006; Crowe, Dirks, & Wenderoth, 2008). Questioning skills were recognised as a learning strategy involving students' critical thinking. Chin and Osborne (2008) highlighted students' questions or questioning as an important resource for teaching and learning science. In addition to critical thinking, Inquiry-Based Learning is a learning approach inviting students to

learn using critical thinking (McConnell, Steer, & Ownes, 2003). Moreover, Dunlosky, Rawson, Marsh, Nathan, and Willingham (2013) recommended some effective learning techniques that might help students better regulate their learning including self-explanation, summarization, highlighting (or underlining), imagery use for text learning, rereading, and practice testing. These kinds of learning activities might promote students' autonomy in learning and self-efficacy. These are two subscales of the CMS. Thus, those learning activities influence a supportive classroom climate. In relation to student autonomy, none of the interviewing teachers mentioned about the importance of providing supportive autonomy for students. Reeve (2009) demonstrated the prominence of supportive autonomy compared to a controlling style. He highlighted some reasons why teachers adopted controlling style for example cultural values, and structural expectation.

In terms of evaluation or assessment, these were some activities that the teachers gave the students to be assessed for example, they asked their students to write a summary of the lesson, write an essay, do homework, and do the worksheets. Some teachers also highlighted that they assessed not only the students' cognitive aspects but also other aspects. In Indonesian schools, non cognitive assessment usually refers to students' attitude and behaviour on subjects or lessons, and social relatedness, for example their cooperation with their peers. Social relatedness is an aspect of classroom climate (the CMS) including peer relationships and teacher relationships. When social relatedness aspects are also looked at in evaluating students, this indicates that this types of assessment promotes a supportive classroom climate.

With respect to students' attitudes toward learning, Brophy (2004) highlighted the importance of covering students' preferences and needs. He revealed that permitting students to choose their own learning methods might improve their attitudes toward learning. In addition, Dean (Dean, 2002) suggested the importance of continuously reflecting on their teaching practices, assessing their lesson objectives in relation to students' outcomes, and evaluating whether the lesson activities were appropriate for students to learn.

7.11 Summary of the Chapter

This chapter has presented the final model of classroom climate including teachers' teaching practices and the impact on students' outcomes and discussed how classroom climate was associated with academic achievement and prosocial behaviour. It also discussed why classroom climate did not show direct association with learning engagement. Other characteristics, which contributed to learning engagement, prosocial behaviour, and academic achievement, were also discussed. The next chapter will conclude the whole findings, present the implications, the strengths and limitations of the study, and the recommendations.

CHAPTER EIGHT: CONCLUSION

8.1 Introduction

This study focused on students' perceptions of their classroom climate in Maros Regency junior high schools in Indonesia. This study also involved teachers' perceptions of their students' classroom climate by asking about their teaching practices. Data were collected for six months by using a survey with students and interviews with the class teachers of the student participants of twelve schools. The results provide evidence to support the theoretical framework of classroom climate and the initial model (see Figure 2.1) that guided this research, except with respect to learning engagement. Results from the mixed methods research indicate that classroom climate is an important concept that teachers need to understand to support their teaching practices.

8.2 Key Findings

The findings support previous studies that a positive classroom climate contributes to students' prosocial behaviour and academic achievement. With regard to the ClassMaps Survey (Doll, Spies, LeClair, et al., 2010), the results of the factor analysis indicated that the instrument is a suitable instrument for use in an Indonesian context. Drawing on the findings of this research from the ClassMaps Survey and analysis of teacher interview data, behaviour management, teaching pedagogies, and understanding students' background such as their intelligence and capabilities, it has confirmed a positive contribution to a positive classroom climate. In relation to teaching practices, behavioural management is a key area in which teachers need to develop kills. Another theme associated with teaching practices was teachers' teaching pedagogies. Teachers need be equipped with sufficient pedagogies for example, how to facilitate effective group work (cooperative and collaborative work), design engaging lesson contents for their students, and use appropriate and interesting teaching methods and evaluation. Also, teachers need support and guidance with respect to the assumptions they hold about students' intelligence and capabilities so

that they will have a well-founded basis for providing learning support for their students.

Since supportive teacher-student and peer relationships contribute to a positive classroom climate, teachers need to equip themselves with good quality interpersonal and instructional skills to develop those relationships. Findings related to the self-determination dimensions of the Classroom Climate Survey indicate that it is necessary for the teachers to understand the importance of providing high level instructional support for students in order to promote self-efficacy and autonomy in learning. Effective instructional support also comes from understanding students including their learning difficulties and as such is an important aspect of the teacher-student relationship. When teachers understand their students' difficulties, they will be in a strong position to give their students support, and this in turn will influence a supportive classroom climate. Finally supportive teachers will work to build positive relationships among their students with the knowledge that positive peer relationships are foundational to creating a positive classroom climate.

It is important to listen to the voices of students and find out what is influencing their behaviour, their motivation, their wellbeing and collaboration (and cooperation) in the classroom. Students in the same class have very different experiences and perceptions of classroom climate and teachers who do not listen to the voices of their students are not in a position to address their concerns in a relevant way. In their responses to the CMS questionnaire students indicated by their responses that a significant number had frequent in-class concerns and worries. These concerns were about their in-class relationships, the behaviour of classmates, the difficulty of the school work, their wellbeing, and their communications and interactions with teachers. Teachers interviewed in this study generally showed very little awareness, understanding or appreciation that many of their students had in-class worries and concerns.

8.3 Implications of this Study

This study has significant implications for the research literature and for teaching practices. Firstly, the research bridges a gap in the literature with respect to reseach on classroom climate in Indonesia particularly in South Sulawesi Province. There have been some studies on classroom climate in other provinces of Indonesia, but not in South Sulawesi Province (see Chapter One).

Secondly, this study provides important instructional information for teachers not only in Maros Regency but also in South Sulawesi Province and other schools across Indonesia which have similar contexts as Maros Regency. The picture of teaching practices in Maros Regency through this research can help teachers to be more aware of their classroom practices. Further, this study also provides important information for all educators and relevant stake-holders in Indonesia of the need to provide support for schools, teachers, and students.

8.4 Strengths and Limitations of the Study

Personal strengths:

I was born and grew up in Maros Regency. I undertook my undergraduate studies in South Sulawesi Province, and taught in Maros Regency. This background helped me to understand the context of my research and to establish connections with teacher participants. When interviewing the teacher participants in the research site, they appeared welcoming and willing to share their experiences in relation to teaching practices. This was because they understood that I had similar experiences to them, and I would understand their school situations since I was familiar with the context.

Research strengths:

This study used both quantitative and qualitative data (mixed methods approach). From quantitative data (student questionnaire) I could understand students' perceptions of their classroom climate. From the Teacher Rating Form (quantitative), I gathered information from class teachers about the student participants. The qualitative data collected from the teachers through interviews provided information about their teaching practices in the classroom so that I could link them to their students' perceptions of their own classroom climate. Thus, the use of mixed methods approach provided complete information from both students and teachers.

This study also used a variety of data analysis. The quantitative data were analysed using SPSS version 20 and HLM version 7 (Hierarchical Linear Modelling). Firstly, Factor Analysis was run to see whether the next analyses were worthy to run, then, reliability and normality analyses were undertaken (using SPSS). The last analysis for the quantitative data was to see the associations between classroom climate and outcomes using the Hierarchical Linear Modelling. For qualitative data, thematic

analysis was run by using NVivo version10. Since the interview data were quite large, it was very useful to manage the data using NVivo.

The limitations:

1. If time had permitted it would have been better to undertake the more complex (HLM) quantitative analyses prior to conducting the interviews because some of the unexpected results (e.g. learning engagement finding) from these analyses could have been raised or clarified during the interviews.
2. In terms of students' academic achievement gathered from Teacher Rating Form, I did not use a standardised test, but I used the students' Grade Point Average (GPA) where teachers in each school created their own test for their students. This became a limitation in regard with comparing students' academic achievement across classes and schools. In the future research, it might be useful to use a standardised academic achievement score.
3. The outcome measures rely heavily on the teacher ratings without reference to other sources of data. As mentioned previously (in the Methods Chapter), it was not possible to run reliability analysis for the Class Teacher Rating Form data since each variable only consisted of one item.
4. With regard to teaching practices, if time had permitted, the interviews needed to be longer and include more targeted questions to prompt teachers to provide more detailed information about their teaching practices.
5. Perceptions of classroom climate are limited to those provided by the students. There was no similarly constructed available questionnaire to be able to collect information about teacher's perceptions of classroom climate.
6. This study used a convenience sampling strategy. It is a type of non-probability sampling where the participants are readily available to participate. It is counted as a limitation because not everyone has a chance of being selected (Özdemira, Louis, and Topbas 2011).

8.5 Recommendations

Recommendations for the future research:

1. Investigate the characteristics that influence classroom climate to see whether they have bi-direct association since the current study focused only on classroom climate as a predictor of students' outcomes.
2. This was a cross-sectional study and provided a snapshot of the relationships between classroom climate and teacher ratings at the time of the study. Time permitting, a longitudinal study would enable the researcher to study how classroom climate, academic achievement, learning engagement and prosocial behaviour change and interact over time. Such a study could potentially shed light on possible causal relationships. Therefore, it would be useful to conduct a longitudinal study of classroom climate and its impact on students' outcomes.
3. To develop a richer picture of students' perceptions of their classroom climate, the ClassMaps Survey data need to be supplemented with either interviews of a sample of students or a couple of open ended questions at the end of the questionnaire that could shed light on their classroom contexts and critical issues shaping their perceptions of classroom climate.
4. Developing teacher rating instruments that more fully measure students' outcomes including learning engagement, prosocial behavior, teacher-student relationships, and class teacher-student relationships are needed in order to run reliability analysis. In addition, multiple sources of data (not just relying on teacher ratings) about academic achievement, prosocial behaviour, learning engagement, and relationships are needed.
5. New research questions might be worth exploring for future research for example, "What are the effects of streaming classes? How do the streamed classes impact on classroom climate? And how does a classroom climate impact on the streamed classes?

Recommendation for educational stake holders including teachers:

1. Continuous professional development needs to be provided for teachers, for example teaching methods, the use of digital technology in the classroom, classroom management, designing interesting learning materials, and effective evaluation that promote a supportive classroom climate.

2. Access to adequate instructional resources need to be provided for teachers, for example a school library which is equipped with sufficient books and other resources.
3. Teachers need to understand their students better and have ways of finding out what they are thinking using an instrument like the CMS.
4. Teachers need to understand things which trigger the boys misbehaviour, and the need for gender balance in the classroom.
5. Modern research has found that intelligence and learning ability is not static. A belief that intelligence is static and fixed was implied by a number of teachers in this study and if teachers believe this it will influence their expectations of students they teach. Therefore, professional development covering theories of students' intelligence needs to be provided for teachers.
6. Universities or institutions in South Sulawesi/ Indonesia which produce teacher candidates need to consider the importance of including a course regarding behavioural management, and relational aspects in the classroom, as well as building students' learning self-efficacy and self-determination.

The purpose of this study is to better understand the ways in which classroom climate influences students' prosocial behaviour, learning engagement, and academic achievement. This study provides evidence of the need for change in the thinking and practices of teachers not only in South Sulawesi province but also other areas in Indonesia which have similar contexts to this province. Recent research findings and knowledge of practices that promote classroom climate and student wellbeing are the means for bringing about this transformation. Such transformative change will require the provision of professional training, development, and support to teachers in incorporating the latest research about how to create a more positive classroom climate, engage students in their learning, enhance their wellbeing, and address their needs as learners and as people. It will also require teachers being provided better resources in terms of instructional materials. In addition, linking to the existing research in the Indonesian context, to further improve classroom climate, students' autonomy including autonomous motivation, competence, and relatedness support from teachers need to be enhanced.

APPENDICES

Appendix A1. SBREC Approval

MODIFICATION (No.2) APPROVAL NOTICE

Project No.:	5797
Project Title:	The Classroom Climate and Its Impact on Students' Outcomes in Maros Regency Junior High Schools in Indonesia
Principal Researcher:	Mrs Rosmawati Rosmawati
Email:	rosm0006@flinders.edu.au

Modification Approval Date:	1 July 2015	Ethics Approval Expiry Date:	1 October 2015

I am pleased to inform you that the modification request submitted for project 5797 on the 18 June 2015 has been reviewed and approved by the SBREC Chairperson. Please see below for a list of the approved modifications. Any additional information that may be required from you will be listed in the second table shown below called 'Additional Information Required'.

Approved Modifications	
Extension of ethics approval expiry date	X
Project title change	
Personnel change	
Research objectives change	
Research method change	
Participants – addition +/- change	
Consent process change	
Recruitment process change	
Research tools change	
Document / Information Changes	
Other (if yes, please specify)	

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Appendix A2. Letter of Introduction for School Principals

Dr Pam Bartholomaeus
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CRICOS Provider No. 00114A

LETTER OF INTRODUCTION

Dear Sir/Madam,

This letter is to introduce Mrs Rosmawati who is a Doctor of Philosophy student in the School of Education at Flinders University. She will produce her student card, which carries a photograph, as proof of identity. She is undertaking research leading to the production of a thesis and other publications on the subject of "Classroom Climate and Its Impact on Students' Outcomes in Maros Regency Junior High Schools in Indonesia".

She would be most grateful if you would assist her with this project by granting her permission to approach class-teachers in your school to volunteer to recruit the students in his/her class to complete a questionnaire, summarise data about their students' engagement with schooling, and participate in filling out a rating form and an interview. Teachers and students are free to discontinue their participation at any time or to decline to answer particular questions. A single lesson will be required for the completion of the questionnaire and the interview will be approximately thirty minutes in duration.

Be assured that any information provided will be treated in the strictest confidence and none of the participants or their schools will be identifiable in the resulting thesis or other publications.

Any enquiries you may have about this project should be directed to me at the address above or by telephone on +61 8 8201 1205, by fax on +61 8 8201 3184 or by email (pam.bartholomaeus@flinders.edu.au).

Thank you for your attention and assistance.

Yours sincerely

Pamela A Bartholomaeus

Dr Pam Bartholomaeus
Lecturer
School of Education

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 5797). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au.

inspiring achievement

Appendix A3. Letter of Introduction for Class Teachers

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LETTER OF INTRODUCTION

Dear Parent/Guardian,

This letter is to introduce Mrs Rosmawati who is a Doctor of Philosophy student in the School of Education at Flinders University. She is undertaking research exploring the classroom climate and its impact on students' outcomes of middle school students which will lead to the production of a thesis and some other publications.

I would be grateful if you would assist this project by consenting to your child completing a questionnaire in class which covers certain aspects of this topic as student-teacher relationships (e.g. I like my teachers), student-peer relationships: a) peer friendship (e.g. I have a friend in my classes), b) peer conflict (e.g. Kids in this class argue each other), c) worries about peer aggression (e.g. I worry that other kids will do mean things to me), student-parent relationships (e.g. My parents and I talk about problems that I have in this class), self-efficacy (e.g. I can do my work correctly in this class), behavioural self-control (e.g. Most kids in this class listen carefully when the teachers give directions), and self-determination (e.g. I want to know more about the things we learn in this class). No more than a single lesson on one occasion will be required.

Be assured that any information collected will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report or other publications. Your child is, of course, free to discontinue participation at any time or to decline to answer particular questions.

Any enquiries you may have about this project should be directed to me at the address above or by telephone on +61 8 8201 1205, by fax on +61 8 8201 3184 or by email (pam.bartholomaeus@flinders.edu.au).

Thank you for your attention and assistance.

Yours sincerely

Pamela A Bartholomaeus

Dr Pam Bartholomaeus
Lecturer
School of Education

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number: 5797). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au.

inspiring achievement

Appendix A4. Letter of Introduction for Parents

Dr Pam Bartholomaeus
Lecturer, Literacy and Rural Education
School of Education
5.21 Education Building
GPO Box 2100
Adelaide SA 5001
Tel: +61 8 8201 2105
Fax:+61 8 8201 3184
pam.bartholomaeus@flinders.edu.au
http://www.flinders.edu.au/people/pam.bartholomaeus
CRICOS Provider No. 00114A

LETTER OF INTRODUCTION

Dear Sir/Madam,

This letter is to introduce Mrs Rosmawati who is a Doctor of Philosophy student in the School of Education at Flinders University. She will produce her student card, which carries a photograph, as proof of identity. She is undertaking research leading to the production of a thesis and other publications on the subject of 'Classroom Climate and Its Impact on Students' Outcomes in Maros Regency Junior High Schools in Indonesia'.

She would be most grateful if you would volunteer to assist in this project, by assisting her to seek parental and student consent for students in your home class to complete a questionnaire, complete a sheet of simple sheet of summary data about your students, and grant an interview of approximately thirty minutes.

Be assured that any information provided will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report or other publications. You are, of course entirely free to discontinue your participation at any time or to decline to answer particular questions.

Since Rosmawati intends to audio record the interview she will seek your consent, one the attached form, to record the interview, to use the recording or transcripts in preparing the thesis, report or other publications, on condition your name or identity is not revealed, and to make the recording available to other researchers on the same conditions.

Any enquiries you may have about this project should be directed to me at the address above or by telephone on +61 8 8201 1205, by fax on +61 8 8201 3184 or by email (pam.bartholomaeus@flinders.edu.au).

Thank you for your attention and assistance.

Yours sincerely

Pamela A Bartholomaeus

Dr Pam Bartholomaeus
Lecturer
School of Education

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number: 5797). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au.

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Appendix A5. Information Sheet for Class Teachers

Mrs. Rosmawati
School of Education
Faculty of Education, Humanities, Law & Theology

Flinders

GPO Box 2100
Adelaide SA 5001

Phone: +62 411 371 749
rosm0006@flinders.edu.au

CRICOS Provider No. 00114A

I

INFORMATION SHEET
(for class-teachers)

Title: Classroom Climate and Its Impact on Students' Outcomes in Maros Regency Junior High Schools in Indonesia

Investigators:
Mrs. Rosmawati
School of Education
Flinders University
Ph: +62 411 371 749

Description of the study:

This data collection is a part of the study that entitles "Classroom Climate and Its Impact on Students' Outcomes in Maros Regency Junior High Schools in Indonesia". This project aims to examine the association between classroom climate, prosocial behaviour, student engagement, academic achievement, and student wellbeing of junior high school students in Maros Regency; to explore the teaching and learning practices that junior high schools in Maros Regency implement that influence classroom climate; and to develop a model about what influences the classroom climate and its impact on prosocial behaviour, classroom engagement, academic achievement, and student wellbeing. This project is supported by Flinders University, School of Education.

Purpose of the study:

This study aims to (1) examine the association between classroom climate and student prosocial behaviour, classroom engagement, academic achievement, and student wellbeing in Maros Regency junior high school students; (2) explore the teaching and learning practices in Maros Regency junior high schools that influence the classroom climate, and to (3) develop a model about what influences the classroom climate and its impact on prosocial behaviour, classroom engagement, academic achievement, and student wellbeing. More specific, it aims to identify:

1. the extent of the classroom climate correlates with prosocial behaviour, classroom engagement and academic achievement, and student wellbeing?
2. the teaching practices used in Maros Regency junior high schools to promote the development of a positive classroom climate and how effective are they?
3. the evidence supporting the proposed model that posits teaching practices shape classroom climate, which in turn influences prosocial behavior, classroom engagement, academic achievement, and student wellbeing.

Appendix A6. Information Sheet for Parents/students

[Mrs. Rosmawati]
School of Education
Faculty of Education, Humanities, Law & Theology

Flinders University

GPO Box 2100
Adelaide SA 5001

Phone: +62 411 371 749
rosm0006@flinders.edu.au

CRICOS Provider No. 00114A

INFORMATION SHEET
(for students/parents)

Plain language: Finding about junior high school classroom climate and its impact

Investigator:
Mrs. Rosmawati
School of Education
Flinders University
Ph: +62 411 371 749

Description of the study:

This data collection is a part of the study that entitles "Classroom Climate and Its Impact on Students' Outcomes in Maros Regency Junior High Schools in Indonesia". This project aims to examine the association between classroom climate, prosocial behaviour, student engagement, academic achievement, and student wellbeing of junior high school students in Maros Regency; to explore the teaching and learning practices that junior high schools in Maros Regency implement that influence classroom climate; and to develop a model about what influences the classroom climate and its impact on prosocial behaviour, learning engagement, academic achievement, and student wellbeing.
This project is supported by Flinders University, School of Education.

Purpose of the study:

This study aims to (1) examine the association between classroom climate and prosocial behaviour, student engagement, academic achievement, and student wellbeing in Maros Regency junior high school students; (2) explore the teaching practices in Maros Regency junior high schools that influence the classroom climate, and to (3) develop a model about what influences the classroom climate and its impact on prosocial behaviour, learning engagement, academic achievement, and student wellbeing. More specific, it aims to identify:

1. the extent of the classroom climate correlates with prosocial behaviour, classroom engagement and academic achievement, and student wellbeing
2. the teaching and learning practices used in Maros Regency junior high schools to promote the development of a positive classroom climate and how effective they are.
3. the evidence supporting the proposed model that posits teaching practices shape classroom climate, which in turn influences prosocial behavior, classroom engagement, academic achievement, and student wellbeing.

What will I be asked to do?

Questionnaire

You are invited to complete a questionnaire on your views about classroom climate includes relationships with your teachers, peers and parents, self-efficacy, self-determination, and behavioural self-control.

What benefit will I gain from being involved in this study?

No direct benefit but hope to improve teaching and learning practices at school.

You will have the opportunity to express your thinking based on your experiences regarding your relationships with teachers, peers and parents, classroom engagement, self-efficacy, self-determination, and behavioural self-control. Your participation will provide valuable information as the basis for future development of teaching and learning practices at school in Maros Regency. The classroom climate will be valuable and comprehensive that can be used for future improvement of teaching and learning practices in junior high schools in Maros Regency as well as in elementary and senior high schools.

Will I be identifiable by being involved in this study?

You will be anonymous. Any identifying information will be removed and the typed-up file stored on a password protected computer that only the researcher (Mrs. Rosmawati) will have access to. Your comments will not be linked directly to you.

Are there any risks or discomforts if I am involved?

If you have any concerns regarding anticipated or actual risks or discomforts, please raise them with the researcher.

How do I agree to participate?

Participation is voluntary. You are free to withdraw at any time without effect or consequences if there are any questions that you do not want to answer. A consent form accompanies this information sheet. If you agree to participate please read and sign the form.

How will I receive feedback?

Outcomes from the project will be summarised and given to you by the researcher if you would like to see them.

Should you have any concerns or questions regarding this research, please feel free to contact the researcher Mrs. Rosmawati by phone on +62 411 371 749 or by email to rosm0006@flinders.edu.au or the supervisor Dr. Pamela Bartholomaeus on +61 418 806 575 or by email to pam.bartholomaeus@flinders.edu.au.

Thank you for taking the time to read this information sheet and we hope that you will accept our invitation to be involved.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number : 5797). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on (+61)(8) 8201 3116, by fax on (+61)(8)8201 2035 or by email human.researchethics@flinders.edu.au

What will I be asked to do?

- ***Class-Teacher Rating Form***

You are invited to fill out a simple form about your students' behaviour, engagement, relationships, and academic achievement.

- ***Interview***

You are invited to attend a one-on-one interview with the researcher who will ask you a few questions about Classroom climate that covers student relationship with teachers, peers and parents, and teaching and learning practices implemented in the classroom. The interview will take about thirty minutes. The interview will be recorded using a digital voice recorder to help with looking at the results. Once recorded, the interview will be transcribed (typed-up) and stored as a computer file and then destroyed once the results have been finalized. This is voluntary.

What benefit will I gain from being involved in this study?

You will have the opportunity to share your experiences. The sharing of your experiences will provide valuable information as the basis for future development of the schools in Maros Regency. The classroom climate will be valuable and comprehensive that can be used for future improvement of teaching and learning practices in junior high schools in Maros Regency as well as in elementary and senior high schools.

Will I be identifiable by being involved in this study?

We do not need your name and you will be anonymous. Once the interview have been typed-up and saved as a file, the voice file will then be destroyed. Any identifying information will be removed and the typed-up file stored on a password protected computer that only the researcher (Mrs. Rosmawati) will have access to. Your comments will not be linked directly to you.

Are there any risks or discomforts if I am involved?

There will be no risks or discomfort in your involvement. However, if you have any concerns regarding anticipated or actual risks or discomforts, please raise them with the researcher.

How do I agree to participate?

Participation is voluntary. You are free to withdraw at any time without effect or consequences if there are any questions that you do not want to answer. A consent form accompanies this information sheet. If you agree to participate please read and sign the form.

How will I receive feedback?

Outcomes from the project will be summarised and given to you by the researcher if you would like to see them.

Should you have any concerns or questions regarding this research, please feel free to contact the researcher Mrs. Rosmawati by phone on +62 411 371 749 or by email to rosm0006@flinders.edu.au or the supervisor Dr. Pamela Bartholomaeus on +61 418 806 575 or by email to pam.bartholomaeus@flinders.edu.au.

Thank you for taking the time to read this information sheet and we hope that you will accept our invitation to be involved.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number : 579). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on (+61)(8) 8201 3116, by fax on (+61)(8)8201 2035 or by email human.researchethics@flinders.edu.a

Appendix B. Research Permission Letter from Maros Regency Government Education Service

MAROS REGENCY GOVERNMENT
EDUCATION SERVICE
Address: JalanJend. Sudirman No. 30 Telp/Fax 0411- 371 336

RESEARCH PERMISSION LETTER
Official Number: [illegible]/2012

In regard to the letter of Rosmawati's Principal Supervisor issued inAugust 2012 about seeking permission for conducting her research in junior high schools in Maros Regency, Iwho issued this letter:

Name	:	DR. H. NASIRUDDIN RASYID, M.PD
Official Reg. Number	:	19580725 198503 1 013
Position	:	The Secretary of Education Service in Maros Regency

Gives permission to:

Name	: Rosmawati
Student IDNumber	: 2034368
Degree	: Ph.D(Doctor of Philosophy in Education) of Flinders University
Research Site	: Public Junior High Schools in Maros Regency

To contact the public junior high schools in Maros Regency in order to conduct research for her Ph.D thesis that entitles the Social-Emotional Wellbeing of Students in Maros Regency and What Influences it. In her research, she will ask the students to fill out the questionnaire voluntarily, and ask the class teachers to fill out a rating form and participate in an interview voluntarily.

Maros, 5 September 2012
On behalf of the Head of Education Service in Maros Regency
Secretary

DR. H. NASIRUDDIN RASYID, M.Pd
Official Reg. No. : 19580725 198503 1 013

Appendix C1. The English Version of the Questionnaire

My Classroom Climate 

Name:

Age: ..... years Sex:.....M/F (circle) Year Level: ..... Class Group.....

Put an X in the column that shows how often you think the statement is true to you. There are no right or wrong answers. Please be as honest as you can. Thank you for helping with this research on finding out what Junior High School students think about their classroom climate.

		Never	Some-times	Often	Almost Always
1.	I can do my work correctly in this class.				
2.	I can do as well as most kids in this class.				
3.	My teacher listens carefully to me when I talk.				
4.	My teacher helps me when I need help.				
5.	I want to know more about the things we learn in this class.				
6.	In this class, I can guess what my grade will be when I turn in my work.				
7.	I have a lot of fun with my friends in this class.				
8.	My friends care about me a lot.				
9.	Most kids work quietly and calmly in this class.				
10.	Most kids in this class listen carefully when the teacher gives directions.				
11.	My parents and I talk about my grades in this class.				
12.	My parents and I talk about what I am learning in this class.				
13.	I worry that other kids will do mean things to me.				
14.	I worry that other kids will tell lies about me				
15.	Kids in this class argue a lot with each other.				
16.	Kids in this class pick on or make fun of each other.				

		Never	Some-times	Often	Almost Always
17.	I can help other kids understand the work in this class.				
18.	I can be a very good student in this class.				
19.	My teacher respects me.				
20.	My teacher likes having me in this class.				
21.	I work as hard as I can in this class.				
22.	I find and fix my mistakes before turning in my work.				
23.	I have friends to eat lunch with and play with at recess.				
24.	I have friends that like me the way I am.				
25.	Most kids follow the rules in this class.				
26.	Most kids in this class pay attention when they are supposed to.				
27.	My parents and I talk about my homework in this class.				
28.	My parents help me with my homework when I need it.				
29.	I worry that other kids will hurt me on purpose.				
30.	I worry that other kids will say means things about me.				
31.	Kids in this class tease each other or call each other names.				
32.	Kids in this class in this class hit or push each other.				
33.	I can do the hard work in this class.				
34.	I can get good grades when I try hard in this class.				
35.	My teacher makes it fun to be in this class.				
36.	My teacher thinks I do a good job in this class.				
37.	I learn because I want to and not just because the teacher tells me to.				
38.	When the work is hard in this class, I keep trying until I figure it out.				
39.	My friends like me as much as they like other kids.				

		Never	Some-times	Often	Almost Always
40.	I have friends who will stick up for me if someone picks on me.				
41.	Most kids do their work when they are supposed to in this class.				
42.	Most kids in this class behave well even when the teacher isn't watching.				
43.	My parents and I talk about ways that I can do well in school.				
44.	My parents and I talk about good things I have done in this class.				
45.	I worry that other kids will leave me out on purpose				
46.	I worry that other kids will try to make my friends stop liking me.				
47.	Kids in this class in this class say bad things about each other.				
48.	I know that I will learn what is taught in this class.				
49.	I expect to do very well when I work hard in this class.				
50.	My teacher is fair to me.				
51.	I know the things I learn in this class will help me outside of school				
52.	I can tell when I make a mistake on my work in this class.				
53.	My parents and I talk about problems I have in this class.				
54.	I worry that other kids will make me do things I don't want to do.				
55.	I worry that other kids will take things away from me.				

If you have finished the questions early you might like to write or draw about what life is like for you at school. You can draw it at the back of this paper.

Thank you 

Appendix C2. The Indonesian Version of the Questionnaire

Suasana di Kelasku

Nama:

Usia: ..... tahun Jenis kelamin: .....L/P (Lingkari) Kls: .....

Berilah tand X (Silang) pada salah satu kolom yang menunjukkan seberapa sering pernyataan berikut terjadi pada diri Anda. Tidak ada jawaban benar atau salah. Mohon dijawab dengan jujur. Terimakasih atas bantuannya dalam mengisi kuesioner ini untuk melihat apa pendapat siswa SMP tentang bagaimana suasana di kelas mereka.

		Tidak pernah	Kadang-kadang	Sering	Hampir selalu
1.	Saya bisa mengerjakan pekerjaanku di kelas dengan benar.				
2.	Saya bisa mengerjakan tugas dengan baik seperti teman-teman sekelas saya.				
3.	Guru saya mendengarkan saya dengan seksama ketika saya berbicara.				
4.	Guru membantu saya ketika saya membutuhkannya				
5.	Saya ingin lebih banyak tahu tentang hal-hal yang kami pelajari di kelas.				
6.	Di kelas saya bisa menebak nilai yang akan saya peroleh ketika saya mengumpul pekerjaan saya.				
7.	Saya bergembira bersama teman-teman sekelas saya.				
8.	Teman-teman sangat perduli padaku.				
9.	Umumnya teman-teman sekelasku tenang di dalam kelas.				
10.	Pada umumnya teman-teman sekelasku memperhatikan dengan seksama ketika guru memberi pengarahan.				
11.	Saya dan orang tua saya membicarakan nilai yang saya peroleh di kelas.				
12.	Saya dan orang tua membicarakan apa yang saya pelajari di sekolah.				
13.	Saya khawatir apabila ada teman yang akan berbuat tidak baik pada saya.				
14.	Saya khawatir apabila ada teman yang berbicara tidak benar tentang saya.				
15.	Teman-teman di kelasku sering sekali bertengkar satu sama lain.				
16.	Teman-teman di kelasku suka mengolok-olok satu sama lain.				

		Tidak pernah	Kadang-kadang	Sering	Hampir selalu
17.	Saya bisa membantu teman-teman untuk memahami pelajaran di kelas.				
18.	Saya bisa menjadi siswa yang sangat baik di kelas.				
19.	Guru saya menghargai saya.				
20.	Guru senang akan keberadaan saya di kelas.				
21.	Saya mengerjakan tugas di kelas semampu saya.				
22.	Saya berusaha memperbaiki setiap kesalahan yang ada pada tugas saya sebelum mengumpulkannya.				
23.	Saya punya teman-teman bermain di saat jam istirahat.				
24.	Saya memiliki teman yang menyukai saya apa adanya.				
25.	Umumnya teman-teman sekelasku menaati peraturan di kelas.				
26.	Umumnya teman-teman di kelas memberi perhatian ketika mereka diminta.				
27.	Saya dan orang tua membahas PR (Pekerjaan Rumah) saya.				
28.	Orang tua membantu saya kerja PR ketika saya butuh.				
29.	Saya khawatir teman-teman lain menyakiti saya dengan sengaja.				
30.	Saya khawatir jika teman-teman lain berbicara jelek tentang saya.				
31.	Teman-teman sekelasku saling mengolok atau mengejek dengan nama sebutan.				
32.	Teman-teman sekelasku saling memukul atau mendorong.				
33.	Saya bisa mengerjakan tugas yang berat di kelas.				
34.	Saya bisa meraih nilai yang bagus jika berusaha keras.				
35.	Guru saya membuat suasana menyenangkan untuk berada di dalam kelas.				
36.	Guru saya menganggap saya melaksanakan tugas dengan baik di kelas.				
37.	Saya belajar karena saya mau, bukan semata-mata karena saya disuruh oleh guru.				

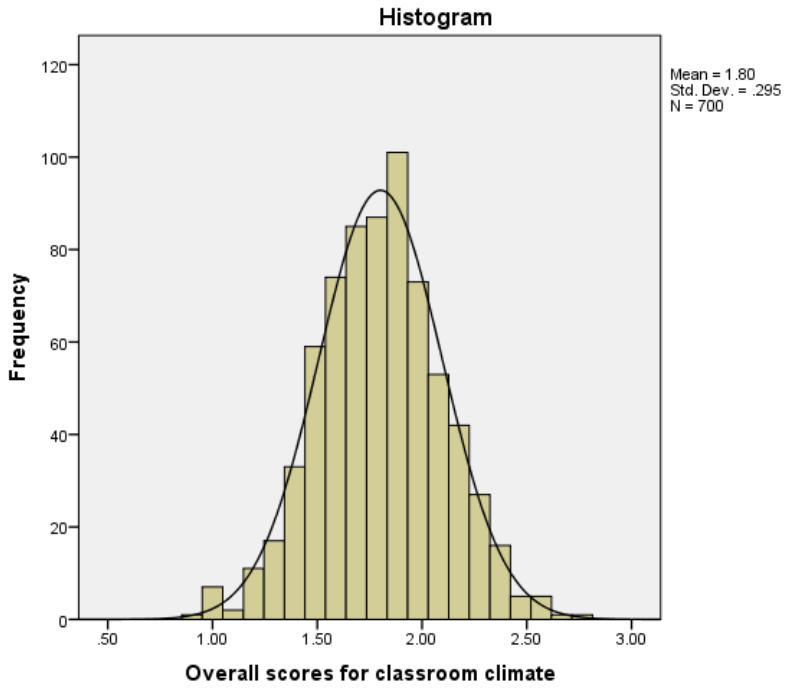
		Tidak pernah	Kadang-kadang	Sering	Hampir selalu
38.	Apabila saya belajar, saya terus berusaha sampai saya mengerti.				
39.	Teman-teman suka sama saya sebagaimana mereka menyukai teman lainnya.				
40.	Saya punya teman yang akan membela saya jika ada yang menganggu.				
41.	Umumnya teman-teman sekelasku mengerjakan tugas mereka apabila diminta untuk mengerjakannya.				
42.	Umumnya teman-teman sekelasku berprilaku baik meskipun pada saat guru tidak mengawasi mereka.				
43.	Saya bersama orang tua membahas tentang bagaimana cara belajar dengan baik di sekolah.				
44.	Saya bersama orang tua membicarakan hal-hal bagus yang telah saya lakukan di kelas.				
45.	Saya khawatir kalau teman-teman akan meninggalkan saya dengan sengaja.				
46.	Saya khawatir kalau teman lain akan mencoba mempengaruhi teman-teman untuk membenciku.				
47.	Teman-teman sekelasku saling mengatai.				
48.	Saya yakin saya akan bisa mempelajari apa yang diajarkan di kelas.				
49.	Saya berharap bisa mengerjakan tugas dengan baik apabila saya bekerja keras di dalam kelas.				
50.	Guru saya bersikap adil terhadap saya				
51.	Saya tahu apa yang saya pelajari di kelas akan membantu saya di luar sekolah.				
52.	Saya tahu ketika saya membuat kesalahan pada pekerjaan saya di kelas.				
53.	Saya dan orang tua membicarakan masalah yang saya hadapi di kelas.				
54.	Saya khawatir teman-teman lain akan membuat saya melakukan hal yang saya tidak ingin lakukan.				
55.	Saya khawatir teman-teman lain akan merebut apa yg saya miliki.				

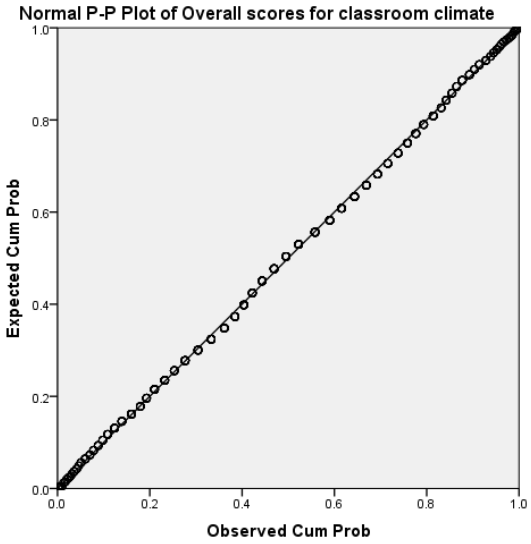
Jika Anda telah menyelesaikan pertanyaan di atas lebih awal, mohon Anda menggambar atau menulis beberapa kata tentang keseharian Anda di sekolah. Anda bisa menggambar / menulis di bagian belakang kertas ini.

Terima kasih

Appendix D1. Normality Test of Classroom Climate Scale

		Statistic	Std. Error
Classroom climate Scale	Mean	1.8013	.01115
	Skewness	.023	.092
	Kurtosis	.065	.185

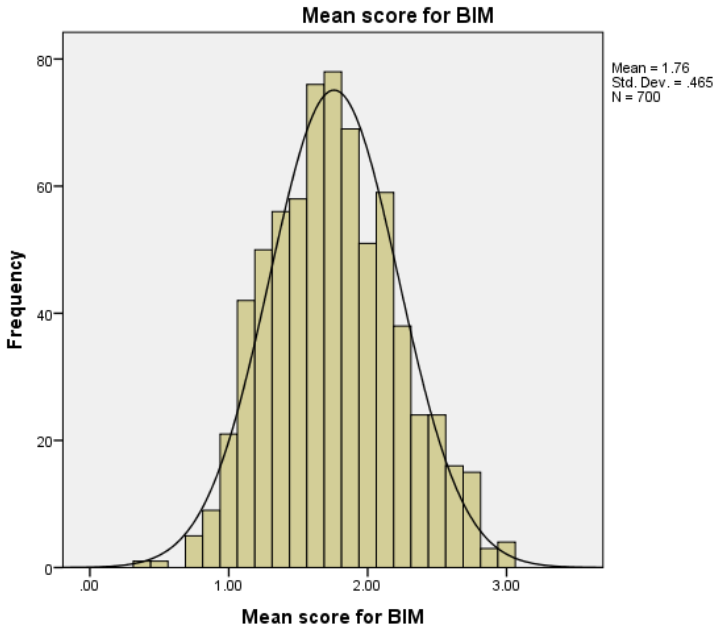


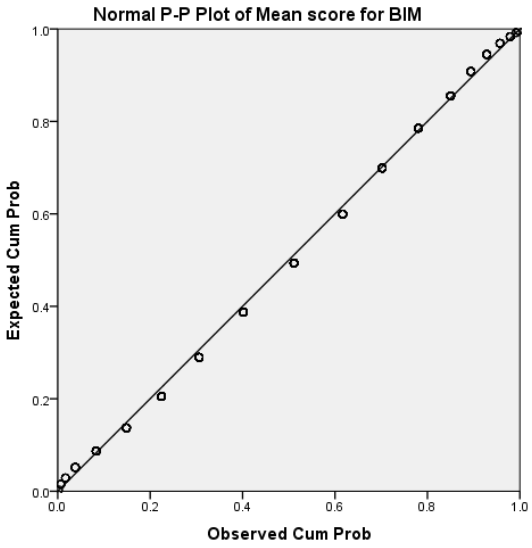


Appendix D2. Normality Test of Classroom Climate Subscales

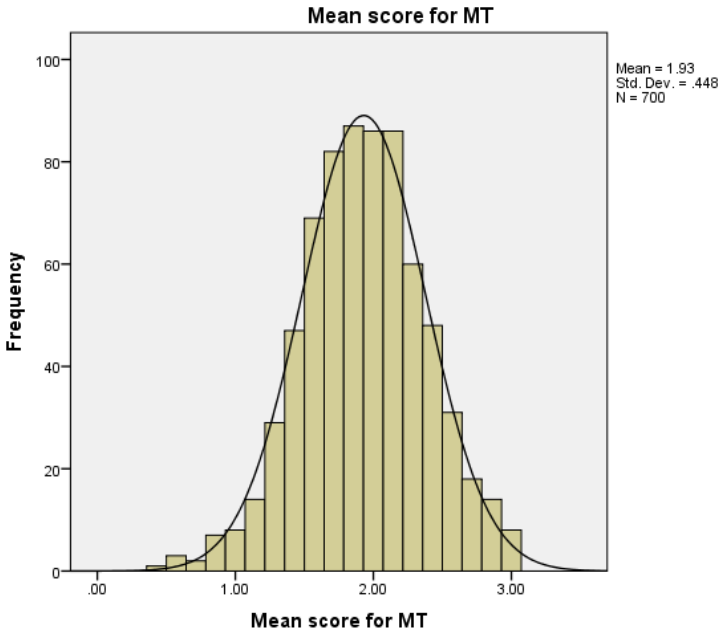
N = 700	Mean	Skewness		total	Kurtosis	
	Statistic	Statistic	Std. Error		Statistic	Std. Error
Mean score for BIM	1.7577	.202	.092	0.22	-.312	.185
Mean score for MT	1.9302	-.110	.092	-0.00	.090	.185
Mean score for TC	2.0381	-.076	.092	0.83	-.123	.185
Mean score for MC	1.9243	-.228	.092	-2.48	.309	.185
Mean score for FCR	1.4921	.347	.092	3.77	-.098	.185
Mean score for TWP	1.3278	.035	.092	0.38	-.156	.185
Mean score for IWT	2.10018	-.693	.092	-7.53	-.002	.185
Mean score for KITC	1.6914	-.141	.092	-1.53	-.454	.185
Valid N (listwise)						

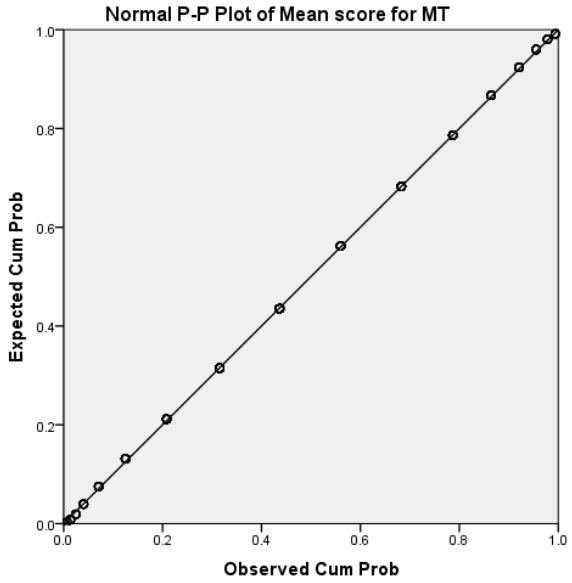
BELIEVING IN ME (BIM)



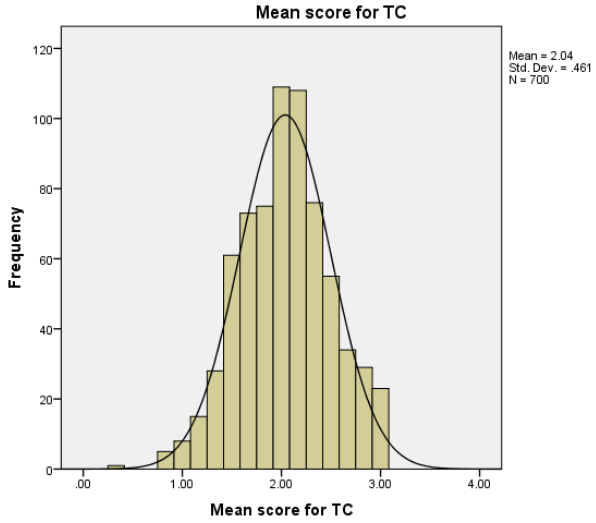


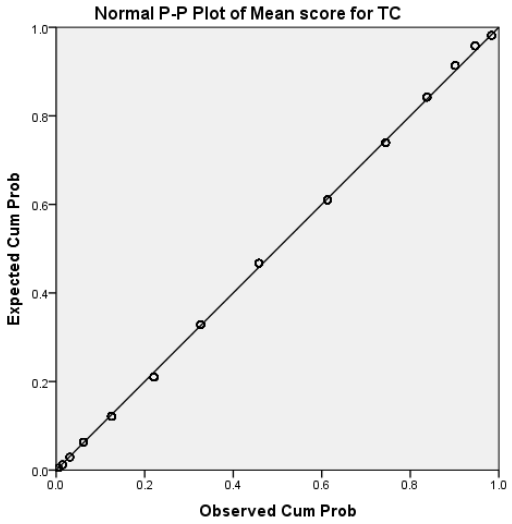
MY TEACHER (MT)



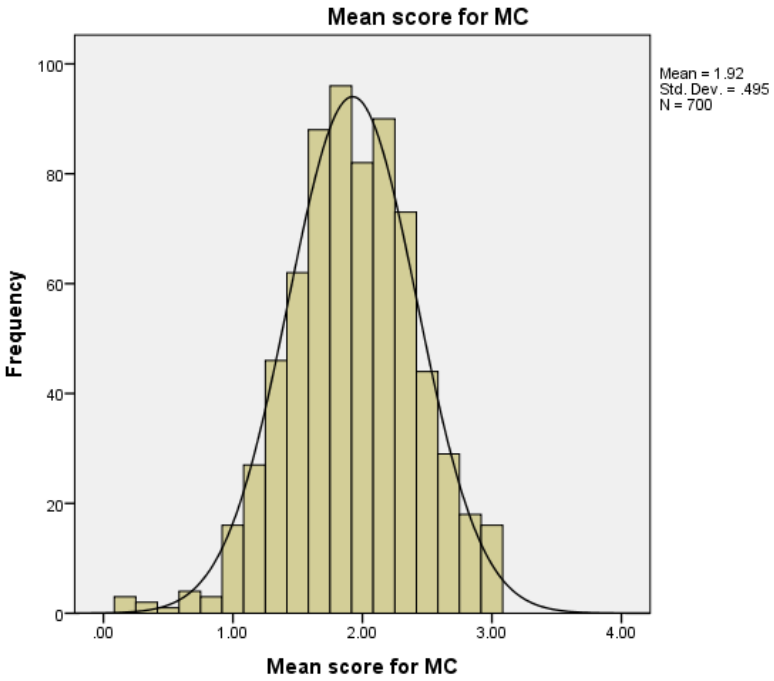


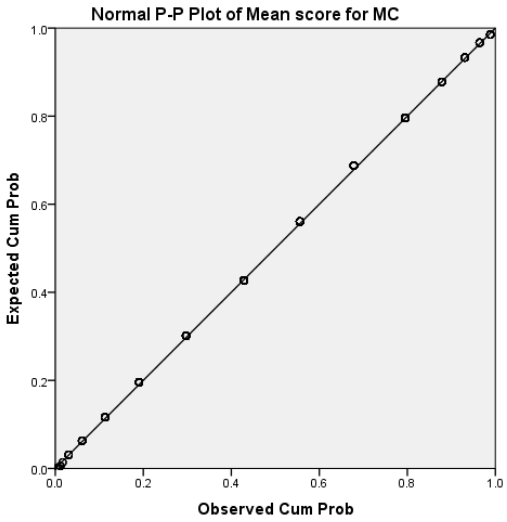
TAKING CHARGE (TC)



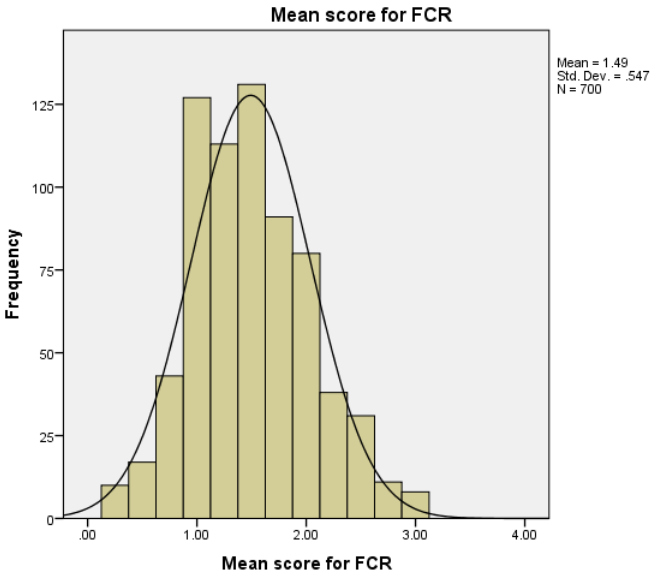


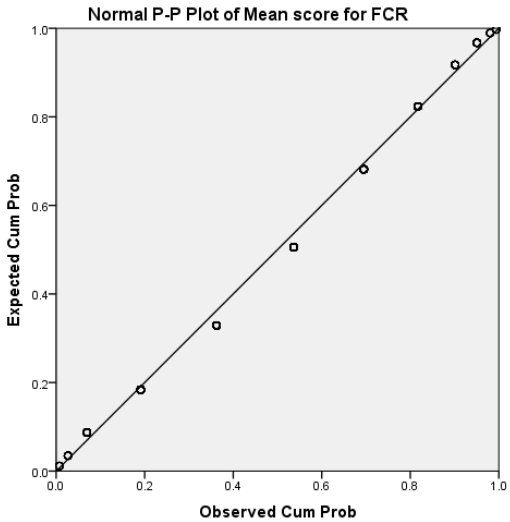
MY CLASSMATES (MC)

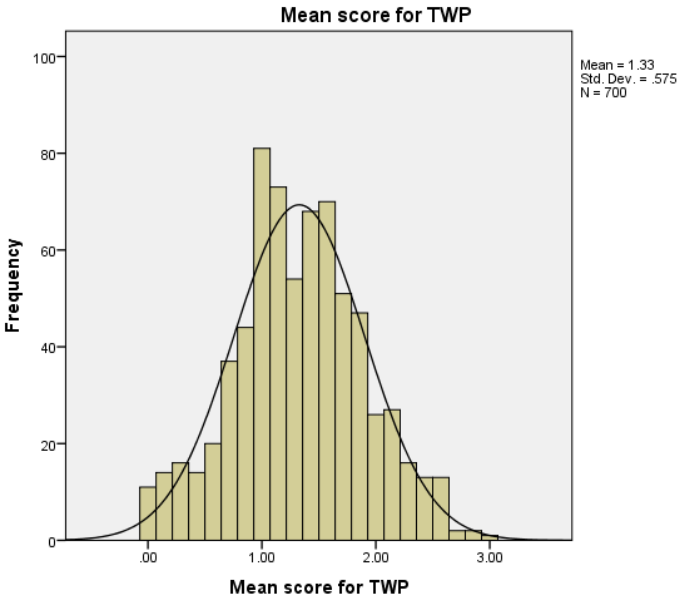


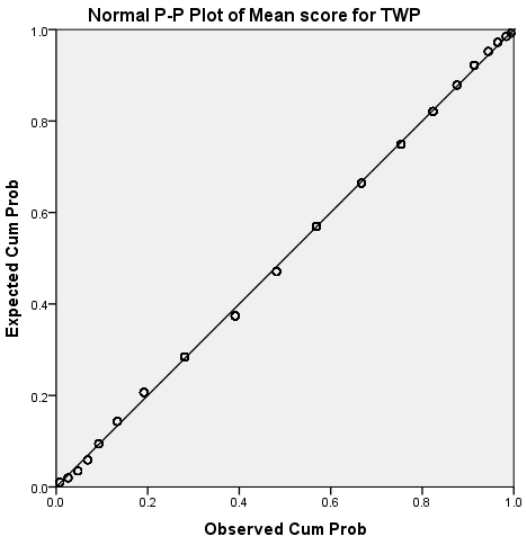


FOLLOWING CLASS RULES

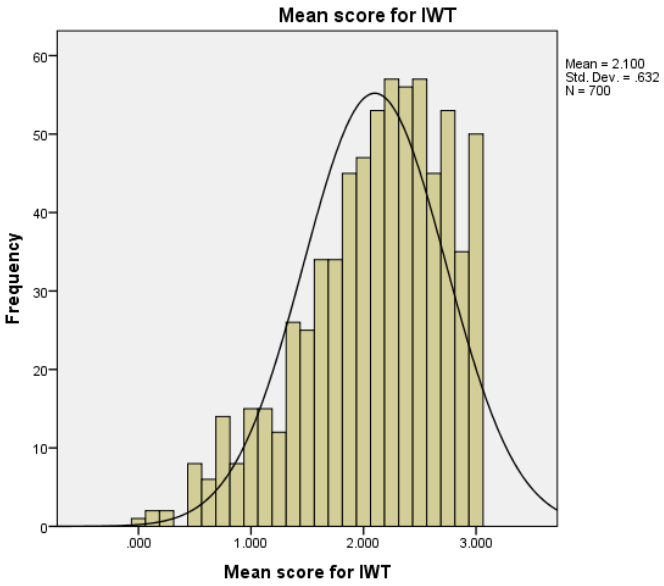


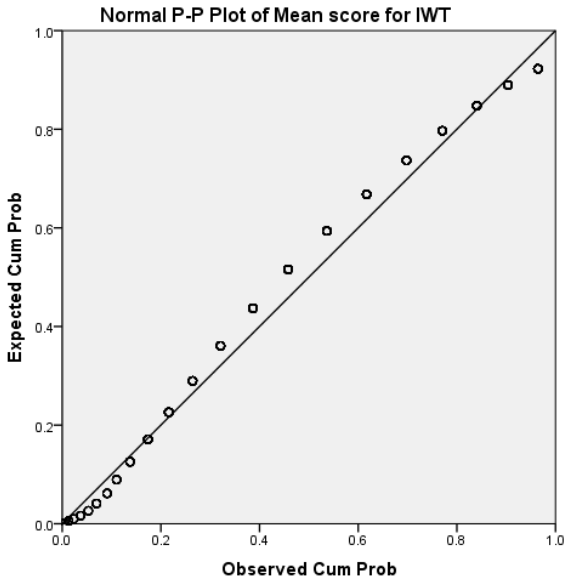



Mean score for TWP
Mean = 1.33
Std. Dev. = .575
N = 700
Frequency
100
80
60
40
20
0
.00
1.00
2.00
3.00
Mean score for TWP

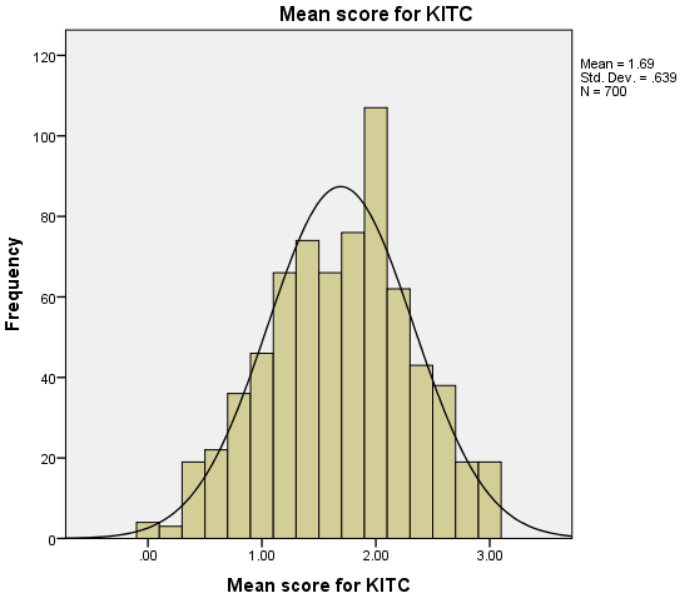

Normal P-P Plot of Mean score for TWP
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0

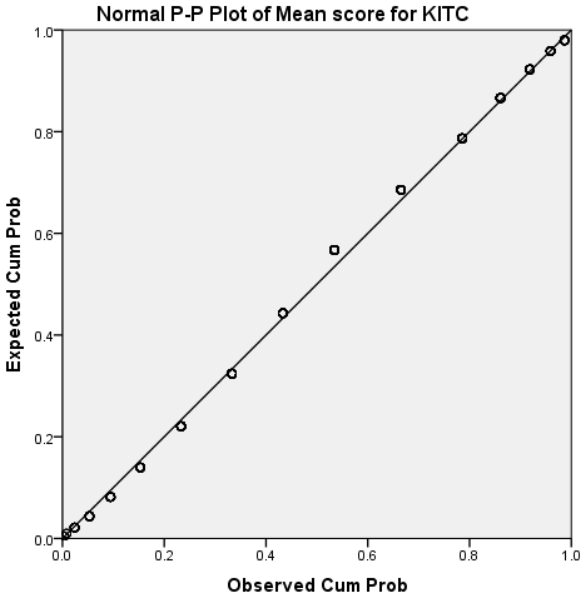
I WORRY THAT


Mean score for IWT
Mean = 2.100
Std. Dev. = .632
N = 700
Frequency
60
50
40
30
20
10
0
.000
1.000
2.000
3.000
Mean score for IWT


Normal P-P Plot of Mean score for IWT
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0

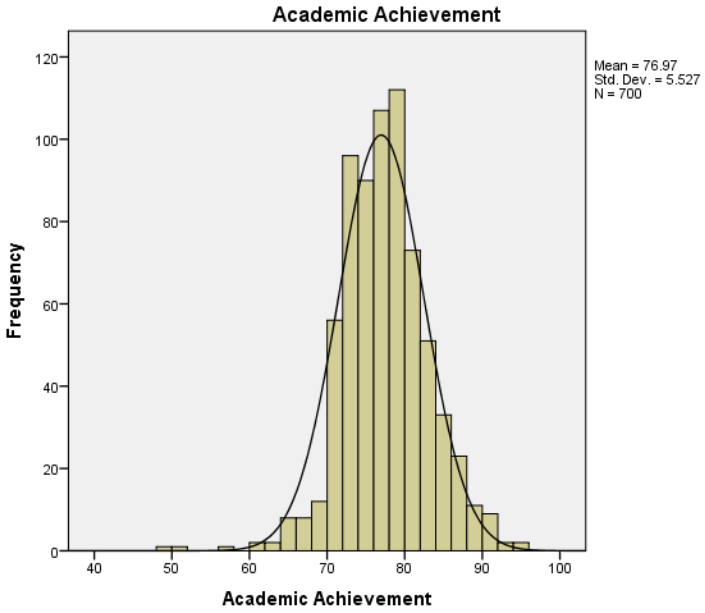
KIDS IN THIS CLASS

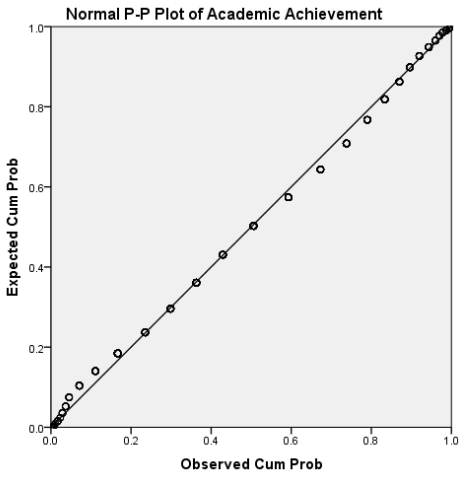


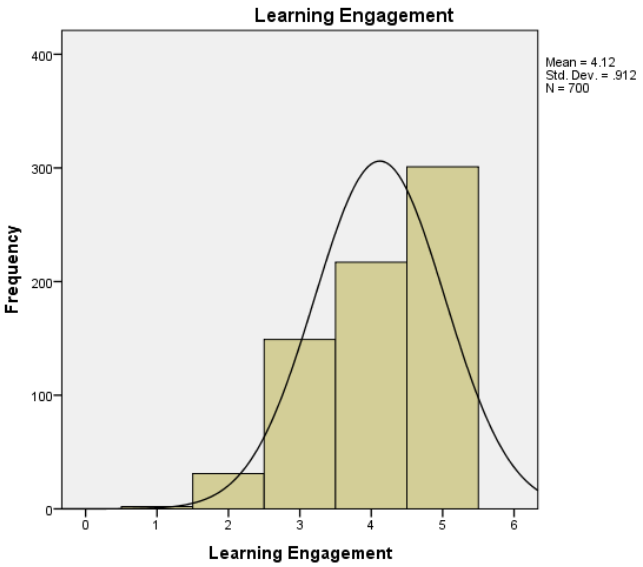


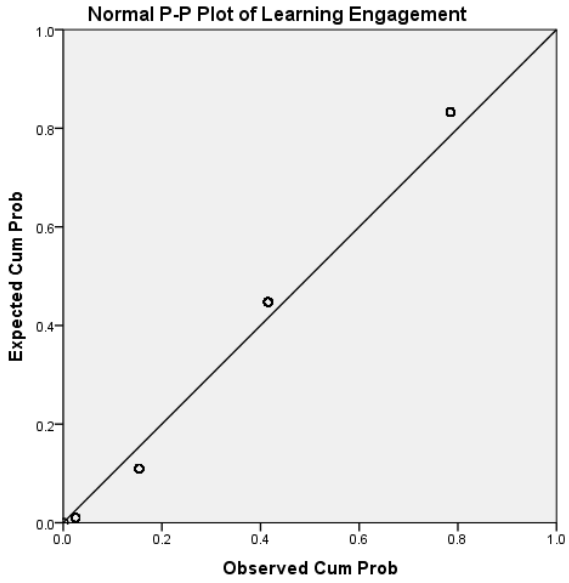
Appendix D3. Normality Test of Outcomes

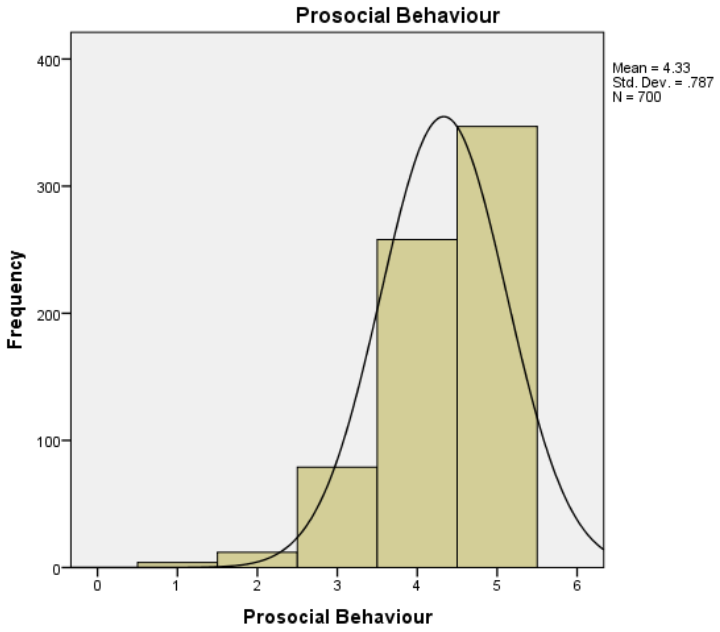
N = 700	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Academic Achievement	76.97	-.16		1.78	.19
Learning Engagement	4.12	-.68	.092	-.45	.19
Prosocial Behaviour	4.33	-1.15	.092	1.38	.19
Student-Teacher Relationships	4.00	-.59	.092 .092	1.10	.19
Student-Peer Relationships	4.16	-.91	.092	1.80	.19
My Relationships With This Student	4.57	-2.09	.092	4.41	.19
Valid N (listwise)					

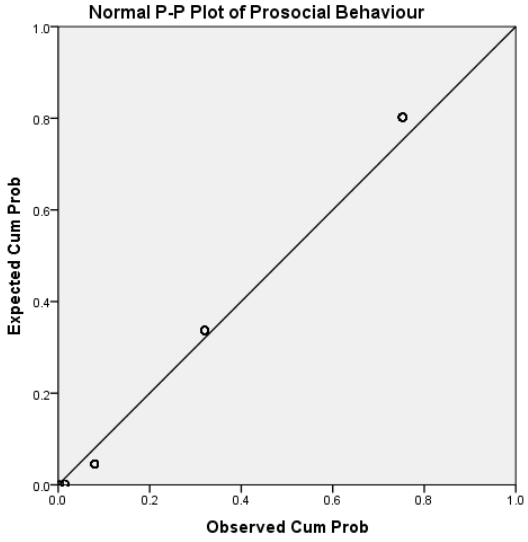


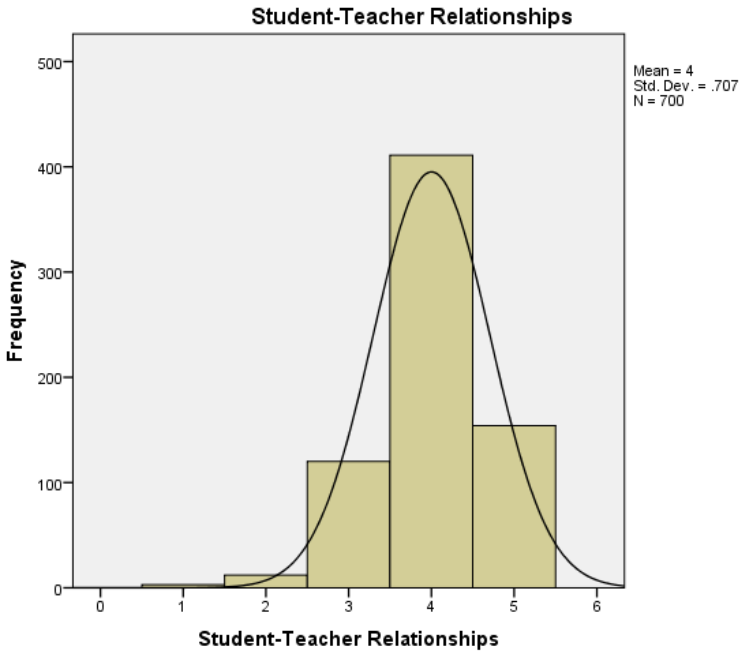


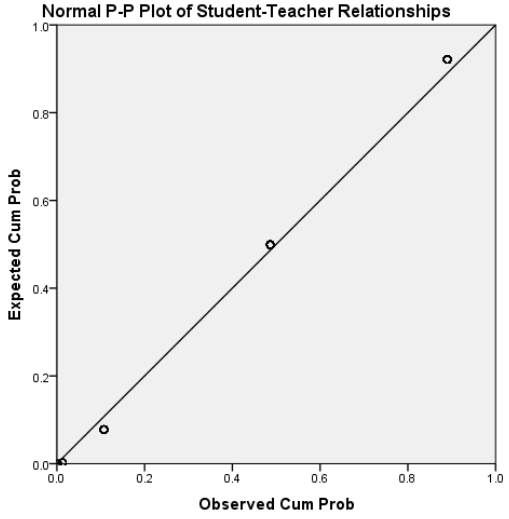

Learning Engagement
Mean = 4.12
Std. Dev. = .912
N = 700
Frequency
400
300
200
100
0
0
1
2
3
4
5
6
Learning Engagement

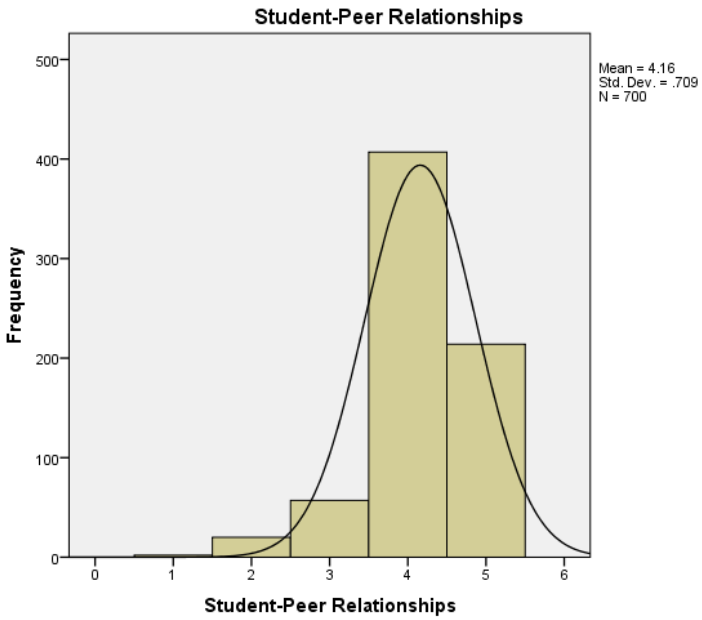

Normal P-P Plot of Learning Engagement
Expected Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
Observed Cum Prob

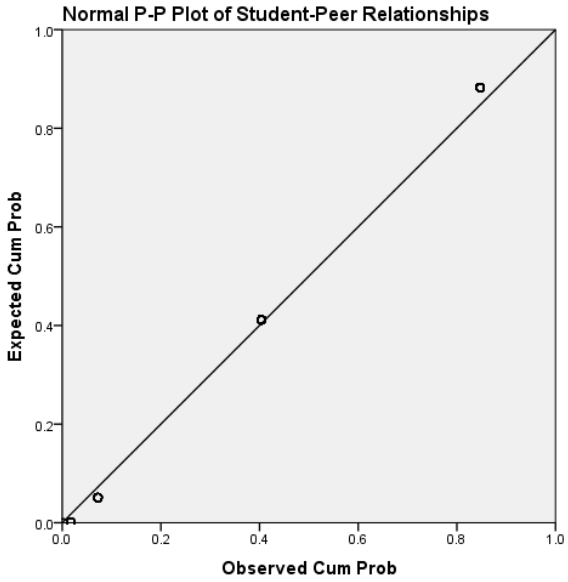

Prosocial Behaviour
Mean = 4.33
Std. Dev. = .787
N = 700
Frequency
400
300
200
100
0
0
1
2
3
4
5
6
Prosocial Behaviour

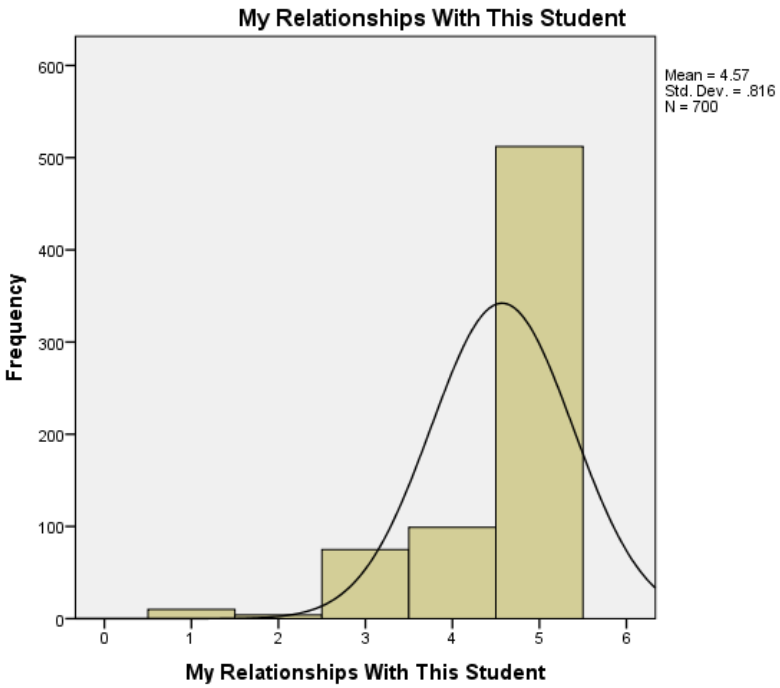

Normal P-P Plot of Prosocial Behaviour
Expected Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
Observed Cum Prob

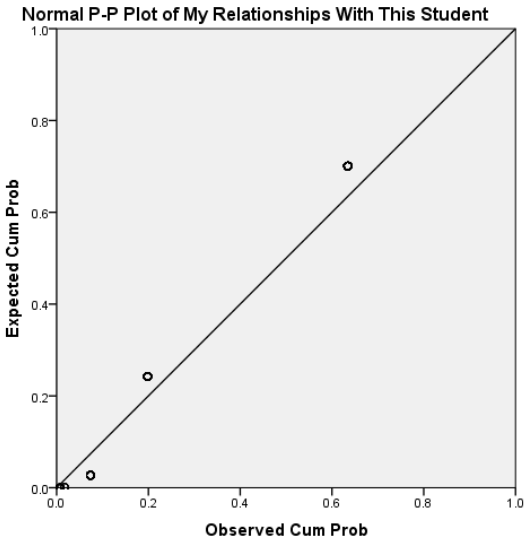

Student-Teacher Relationships
Mean = 4
Std. Dev. = .707
N = 700
Frequency
500
400
300
200
100
0
0
1
2
3
4
5
6
Student-Teacher Relationships


Normal P-P Plot of Student-Teacher Relationships
Expected Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
Observed Cum Prob


Student-Peer Relationships
Mean = 4.16
Std. Dev. = .709
N = 700
Frequency
500
400
300
200
100
0
0
1
2
3
4
5
6
Student-Peer Relationships


Normal P-P Plot of Student-Peer Relationships
Expected Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
Observed Cum Prob


My Relationships With This Student
Mean = 4.57
Std. Dev. = .816
N = 700
Frequency
600
500
400
300
200
100
0
0
1
2
3
4
5
6
My Relationships With This Student


Normal P-P Plot of My Relationships With This Student
Expected Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
Observed Cum Prob

Appendix E1. Pattern Matrix

Pattern Matrix[a]	Component							
	1	2	3	4	5	6	7	8
Believing In Me (BIM)								
I can do my work correctly in this class.	-.002	.070	.002	.144	**.551**	.009	.061	-.099
I can do as well as most kids in this class.	.066	.244	.034	.023	**.384**	-.062	.000	.026
I can help other kids understand the work in this class.	.061	.102	.111	.008	**.513**	.047	-.010	-.061
I can be a very good student in this class.	-.035	.013	.032	-.043	**.596**	.032	.045	-.013
I can do the hard work in this class.	-.059	-.032	-.119	-.050	**.587**	-.076	.030	.148
I can get good grades when I try hard in this class.	-.026	**.434**	-.037	.014	.362	-.037	.089	-.082
I know that I will learn what is taught in this class.	-.030	**.593**	-.130	-.007	.199	.057	-.045	.125
I expect to do very well when I work hard in this class.	.013	**.541**	-.094	.025	.130	.000	.105	.076
My Teachers (MT)								
My teacher listens carefully to me when I talk.	-.063	-.008	.086	.089	.036	-.052	**.478**	-.134
My teacher helps me when I need help.	-.068	.190	.026	-.020	-.209	-.012	**.487**	.120
My teacher respects me.	.044	-.072	.016	-.070	.155	.011	**.709**	-.097
My teacher likes having me in this class.	-.069	-.176	-.043	.052	.351	.051	**.548**	.016
My teacher makes it fun to be in this class.	.012	.056	.163	-.073	.039	.107	**.414**	-.079
My teacher thinks I do a good job in this class.	.057	.105	-.041	-.165	.448	-.149	**.172**	.227
My teacher is fair to me.	.043	.021	.023	.040	.042	.232	**.428**	-.051
Taking Charge (TC)								
I want to know more about the things we learn in this class.	.041	**.412**	-.009	.084	-.145	-.301	.295	.038
I work as hard as I can in this class.	-.019	**.639**	-.010	.026	-.031	.036	-.122	.017
I find and fix my mistakes before turning in my work.	-.006	**.508**	.084	-.009	.139	.065	-.088	-.132
I learn because I want to and not just because the teacher tells me to.	-.036	**.591**	.065	.022	.001	.158	-.032	-.125
When the work is hard in this class, I keep trying until I figure it out.	.009	**.580**	.062	-.086	-.025	-.046	.038	.192
I know the things I learn in this class will help me outside of school	.012	**.403**	.077	-.007	-.038	.059	.233	-.195

My Classmates (MC)								
I have a lot of fun with my friends in this class.	.094	-.085	.026	-.173	-.086	**.592**	.042	.114
My friends care about me a lot.	.035	-.075	-.004	.092	.095	**.462**	.049	.218
I have friends to eat lunch with and play with at recess.	-.025	.199	-.115	.000	-.217	**.581**	-.018	-.065
I have friends that like me the way I am.	-.054	-.029	-.013	.062	.085	**.573**	.085	-.013
My friends like me as much as they like other kids.	.047	.139	-.093	.163	.009	**.496**	.125	.116
I have friends who will stick up for me if someone picks on me.	-.045	.073	.091	-.152	.038	**.643**	-.098	-.067
Following Class Rules (FCR)								
Most kids work quietly and calmly in this class.	-.043	-.168	.055	.101	.195	.096	-.091	**.530**
Most kids in this class listen carefully when the teacher gives directions.	.040	.095	.131	.017	.067	-.027	-.179	**.470**
Most kids follow the rules in this class.	-.092	-.045	.007	.025	.026	.022	-.022	**.745**
Most kids in this class behave well even when the teacher isn't watching.	.006	.077	.095	.039	-.111	.031	-.036	**.640**
Talking With My Parents (TWP)								
My parents and I talk about my grades in this class.	.126	.025	**.534**	-.171	.121	-.009	.012	.090
My parents and I talk about what I am learning in this class.	-.029	-.042	**.677**	.024	-.017	.013	.125	.019
My parents and I talk about my homework in this class.	.039	.030	**.629**	-.010	-.093	-.079	.093	.130
My parents help me with my homework when I need it.	.023	-.115	**.606**	.102	-.075	.035	.180	.011
My parents and I talk about ways that I can do well in school.	.033	-.004	**.648**	-.036	.050	-.040	.045	.078
My parents and I talk about good things I have done in this class.	-.059	.035	**.615**	.074	.032	.021	-.013	-.036
My parents and I talk about problems I have in this class.	-.171	.105	**.562**	.004	-.043	.008	-.194	.024
I Worry That (IWT)								
I worry that other kids will do mean things to me.	**.687**	-.037	.039	.016	.093	-.041	-.085	-.068
I worry that other kids will tell lies about me	**.729**	-.004	.060	.032	.086	-.029	-.114	-.148
I worry that other kids will hurt me on purpose.	**.721**	.000	.034	.082	.065	.015	-.081	-.045

I worry that other kids will say means things about me.	**.714**	.014	.042	.147	.028	-.025	-.118	-.104
I worry that other kids will leave me out on purpose	**.750**	.031	-.100	-.186	-.042	-.022	.034	.051
I worry that other kids will try to make my friends stop liking me.	**.765**	-.038	-.014	-.086	-.057	.038	.042	.090
I worry that other kids will make me do things I don't want to do.	**.572**	-.049	-.067	.055	-.039	.007	.217	-.005
I worry that other kids will take things away from me.	**.525**	.042	-.038	.073	-.244	.115	.083	.135
Kids In This Class (KITC)								
Kids in this class argue a lot with each other.	-.058	-.042	.026	**.734**	-.111	-.052	.184	-.128
Kids in this class pick on or make fun of each other.	-.047	-.008	-.011	**.764**	.055	-.031	-.004	.049
Kids in this class tease each other or call each other names.	.077	.010	-.006	**.617**	.131	-.011	-.109	.109
Kids in this class in this class hit or push each other.	.059	.050	.040	**.633**	-.015	.032	-.113	.047
Kids in this class in this class say bad things about each other.	.063	.027	-.035	**.654**	-.049	-.074	.023	.129

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 7 iterations.

Appendix E2. Component Matrix

Component Matrix[a]		
	Component	
	1	2
TC_1	.400	
TC_2	.204	.727
TC_3	.552	
TC_4	.605	
TC_5	.672	
TC_6	.649	
TC_7	.579	
TC_8	.285	.657

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

Component Matrix[a]		
	Component	
	1	2
FCR_1	.597	-.420
FCR_2	.574	
FCR_3	.713	
FCR_4	.573	**.413**
FCR_5	.336	**.783**
FCR_6	.630	-.286

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

Component Matrix[a]	
	Component
	1
BIM_1	.575
BIM_2	.571
BIM_3	.587
BIM_4	.571
BIM_5	.484
BIM_6	.654
BIM_7	.651
BIM_8	.629

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Appendix E3. Cronbach's Alphas of Classroom Climate Subscales

Cronbach's Alphas of Classroom Climate Subscales

Subscales	Cronbach's Alpha
Believing In Me (BIM)	.73
My Teacher (MT)	.64
Taking Charge (TC)	.62
My Classmates (MC)	.66
Following Class Rules (FCR)	.60
Talking With My Parents (TWP)	.75
I Worry That (IWT)	.85
Kids In This Class (KITC)	.76

Appendix F. Descriptive of Outcomes

Statistics

N= 700	Academic Achievement	Learning Engagement	Prosocial Behaviour	Student-Teacher Relationships	Student-Peer Relationships	My Relationships With This Student
Mean	76.97	4.12	4.33	4.00	4.16	4.57
Std. Deviation	5.53	.92	.79	.71	.71	.82

Appendix G1. Final Estimation of Fixed Effects of Academic Achievement Level 1- Model 1

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	64.24	3.52	18.25	23	<0.001
For GND slope, β_1					
INTRCPT2, γ_{10}	-1.04	0.57	-1.82	668	0.069
For AG slope, β_2					
INTRCPT2, γ_{20}	-0.11	0.19	-0.57	668	0.567
For L_ENG slope, β_3					
INTRCPT2, γ_{30}	1.42	0.10	3.56	668	<0.001
For P_BHV slope, β_4					
INTRCPT2, γ_{40}	0.79	0.23	3.39	668	<0.001
For ST_REL slope, β_5					
INTRCPT2, γ_{50}	0.84	0.44	1.92	668	0.055
For SP_REL slope, β_6					
INTRCPT2, γ_{60}	-0.01	0.25	-0.06	668	0.955
For MYREL slope, β_7					
INTRCPT2, γ_{70}	-0.39	0.59	-0.66	668	0.513
For CLS_CLM slope, β_8					
INTRCPT2, γ_{80}	1.23	0.50	2.45	668	0.014
Academic Achievement: Level 1- Model 1					

Appendix G2. Final Estimation of Fixed Effects of Academic Achievement Level 1- Model 2

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	62.91	2.14	29.45	23	<0.001
For GND slope, β_1					
INTRCPT2, γ_{10}	-1.05	0.56	-1.89	671	0.059
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	1.40	0.39	3.59	671	<0.001
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	0.73	0.21	3.44	671	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.80	0.43	1.85	671	0.064
For CLS_CLM slope, β_5					
INTRCPT2, γ_{50}	1.21	0.51	2.37	671	0.018
Academic Achievement: Level 1- Model 2					

Appendix G3. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 1

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	68.43	8.77	7.80	13	<0.001
CLSSIZE, γ_{01}	-0.03	0.10	-0.28	13	0.787
YRLV, γ_{02}	1.87	0.32	5.86	13	<0.001
STREAMED, γ_{03}	4.19	0.85	4.94	13	<0.001
ACHCAT, γ_{04}	-0.74	0.63	-1.16	13	0.267
HISTREAM, γ_{05}	2.11	1.67	1.27	13	0.228
PROPFEM, γ_{06}	-9.49	2.41	-3.94	13	0.002
MEANLRNE, γ_{07}	-0.09	0.52	-0.17	13	0.866
MEANPROS, γ_{08}	-2.02	1.16	-1.74	13	0.105
MEANOALL, γ_{09}	-4.11	3.14	-1.31	13	0.213
TCHEXP, γ_{010}	-0.16	0.12	-1.28	13	0.222
For GND slope, β_1					
INTRCPT2, γ_{10}	-1.01	0.55	-1.82	671	0.070
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	1.45	0.39	3.71	671	<0.001
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	0.79	0.21	3.78	671	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.75	0.42	1.76	671	0.079
For CLS_CLM slope, β_5					
INTRCPT2, γ_{50}	1.18	0.508384	2.32	671	0.020
Academic Achievement: Level 2- Model 1					

Appendix G4. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 2

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	67.45	4.64	14.53	17	<0.001
YRLV, γ_{01}	1.80	0.43	4.14	17	<0.001
STREAMED, γ_{02}	5.10	0.97	5.28	17	<0.001
PROPFEM, γ_{03}	-9.07	2.14	-4.24	17	<0.001
MEANPROS, γ_{04}	-2.48	0.99	-2.51	17	0.022
MEANOALL, γ_{05}	-2.88	1.63	-1.77	17	0.095
TCHEXP, γ_{06}	-0.17	0.10	-1.8	17	0.084
For GND slope, β_1					
INTRCPT2, γ_{10}	-1.01	0.55	-1.82	671	0.069
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	1.46	0.39	3.78	671	<0.001
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	0.80	0.21	3.79	671	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.72	0.42	1.72	671	0.089
For CLS_CLM slope, β_5					
INTRCPT2, γ_{50}	1.18	0.51	2.33	671	0.020
Academic Achievement: Level 2- Model 2					

Appendix G5. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 3

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	69.54	15.13	4.60	17	<0.001
YRLV, γ_{01}	2.00	0.49	4.06	17	<0.001
STREAMED, γ_{02}	5.21	1.04	5.02	17	<0.001
PROPFEM, γ_{03}	8.80	13.05	0.68	17	0.509
MEANPROS, γ_{04}	-5.13	3.89	-1.32	17	0.204
MEANOALL, γ_{05}	-2.84	8.19	-0.35	17	0.733
TCHEXP, γ_{06}	-0.49	0.32	-1.56	17	0.137
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.95	0.51	-1.86	667	0.064
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	-0.07	3.60	-0.02	667	0.985
PROPFEM, γ_{21}	-4.38	3.29	-1.33	667	0.183
MEANPROS, γ_{22}	0.62	0.91	0.68	667	0.500
MEANOALL, γ_{23}	0.16	1.99	0.08	667	0.938
TCHEXP, γ_{24}	0.08	0.08	1.07	667	0.284
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	0.87	0.23	3.80	667	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	1.03	0.33	3.10	667	0.002
For CLS_CLM slope, β_5					
INTRCPT2, γ_{50}	1.21	0.49	2.47	667	0.014
Academic Achievement: Level 2- Model 3					

Appendix G6. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 4

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	63.95	13.04	4.91	18	<0.001
YRLV, γ_{01}	2.07	0.47	4.37	18	<0.001
STREAMED, γ_{02}	5.08	1.01	5.05	18	<0.001
PROPFEM, γ_{03}	10.04	10.56	0.95	18	0.355
MEANPROS, γ_{04}	-5.21	3.72	-1.40	18	0.178
TCHEXP, γ_{05}	-0.51	0.31	-1.67	18	0.112
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.95	0.51	-1.86	668	0.064
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	0.17	3.35	0.051	668	0.959
PROPFEM, γ_{21}	-4.47	2.59	-1.73	668	0.084
MEANPROS, γ_{22}	0.63	0.88	0.72	668	0.472
TCHEXP, γ_{23}	0.08	0.08	1.12	668	0.262
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	0.88	0.23	3.80	668	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	1.03	0.34	3.09	668	0.002
For OVERALL slope, β_5					
INTRCPT2, γ_{50}	1.17	0.48	2.44	668	0.015
Academic Achievement: Level 2- Model 4					

Appendix G7. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 5

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	57.44	4.50	12.78	19	<0.001
YRLV, γ_{01}	2.14	0.51	4.16	19	<0.001
STREAMED, γ_{02}	4.85	0.98	4.92	19	<0.001
MEANPROS, γ_{03}	-2.48	1.04	-2.38	19	0.028
TCHEXP, γ_{04}	-0.55	0.30	-1.82	19	0.085
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.98	0.54	-1.83	669	0.068
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	1.97	0.69	2.87	669	0.004
PROPFEM, γ_{21}	-2.71	0.87	-3.12	669	0.002
TCHEXP, γ_{22}	0.10	0.08	1.27	669	0.206
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	0.85	0.24	3.65	669	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.94	0.37	2.56	669	0.011
For CLS_CLM slope, β_5					
INTRCPT2, γ_{50}	1.11	0.49	2.29	669	0.022
Academic Achievement: Level 2- Model 5					

Appendix G8. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 6

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	54.85	5.00	10.97	19	<0.001
YRLV, γ_{01}	2.13	0.54	3.95	19	<0.001
STREAMED, γ_{02}	4.66	0.96	4.90	19	<0.001
MEANPROS, γ_{03}	-2.33	1.02	-2.28	19	0.034
TCHEXP, γ_{04}	-0.19	0.10	-1.85	19	0.080
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.98	0.54	-1.80	670	0.072
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	2.85	0.77	3.72	670	<0.001
PROPFEM, γ_{21}	-3.01	1.02	-2.94	670	0.003
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	0.795534	0.212036	3.752	670	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.799577	0.393703	2.031	670	0.043
For CLS_CLM slope, β_5					
INTRCPT2, γ_{50}	1.103951	0.496607	2.223	670	0.027
Academic Achievement: Level 2- Model 6					

Appendix G9. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 7

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	76.96	11.40	6.75	19	<0.001
YRLV, γ_{01}	2.20	0.49	4.52	19	<0.001
STREAMED, γ_{02}	10.51	2.64	3.98	19	<0.001
MEANPROS, γ_{03}	-8.11	3.18	-2.55	19	0.020
TCHEXP, γ_{04}	-0.64	0.25	-2.50	19	0.022
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.91	0.52	-1.74	665	0.082
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	3.24	1.34	2.41	665	0.016
PROPFEM, γ_{21}	-4.02	2.29	-1.76	665	0.080
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	-4.39	2.91	-1.51	665	0.132
STREAMED, γ_{31}	-1.28	0.55	-2.33	665	0.020
PROPFEM, γ_{32}	1.16	1.71	0.67	665	0.501
MEANPROS, γ_{33}	1.20	0.69	1.72	665	0.085
MEANOALL, γ_{34}	-0.15	0.53	-0.28	665	0.783
TCHEXP, γ_{35}	0.10	0.06	1.68	665	0.093
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	1.09	0.33	3.29	665	0.001
For CLS_CLM slope, β_5					
INTRCPT2, γ_{50}	1.09	0.49	2.23	665	0.026

Academic Achievement: Level 2- Model 7

Appendix G10. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 8

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	76.24	11.24	6.79	19	<0.001
YRLV, γ_{01}	2.22	0.50	4.42	19	<0.001
STREAMED, γ_{02}	10.41	2.57	4.04	19	<0.001
MEANPROS, γ_{03}	-8.00	3.15	-2.54	19	0.020
TCHEXP, γ_{04}	-0.61	0.24	-2.56	19	0.019
For GND slope, β_1					
INTRCPT2, γ_{10}	**-0.89**	**0.51**	**-1.75**	**667**	**0.080**
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	2.71	0.66	4.08	667	<0.001
PROPFEM, γ_{21}	-2.88	0.85	-3.40	667	<0.001
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	**-3.96**	**2.60**	**-1.52**	**667**	**0.128**
STREAMED, γ_{31}	-1.28	0.55	-2.33	667	0.020
MEANPROS, γ_{32}	1.17	0.69	1.70	667	0.090
TCHEXP, γ_{33}	0.10	0.056	1.74	667	0.083
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	**1.09**	**0.33**	**3.25**	**667**	**0.001**
For CLS_CLM slope, β_5					
INTRCPT2, γ_{50}	**1.07**	**0.47**	**2.27**	**667**	**0.024**

Academic Achievement Level 2 Model 8 (the fit model), Deviance = 3759.91; iterations = 6
The bold prints indicate level 1 variables

Appendix G11. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 9

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	76.56	11.52	6.65	19	<0.001
YRLV, γ_{01}	2.25	0.53	4.29	19	<0.001
STREAMED, γ_{02}	7.32	2.14	3.42	19	0.003
MEANPROS, γ_{03}	-7.84	2.89	-2.71	19	0.014
TCHEXP, γ_{04}	-0.59	0.20	-2.93	19	0.009
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.89	0.51	-1.74	23	0.095
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	2.91	0.60	4.85	621	<0.001
PROPFEM, γ_{21}	-3.15	0.79	-3.96	621	<0.001
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	-4.54	2.61	-1.74	621	0.083
STREAMED, γ_{31}	-0.55	0.44	-1.252	621	0.211
MEANPROS, γ_{32}	1.21	0.68	1.78	621	0.075
TCHEXP, γ_{33}	0.09	0.05	1.75	621	0.080
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	1.18	0.39	3.04	23	0.006
For CLS_CLM slope, β_5					
INTRCPT2, γ_{50}	1.039	0.44	2.38	621	0.018

Academic Achievement: Level 2- Model 9

Appendix G12. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 10

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	98.53	14.55	6.72	19	<0.001
YRLV, γ_{01}	2.14	0.53	4.05	19	<0.001
STREAMED, γ_{02}	5.23	1.02	5.12	19	<0.001
MEANPROS, γ_{03}	-12.98	3.87	-3.35	19	0.003
TCHEXP, γ_{04}	-0.34	0.34	-0.92	19	0.371
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.95	0.54	-1.76	23	0.091
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	4.43	1.48	3.00	622	0.003
PROPFEM, γ_{21}	-6.46	2.75	-2.35	622	0.019
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	-3.80	3.39	-1.12	622	0.263
MEANPROS, γ_{31}	0.91	0.8	1.13	622	0.259
TCHEXP, γ_{32}	0.11	0.05	2.08	622	0.038
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	-6.16	3.36	-1.84	19	0.082
PROPFEM, γ_{41}	3.98	2.71	1.47	19	0.157
MEANPROS, γ_{42}	1.61	0.82	1.96	19	0.065
MEANOALL, γ_{43}	-0.38	0.60	-0.63	19	0.534
TCHEXP, γ_{44}	-0.09	0.07	-1.16	19	0.260
For CLS_CLM slope, β_5					
INTRCPT2, γ_{50}	1.084	0.444473	2.44	622	0.015

Academic Achievement: Level 2- Model 10

Appendix G13. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 11

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	88.83	12.60	7.05	20	<0.001
YRLV, γ_{01}	2.3	0.59	3.94	20	<0.001
STREAMED, γ_{02}	4.63	0.99	4.66	20	<0.001
MEANPROS, γ_{03}	-11.45	3.34	-3.43	20	0.003
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.90	0.53	-1.711	23	0.101
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	2.90	0.64	4.53	623	<0.001
PROPFEM, γ_{21}	-3.04	0.86	-3.53	623	<0.001
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	1.01	0.25	3.10	623	<0.001
TCHEXP, γ_{31}	-0.01	0.03	-0.44	623	0.658
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	-8.16	3.35	-2.44	22	0.023
MEANPROS, γ_{41}	2.17	0.81	2.70	22	0.013
For CLS_CLM slope, β_5					
INTRCPT2, γ_{50}	1.12	0.44	2.54	623	0.011
Academic Achievement: Level 2- Model 11					

Appendix G14. Final Estimation of Fixed Effects of Academic Achievement Level 2- Model 12

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	88.48	12.97	6.823	20	<0.001
YRLV, γ_{01}	2.368	0.55	4.335	20	<0.001
STREAMED, γ_{02}	4.59	1.04	4.409	20	<0.001
MEANPROS, γ_{03}	-11.47	3.34	-3.432	20	0.003
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.90	0.53	-1.71	23	0.100
For L_ENG slope, β_2					
INTRCPT2, γ_{20}	2.91	0.63	4.58	624	<0.001
PROPFEM, γ_{21}	-3.05	0.84	-3.62	624	<0.001
For P_BHV slope, β_3					
INTRCPT2, γ_{30}	0.923	0.19	4.89	624	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	-8.09	3.40	-2.38	22	0.026
MEANPROS, γ_{41}	2.16	0.82	2.65	22	0.015
For OVERALL slope, β_5					
INTRCPT2, γ_{50}	1.11	0.45	2.50	624	0.013
Academic Achievement: Level 2- Model 12					

Appendix G15. Final Estimation of Fixed Effects of Learning Engagement Level 1- Model 1

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-1.52	0.84	-1.80	23	0.085
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.05	0.06	-0.92	668	0.356
For AG slope, β_2					
INTRCPT2, γ_{20}	-0.02	0.03	-0.63	668	0.530
For ACHIEVslope, β_3					
INTRCPT2, γ_{30}	0.03	0.01	3.92	668	<0.001
For P_BHV slope, β_4					
INTRCPT2, γ_{40}	0.43	0.06	7.22	668	<0.001
For ST_REL slope, β_5					
INTRCPT2, γ_{50}	0.23	0.04	5.26	668	<0.001
For SP_REL slope, β_6					
INTRCPT2, γ_{60}	0.10	0.05	1.95	668	0.052
For MYREL slope, β_7					
INTRCPT2, γ_{70}	0.17	0.17	0.99	668	0.324
For OVERALL slope, β_8					
INTRCPT2, γ_{80}	0.025	0.08	0.31	668	0.755
Learning Engagement: Level 1- Model 1					

Appendix G16. Final Estimation of Fixed Effects of Learning Engagement Level 1- Model 2

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-1.93	0.61	-3.177	23	0.004
For ACHIEV slope, β_1					
INTRCPT2, γ_{10}	0.03	0.01	4.018	672	<0.001
For P_BHV slope, β_2					
INTRCPT2, γ_{20}	0.47	0.05	8.788	672	<0.001
For ST_REL slope, β_3					
INTRCPT2, γ_{30}	0.24	0.05	5.21	672	<0.001
For SP_REL slope, β_4					
INTRCPT2, γ_{40}	0.11	0.05	2.24	672	0.026
Learning Engagement: Level 1- Model 2					

Appendix G17. Final Estimation of Fixed Effects of Learning Engagement Level 2- Model 1

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-3.03	1.58	-1.92	14	0.076
CLSSIZE, γ_{01}	0.013	0.01	1.04	14	0.315
YRLV, γ_{02}	-0.25	0.06	-3.96	14	0.001
STREAMED, γ_{03}	-0.30	0.181	-1.70	14	0.111
ACHCAT, γ_{04}	0.12	0.17	0.75	14	0.465
HISTREAM, γ_{05}	0.147	0.22	0.68	14	0.508
PROPFEM, γ_{06}	1.98	0.43	4.57	14	<0.001
MEANPROS, γ_{07}	0.26	0.14	1.90	14	0.079
MEANOALL, γ_{08}	0.22	0.48	0.45	14	0.659
TCHEXP, γ_{09}	0.01	0.01	0.58	14	0.571
For ACHIEV slope, β_1					
INTRCPT2, γ_{10}	0.04	0.01	4.35	672	<0.001
For P_BHV slope, β_2					
INTRCPT2, γ_{20}	0.45	0.05	8.66	672	<0.001
For ST_REL slope, β_3					
INTRCPT2, γ_{30}	0.24	0.05	5.25	672	<0.001
For SP_REL slope, β_4					
INTRCPT2, γ_{40}	0.11	0.05	2.27	672	0.023
Learning Engagement: Level 2- Model 1					

Appendix G18. Final Estimation of Fixed Effects of Learning Engagement Level 2- Model 2

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-2.58	1.17	-2.21	16	0.042
CLSSIZE, γ_{01}	0.01	0.01	1.32	16	0.204
YRLV, γ_{02}	-0.25	0.07	-3.80	16	0.002
STREAMED, γ_{03}	-0.32	0.16	-2.03	16	0.060
ACHCAT, γ_{04}	0.159	0.13	1.18	16	0.257
HISTREAM, γ_{05}	0.17	0.21	0.82	16	0.424
PROPFEM, γ_{06}	1.90	0.43	4.46	16	<0.001
MEANPROS, γ_{07}	0.27	0.15	1.84	16	0.085
For ACHIEV slope, β_1					
INTRCPT2, γ_{10}	0.038	0.01	4.33	672	<0.001
For P_BHV slope, β_2					
INTRCPT2, γ_{20}	0.45	0.05	8.64	672	<0.001
For ST_REL slope, β_3					
INTRCPT2, γ_{30}	0.24	0.05	5.31	672	<0.001
For SP_REL slope, β_4					
INTRCPT2, γ_{40}	0.11	0.05	2.27	672	0.023
Learning Engagement: Level 2- Model 2					

Appendix G19. Final Estimation of Fixed Effects of Learning Engagement Level 2- Model 3

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-1.36	1.15	-1.18	19	0.253
YRLV, γ_{01}	-0.33	0.07	-5.04	19	<0.001
STREAMED, γ_{02}	-0.08	0.12	-0.63	19	0.534
PROPFEM, γ_{03}	1.80	0.43	4.22	19	<0.001
MEANPROS, γ_{04}	0.25	0.15	1.63	19	0.120
For ACHIEVslope, β_1					
INTRCPT2, γ_{10}	0.04	0.01	4.29	672	<0.001
For P_BHV slope, β_2					
INTRCPT2, γ_{20}	0.45	0.05	8.58	672	<0.001
For ST_REL slope, β_3					
INTRCPT2, γ_{30}	0.24	0.05	5.14	672	<0.001
For SP_REL slope, β_4					
INTRCPT2, γ_{40}	0.11	0.05	2.28	672	0.023
Learning Engagement: Level 2- Model 3					

Appendix G20. Final Estimation of Fixed Effects of Learning Engagement Level 2- Model 4

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-1.50	1.04	-1.44	20	0.165
YRLV, γ_{01}	-0.33	0.07	-5.03	20	<0.001
PROPFEM, γ_{02}	1.86	0.43	4.31	20	<0.001
MEANPROS, γ_{03}	0.28	0.14	1.99	20	0.060
For ACHIEV slope, β_1					
INTRCPT2, γ_{10}	0.04	0.01	4.31	672	<0.001
For P_BHV slope, β_2					
INTRCPT2, γ_{20}	0.45	0.05	8.65	672	<0.001
For ST_REL slope, β_3					
INTRCPT2, γ_{30}	0.24	0.05	5.10	672	<0.001
For SP_REL slope, β_4					
INTRCPT2, γ_{40}	0.12	0.05	2.34	672	0.018
Learning Engagement: Level 2- Model 4; Deviance = 1230.85; Iteration = 3					

Appendix G21. Final Estimation of Fixed Effects of Learning Engagement Level 2- Model 5

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	4.22	2.63	1.60	20	0.125
YRLV, γ_{01}	-0.52	0.28	-1.86	20	0.078
PROPFEM, γ_{02}	1.57	1.27	1.24	20	0.230
MEANPROS, γ_{03}	-0.58	0.07	-8.06	20	<0.001
For ACHIEV slope, β_1					
INTRCPT2, γ_{10}	0.03	0.01	4.58	649	<0.001
For P_BHV slope, β_2					
INTRCPT2, γ_{20}	-1.02	0.52	-1.97	16	0.066
CLSSIZE, γ_{21}	0.00	0.00	1.37	16	0.189
YRLV, γ_{22}	0.10	0.06	1.64	16	0.121
STREAMED, γ_{23}	-0.05	0.01	-3.62	16	0.002
PROPFEM, γ_{24}	-0.21	0.27	-0.78	16	0.446
MEANLRNE, γ_{25}	0.19	0.01	13.09	16	<0.001
MEANOALL, γ_{26}	0.02	0.03	0.57	16	0.574
TCHEXP, γ_{27}	0.00	0.00	1.19	16	0.251
For ST_REL slope, β_3					
INTRCPT2, γ_{30}	0.23	0.047451	4.88	649	<0.001
For SP_REL slope, β_4					
INTRCPT2, γ_{40}	0.09	0.048671	1.83	649	0.068
Learning Engagement: Level 2- Model 5					

Appendix G22. Final Estimation of Fixed Effects of Learning Engagement Level 2- Model 6

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	1.36	0.69	1.97	20	0.062
YRLV, γ_{01}	-0.10	0.03	-2.96	20	0.008
PROPFEM, γ_{02}	0.55	0.14	4.02	20	<0.001
MEANPROS, γ_{03}	-0.59	0.08	-7.71	20	<0.001
For ACHIEVslope, β_1					
INTRCPT2, γ_{10}	0.03	0.01	4.40	649	<0.001
For P_BHV slope, β_2					
INTRCPT2, γ_{20}	-0.25	0.07	-3.42	21	0.003
STREAMED, γ_{21}	-0.04	0.01	-3.12	21	0.005
MEANLRNE, γ_{22}	0.19	0.01	15.58	21	<0.001
For ST_REL slope, β_3					
INTRCPT2, γ_{30}	0.23	0.05	4.96	649	<0.001
For SP_REL slope, β_4					
INTRCPT2, γ_{40}	0.092	0.05	1.82	649	0.069
Learning Engagement: Level 2- Model 6					

Appendix G23.Final Estimation of Fixed Effects of Prosocial Behaviour Level 1- Model 1

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	0.50	0.43	1.17	23	0.253
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.16	0.05	-3.33	668	<0.001
For AG slope, β_2					
INTRCPT2, γ_{20}	0.00	0.02	0.04	668	0.971
For ACHIEVslope, β_3					
INTRCPT2, γ_{30}	0.01	0.00	2.84	668	0.005
For L_ENG slope, β_4					
INTRCPT2, γ_{40}	0.30	0.05	6.14	668	<0.001
For ST_REL slope, β_5					
INTRCPT2, γ_{50}	0.25	0.08	3.02	668	0.003
For SP_REL slope, β_6					
INTRCPT2, γ_{60}	0.10	0.04	2.28	668	0.023
For MYREL slope, β_7					
INTRCPT2, γ_{70}	0.46	0.08	5.70	668	<0.001
For OVERALL slope, β_8					
INTRCPT2, γ_{80}	0.02	0.09	0.23	668	0.820
Prosocial Behaviour: Level 1- Model 1					

Appendix G24. Final Estimation of Fixed Effects of Prosocial Behaviour Level 1- Model 2

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	0.53	0.34	1.55	23	0.135
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.16	0.05	-3.30	670	0.001
For ACHIEV slope, β_2					
INTRCPT2, γ_{20}	0.01	0.00	2.73	670	0.007
For L_ENG slope, β_3					
INTRCPT2, γ_{30}	0.30	0.05	6.20	670	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.25	0.08	3.02	670	0.003
For SP_REL slope, β_5					
INTRCPT2, γ_{50}	0.10	0.04	2.28	670	0.023
For MYREL slope, β_6					
INTRCPT2, γ_{60}	0.46	0.08	5.64	670	<0.001
Prosocial Behaviour: Level 1- Model 2					

Appendix G25. Final Estimation of Fixed Effects of Prosocial Behaviour Level 2- Model 1

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	1.26	2.04	0.62	15	0.545
CLSSIZE, γ_{01}	-0.01	0.01	-0.87	15	0.400
YRLV, γ_{02}	0.09	0.06	1.51	15	0.152
STREAMED, γ_{03}	-0.03	0.16	-0.19	15	0.852
PROPFEM, γ_{04}	-0.04	0.35	-0.13	15	0.900
MEANACH, γ_{05}	-0.02	0.02	-0.67	15	0.515
MEANLRNE, γ_{06}	0.10	0.11	1.86	15	0.083
MEANOALL, γ_{07}	-0.58	0.28	-2.10	15	0.053
TCHEXP, γ_{08}	0.01	0.01	0.67	15	0.512
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.17	0.05	-3.38	670	<0.001
For ACHIEV slope, β_2					
INTRCPT2, γ_{20}	0.02	0.00	3.35	670	<0.001
For L_ENG slope, β_3					
INTRCPT2, γ_{30}	0.29	0.05	5.83	670	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.25	0.08	2.99	670	0.003
For SP_REL slope, β_5					
INTRCPT2, γ_{50}	0.09	0.04	2.16	670	0.031
For MYREL slope, β_6					
INTRCPT2, γ_{60}	0.47	0.08	5.80	670	<0.001

Prosocial Behaviour: Level 2- Model 1

Appendix G26. Final Estimation of Fixed Effects of Prosocial Behaviour Level 2- Model 2

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	**1.10**	**0.80**	**1.37**	**21**	**0.185**
MEANLRNE, γ_{01}	**0.19**	**0.11**	**1.72**	**21**	**0.100**
MEANOALL, γ_{02}	**-0.79**	**0.25**	**-3.20**	**21**	**0.004**
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.17	0.05	-3.38	670	<0.001
For ACHIEV slope, β_2					
INTRCPT2, γ_{20}	0.01	0.00	3.29	670	0.001
For L_ENG slope, β_3					
INTRCPT2, γ_{30}	0.29	0.05	5.99	670	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.25	0.08	3.01	670	0.003
For SP_REL slope, β_5					
INTRCPT2, γ_{50}	0.10	0.04	2.32	670	0.020
For MYREL slope, β_6					
INTRCPT2, γ_{60}	0.47	0.08	5.62	670	<0.001

Prosocial Behaviour: Level 2- Model 2; Deviance = 981.44; Iteration = 5. The bold prints indicate level 2 variables.

Appendix G27. Final Estimation of Fixed Effects of Prosocial Behaviour Level 2- Model 3

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	2.35	0.37	6.31	21	<0.001
MEANLRNE, γ_{01}	-0.27	0.07	-3.91	21	<0.001
MEANOALL, γ_{02}	-0.17	0.09	-1.83	21	0.081
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.18	0.05	-3.42	647	<0.001
For ACHIEV slope, β_2					
INTRCPT2, γ_{20}	0.01	0.00	2.81	647	0.005
For L_ENG slope, β_3					
INTRCPT2, γ_{30}	-0.41	0.11	-3.83	21	<0.001
PROPFEM, γ_{31}	0.14	0.04	3.84	21	<0.001
MEANPROS, γ_{32}	0.16	0.02	8.00	21	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.19	0.08	2.45	647	0.014
For SP_REL slope, β_5					
INTRCPT2, γ_{50}	0.08	0.04	2.23	647	0.026
For MYREL slope, β_6					
INTRCPT2, γ_{60}	0.46	0.08	5.51	647	<0.001
Prosocial Behaviour: Level 2- Model 3					

Appendix G28. Final Estimation of Fixed Effects of Prosocial Behaviour Level 2- Model 4

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-1.51	1.92	-0.79	21	0.441
MEANLRNE, γ_{01}	0.79	0.48	1.66	21	0.113
MEANOALL, γ_{02}	-0.42	0.12	-3.55	21	0.002
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.18	0.05	-3.54	624	<0.001
For ACHIEV slope, β_2					
INTRCPT2, γ_{20}	0.01	0.00	3.26	624	0.001
For L_ENG slope, β_3					
INTRCPT2, γ_{30}	-0.03	0.16	-0.19	21	0.853
PROPFEM, γ_{31}	-0.70	0.30	-2.24	21	0.036
MEANPROS, γ_{32}	0.15	0.02	7.59	21	<0.001
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.80	0.44	1.81	21	0.084
PROPFEM, γ_{41}	0.79	0.31	2.58	21	0.017
MEANLRNE, γ_{42}	-0.25	0.12	-2.24	21	0.036
For SP_REL slope, β_5					
INTRCPT2, γ_{50}	0.10	0.03	3.21	624	<0.001
For MYREL slope, β_6					
INTRCPT2, γ_{60}	0.40	0.08	4.79	624	<0.001
Prosocial Behaviour: Level 2- Model 4					

Appendix.G29. Final Estimation of Fixed Effects of Prosocial Behaviour Level 2- Model 5

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-2.61	1.73	-1.51	21	0.145
MEANLRNE, γ_{01}	1.04	0.42	2.47	21	0.022
MEANOALL, γ_{02}	-0.36	0.09	-4.02	21	<0.001
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.18	0.05	-3.67	601	<0.001
For ACHIEVslope, β_2					
INTRCPT2, γ_{20}	0.01	0.00	3.13	601	0.002
For L_ENG slope, β_3					
INTRCPT2, γ_{30}	0.42	0.26	1.62	21	0.120
PROPFEM, γ_{31}	-0.70	0.33	-2.12	21	0.046
MEANPROS, γ_{32}	0.05	0.04	1.21	21	0.239
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.70	0.46	1.52	21	0.142
PROPFEM, γ_{41}	0.80	0.34	2.37	21	0.028
MEANLRNE, γ_{42}	-0.22	0.11	-1.98	21	0.061
For SP_REL slope, β_5					
INTRCPT2, γ_{50}	0.09	0.03	3.22	601	0.001
For MYREL slope, β_6					
INTRCPT2, γ_{60}	-0.13	1.28	-0.10	21	0.920
MEANLRNE, γ_{61}	-0.38	0.16	-2.32	21	0.030
MEANPROS, γ_{62}	0.48	0.20	2.35	21	0.028

Prosocial Behaviour: Level 2- Model 5

Appendix G30. Final Estimation of Fixed Effects of Prosocial Behaviour Level 2- Model 6

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-2.90	1.83	-1.58	21	0.128
MEANLRNE, γ_{01}	1.12	0.45	2.50	21	0.021
MEANOALL, γ_{02}	-0.38	0.09	-4.15	21	<0.001
For GND slope, β_1					
INTRCPT2, γ_{10}	-0.18	0.05	-3.68	601	<0.001
For ACHIEV slope, β_2					
INTRCPT2, γ_{20}	0.01	0.00	3.27	601	0.001
For L_ENG slope, β_3					
INTRCPT2, γ_{30}	0.64	0.15	4.42	22	<0.001
PROPFEM, γ_{31}	-0.70	0.33	-2.14	22	0.044
For ST_REL slope, β_4					
INTRCPT2, γ_{40}	0.62	0.45	1.39	21	0.178
PROPFEM, γ_{41}	0.80	0.34	2.38	21	0.027
MEANLRNE, γ_{42}	-0.20	0.11	-1.85	21	0.078
For SP_REL slope, β_5					
INTRCPT2, γ_{50}	0.09	0.03	3.22	601	0.001
For MYREL slope, β_6					
INTRCPT2, γ_{60}	-0.48	0.91	-0.53	21	0.602
MEANLRNE, γ_{61}	-0.51	0.19	-2.71	21	0.013
MEANPROS, γ_{62}	0.69	0.076	9.13	21	<0.001

Prosocial Behaviour: Level 2- Model 6

Appendix H1. The English Version of the Class Teacher Rating Form

Class-Teacher Rating Form (Confidential)

Teacher's Code: ..... Sex: ..... Class Group: ..... Year:..... Date:.....

Please fill out the following rating form based on your views about your students in your classroom.
To fill out this form please see the guideline that accompanies this rating form.

No.	Student's names	Academic Achievement (for the current of study)					Classroom Engagement	Prosocial behavior in class	Student's relationships with other teachers	Student's relationships with classmates	My relationships with this student
		≤ 59	60 to 69	70 to 79	80 to 89	90 to 100					
	e.g. Ana					93	5	5	4	4	5
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Appendix H2. The Indonesian Version of the Class Teacher Rating Form

Format Isian Untuk Wali Kelas (Bersifat Rahasia)
Sekolah (Kode): SMPN .....
Kode Guru:..... Jenis Kelamin: ..... Kls: ..... Tanggal.....
cc
Isilah format isian berikut berdasarkan pandangan Anda mengenai anak wali Anda. Untuk mengisi format isian ini, mohon dilihat lembar acuan yang disiapkan. Terima kasih banyak atas partisipasi Anda dalam penelitian ini untuk melihat bagaimana pendapat siswa tentang suasana kelas mereka.

No.	Nama siswa	Prestasi akademik					Keterlibatan siswa dalam pembelajaran	Prilaku prososial siswa	Hubungan siswa ini dengan guru lain	Hubungan siswa ini dengan teman sekelasnya	Hubungan saya dengan siswa ini
		≤59	60 to 69	70 to 79	80 to 89	90 to 100					
	Contoh: Ana					93	5	5	4	4	5
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Appendix H3. The English Version of the Class Teacher Rating Form Guideline

A GUIDELINE FOR CLASS TEACHER RATING FORM

Please use the following descriptors to fill out the Class Teacher Rating Form

LEARNING ENGAGEMENT	PROSOCIAL BEHAVIOUR IN CLASS
5 = Usually on-task and highly motivated to work in class	5 = Mostly well-behaved in class. Mostly obeys classroom rules, is friendly, polite, and respectful of others
4 = Frequently on-task and motivated to work in class	4 = Usually well-behaved in class. Usually obeys classroom rules, is friendly, polite, and respectful of others
3 = Frequently on-task and but easily distracted	3 = Occasionally breaks classroom rules.
2 = Frequently off-task, inattentive, and distracted	2 = Frequently breaks classroom rules and interacts negatively with others in class.
1 = Often off-task, inattentive, distracted and disinterested	1 = Often breaks classroom rules and interacts negatively with others in class.

MY RELATIONSHIPS WITH THIS STUDENT	STUDENT RELATIONSHIPS WITH CLASSMATES
5 = Very close and we get on well	5 = Popular with classmates
4 = Get on well	4 = Has friends in class but isn't popular
3 = Not close but not distant	3 = No close friends in class but isn't disliked\
2 = Poor	2 = Liked by a few but disliked by others
1 = Very poor	1 = Unpopular with classmates

STUDENT RELATIONSHIPS WITH OTHER TEACHERS
5 = Generally very positive relationships with other teachers
4 = Gets on very well with some teachers but less so with others
3 = No evidence of relationship difficulties with some teachers
2 = Ongoing relationship difficulties with a teacher
1 = Ongoing relationship difficulties with some teachers

Appendix H4. The Indonesian Version of the Class Teacher Rating Form Guideline

ACUAN FORMAT ISIAN GURU WALI KELAS

Gunakanlah acuan berikut untuk mengisi Format Isian Guru Wali Kelas. Terima kasih atas bantuannya.

KETERLIBATAN SISWA DALAM PEMBELAJARAN	PRILAKU PROSOSIAL SISWA DI KELAS
5 = Biasanya mengerjakan tugas dan termotivasi tinggi untuk bekerja di kelas 4 = Sering mengerjakan tugas dan termotivasi tinggi untuk bekerja di kelas 3 = Sering mengerjakan tugas tetapi mudah terganggu 2 = Sering tidak mengerjakan tugas, tidak perhatian/lalai, dan terganggu 1 = Sering tidak kerja tugas, tidak perhatian/lalai, terganggu, dan tidak ada minat.	5 = Umumnya berprilaku baik di kelas. Umumnya menaati aturan di kelas, ramah, sopan dan menghormati orang lain. 4 = Biasanya berprilaku baik di kelas. Biasanya menaati aturan di kelas, ramah, sopan dan menghormati orang lain. 3 = Kadang-kadang melanggar aturan di kelas. 2 = Agak sering melanggar aturan di kelas, berinteraksi kurang baik dengan yang lain di kelas. 1 = Sering melanggar aturan di kelas, berinteraksi kurang baik dengan yang lain di kelas.
HUBUNGAN SAYA SEBAGAI WALI KELAS DENGAN SISWA TERSEBUT	**HUBUNGAN SISWA DENGAN TEMAN SEKELASNYA**
5 = Sangat dekat dan berjalan dengan baik. 4 = Berjalan dengan baik 3 = Tidak dekat tetapi juga tidak jauh 2 = Tidak baik 1 = Sangat tidak baik	5 = Populer dengan teman-teman sekelasnya 4 = Punya teman-teman di kelas tetapi tidak populer 3 = Tidak punya teman dekat di kelas tetapi disukai 2 = Disukai oleh sebagian temannya tetapi tidak disukai oleh sebagian lainnya. 1 = Tidak popular dengan teman-teman sekelasnya
HUBUNGAN SISWA DENGAN GURU LAIN	
5 = Secara umum memiliki hubungan positif dengan guru-guru lain. 4 = Hubungannya berjalan baik dengan sebagian guru, tetapi tidak dengan guru lainnya. 3 = Taka ada bukti memiliki hubungan yang sulit dengan beberapa guru. 2 = Saat ini lagi memiliki hubungan yang sulit (masalah) dengan seorang guru. 1 = Saat ini lagi memiliki hubungan yang sulit (masalah) dengan beberapa orang guru.	

Appendix I. Translation of Interviews with a Teacher

Interviewee: SCH6_T11

A: I'd like to say thank you very much for your kindness to participate in this interview. I know that you have a very busy time.

R: No worries.

A: How long have you been teaching?

R: More than 17 years old.

A: Where do you come from?

R: I come from Bima, another province and my husband is from South Sulawesi.

A: Where did you complete your undergraduate?

R: IKIP Makassar (Teacher Education and Training in Makassar)

A: What do you usually do to make your students close to you?

R: There are many things I usually do. The first thing I do is that I need to have a principle that in the class I am their teacher, but outside the classroom, I am their friends. I listen to their complaint both things related to their lessons and their personal problems such as their parents' problems, their boyfriends so that they will not keep away from me. They are good, they know their position. If I am teaching, they pay attention. All of the tasks including their homework are done. They like telling me their problems.

A: Did they like telling you their problems in the class?

R: Usually after teaching, a student was coming along with me and said, 'Miss, can I talk to you? I have a problem.' I said, 'Could you meet me in the break-time because now I have to teach in another class? 'Later when you come, just stand in front of the teacher room, so that I will come out to see you.' So children like talking to me.

A: If the children have somebody to talk, it will be good for them. They don't need to go to inappropriate places.

R: That's right. They will not go to negative places nor do negative things such as drugs. I see that most problematic students are caused by family background; they come from broken home family. They don't get enough attention from their parents. Some parents divorced, some others are extra busy. Therefore, we have to be open to them. I know that not all teachers want to do it. My phone credits usually run out very quickly. My students like sending me short messages when they have problems or difficulties, and I have to reply them. Recently, a student contacted me that her parent died. She wanted me to deliver this message to her class teacher. She could it. Actually she could contact her class teacher directly.

A: Although they are not your class students?

R: Yes. Even though they are not my class students, they keep in touch with me, including those who were my class students in the past.

A: If most teachers do like that, it will be great. What do you usually do to make your students work together?

R: I group the students. The groups are not monotonous. For example, I divide the groups based on their names in the attendance list. Let's say from number 1 to 5 is group one, and so forth. Sometimes, they are grouped based on their seat position, so they just need to turn their chairs. Sometimes I mix male and female students in a group. Usually the groups change so that it will enable them to work together with all of their classmates.

A: Do the groups always change every group work time?

R: Not always, but usually. Usually the same group will be used for twice so that this will allow them to have better team-work. They will be getting close each other. In the group work, they learn how to socialize with others who have different characters or people types. If they are not accustomed to socializing with different people, in the future they will be in difficulties because they will be in the society. For example, when I was still a small kid, I was familiar with different type of people. Thus, I don't get any difficulties working with different people, so not only with certain group of people. I don't want my students will find difficulties in the society.

A: So you did some reflection from your personal experience?

R: I myself came from a broken home family. My parents divorced. But I remember when I was in senior high school; I had a teacher to whom I could talk when I had a problem or difficulty. Therefore, I did the same thing to my students. Sometimes there was a student who came from another class that I hadn't taught before, came to me and talk about her problem. When I was still young, if I was not helped by many people, perhaps I would take a wrong way of my life. I spent lots of time in organization activities such boy-scouts, and First Aid Kit. In every organization that I involved in, I had somebody who was close to me like my parents.

Formerly, my brothers used to be strict to me. They were not soft to me. That made me tough and brave to say no if it is not true. So my personal experiences has influenced my personality and influenced me in treating my students.

A: What did you usually do if your students were lazy to school or played truant?

R: Before I sent my students' problems to the guidance counsellor, I tried to solve it. I usually called the students' parents or visited their homes.

A: Did the parents come when they were invited to school?

R: Yes they usually came. If they didn't come, I would visit their homes.

A: Could you tell me your experience in visiting students' parents?

R: Actually it depends on the language that we use when communicating with them. I was trying not to use a very formal language. If I was coming to them, I did as friends, friendly and family-hood. And they used to talk about their principle things.

A: Do you think visiting their parents could change the students' negative behaviour?

R: Yes, it could. Usually the students were getting closer to me. And if they were close to me, it would be easier for me to handle or control him. Although the child was naughty but he would change.

R: What did you do to motivate your students to learn?

A: In terms of motivation, actually it came from inside of an individual student. Giving motivation to students is sometimes successful but sometimes not. Some students consider that learning is boring. On the other hand, some others have good motivation to learn only by giving them a little stimulation to learn. I used an individual approach. For example, I have a new student, he moved from another school. Once, I stimulated him by giving a Math question. I saw that the child had an interesting technique in answering the question and seemed to have good capability in analysing a question. Then I thought that this child had potential to be smart. One day, I invited him to the teacher room and gave him a number of Math questions to do. He could answer the questions well. I asked him what kind of Math books that he hadn't got. I lent him some Math books. Since the time, he began to study Math more seriously. Initially, this child was like the other average students. Then he became more motivated; and now I am preparing him to join Math competition to represent our school.

For students who were difficult to be motivated, I used another way. For example, I asked the student to read the material loudly so that the other students could listen to him. After reading it, I asked him what it meant. I keep guiding him. Next, I explained it by giving him a parable. For example when I explained 'Function or Relation', there are criteria must be fulfilled. First, the first assemblage must have friends in the second assemblage. I also said to them that in 'Function or Relation' if we want to start this game, the criteria that we must fulfil is that we should have 'a girl/boyfriend' and cannot be more than one, and look at the direction of the arrow. If you have more than one of 'girl/boyfriends', it is not a 'Function or Relation'. So I was trying to associate the lesson and their real world. Sometimes I used adolescent language to make them interested in learning. Sometimes, there was student who didn't pay attention on the lesson but because the other students in the class were laughing, then he/she asked his/her friends what I was talking about that made them laugh. Finally he/she also paid attention on my lesson.

At the beginning of my teaching, we made commitment that they would play or disrupt during the teaching and learning process; and they kept it.

A: Do you have a student who come from a very low economy family and cannot buy his/her learning facilities as his/her friends do?

R: If he/she is an orphan, there are lots of ways to handle or help him. But if he/she is not an orphan but poor, we, the teachers here help him/her for example by providing his/her uniform if it is needed. We help his/her transport fees it becomes a problem for him/her. We, a number of teachers here, made a small group of teachers to collect money/donation to support our disadvantaged students. However this activity is a volunteer. Not all teachers here participate in this activity. So only if they want to do it. Actually we didn't want to expose this because we consider this as a worship activity. Because you are interviewing me so I let you know.

I always encourage my class-students to help other students. I approach and teach them how to do worship silently. They usually set aside some of their pocket money for charity. Usually this donation is used for 'cross aid'. It means that my class-students help the disadvantaged students in another class, and vice versa.

A: Do you have a student who is isolated from his/her classmates?

R: Physically there is no a disabled student in this school. But in terms of psychics we could find a student who is not healthy. For example, there was a student who didn't want to be friends with others. He kept away from his friends, and his friends also kept away from him since his friends thought that he didn't contribute positively to them. One day I gave him a Math test, but he didn't do it at all. When I noticed him, he started being afraid. I invited his mother to meet me at school. His mother told me that he couldn't accept that his father had left him and married with another lady, and went to Malaysia. Since the time I approached a popular student in the class, and told him that the child had a problem and suggested not to keep away from him. I also suggested him to help his friend to be able to make friends with others. Finally this way was successful. Now the child looks cheerful and has many friends. One day he brought me a jar of green beans. He gave it to me in the class, in front of his classmates. He said to me, 'Miss, this is for you.' And I said, 'Thank you.'

A: In terms of group work, how many students are in each group?

R: Usually 5 students.

A: Do you usually form the groups for them?

R: I usually form the groups for them. If they determine their own group, they tend to choose the same members as their previous group.

A: Is there any competition among the groups?

R: Yes, the groups compete. They want to bring their group to be the best one.

A: Do you usually give them a reward?

R: I usually give them a reward such as applause. Sometimes I bought candies, the cheapest ones. And I always note the grades that they get so that they feel being motivated in a group work.

A: In general what is the main obstacle or difficulty of your students?

R: Generally their main obstacle is that they have low interest in learning. There are more students who don't want to learn than those who want to learn. Besides, some students only like certain subjects. There is nothing wrong with the school system. The teachers in this school are very diligent to teach. We rarely find a class without a teacher inside it.

R: We should open ourselves to students in the sense that maybe we could be a friend to them so they do not run into drugs, or sex. So if they want to talk about their problems, they get us. But we cannot say this to other colleagues. I am afraid if they will say, 'Who are you?'

I have a story. This happened last year. A female student was using her mobile phone while her English teacher was teaching in the class. This student was receiving a short message from her boyfriend. The English teacher took the mobile phone and gave it to me because the teacher didn't know how to use it. So I opened the message that she had just received. Her boyfriend invited her to have dating. Shockingly, that man persuaded her to sleep together. Then I asked the female student to meet me in my room. I gave her advice that in this

world there were so many wicked men, however there also many good men. ‘A good man will not do something bad to you.’ I explained the negative consequences if she followed his persuasion or had sexual intercourse before getting married. I suggested her to stop her relationship with the man and be careful in having romantic relationships. I keep an eye and control her. Lastly she told me that she had ended her relationship with her boyfriend, and she had never followed his boyfriend’s persuasion.

A: I think we can learn lots of things from your story. Thanks very much for your participation in this interview. I do appreciate it, and it will be very meaningful for my study.

Appendix J. Sample Size for Continuous and Categorical Data

Table 1: Table for Determining Minimum Returned Sample Size for a Given Population Size for Continuous and Categorical Data

Population size	Sample size					
	Continuous data (margin of error=.03)			Categorical data (margin of error=.05)		
	alpha=.10 t=1.65	alpha=.05 t=1.96	alpha=.01 t=2.58	p=.50 t=1.65	p=.50 t=1.96	p=.50 t=2.58
100	46	55	68	74	80	87
200	59	75	102	116	132	154
300	65	85	123	143	169	207
400	69	92	137	162	196	250
500	72	96	147	176	218	286
600	73	100	155	187	235	316
700	75	102	161	196	249	341
800	76	104	166	203	260	363
900	76	105	170	209	270	382
1,000	77	106	173	213	278	399
1,500	79	110	183	230	306	461
2,000	83	112	189	239	323	499
4,000	83	119	198	254	351	570
6,000	83	119	209	259	362	598
8,000	83	119	209	262	367	613
10,000	83	119	209	264	370	623

NOTE: The margins of error used in the table were .03 for continuous data and .05 for categorical data. Researchers may use this table if the margin of error shown is appropriate for their study; however, the appropriate sample size must be calculated if these error rates are not appropriate. Table developed by Bartlett, Kotrlik, & Higgins.

Appendix K. Descriptions of Nodes

Descriptions of Nodes

Name	Description
Access to School	Students' difficulties regarding access to school are for example their houses were very far from the school and no public transport.
Asking Questions	Asking questions is one strategy in behavioural management that teachers do or consider as an important thing to make clarification for example about students' problems or difficulties.
Assessment Practices	Assessment Practices include formal methods such as written tests; informal methods are such as observation, oral testing, etc.
Authoritative, Warm, Flexible and High	Teachers show authoritative manner; they look warm, flexible and have high expectations.
Behavioural Management	Behavioural Management include giving advice, asking questions, reconciling, warning, clarifying difficulties, seeking information or background, talking with someone, observation, interviews, seeking help from others, and negotiating solutions.
Being Friends with Students	Teachers consider their students as their friends.
Bilingual	Teachers use two different languages to help students in learning.
Bullying	Bullying refers to the use of force, threat, humiliation and similar things either by verbal or physical behaviours to harm other people.
Care	Care includes approach, asking students about their learning or other things, listening to them, checking their attendance, getting to know them, understanding them, and giving attention to them.
Classroom Management	Classroom management involves teachers' actions and instructional techniques to create learning environment that facilitates and supports active engagement both academic and socio-emotional learning (McDonalds, 2010, p.20). Classroom management includes these headings: punishment, consequences, relationship and community building, routines and rules, curriculum, grouping practices, teaching methods, assessment practices, problem solving, personal support, and teacher role.
Communication Practice	Students practice how to use a language or communicate with other people, for example by dialogues.
Consequences	Consequences are the results of a student's behaviour; when the behaviour is inappropriate, the consequences are typically punitive in nature; and this can be a synonym for punishment (Hardin, 2012,
Curriculum	A curriculum that meets the needs of individual students; educating the whole person; life skills teaching; affective education - learning about self and others; art, music, drama and creativity are valued areas of the curriculum; sport & outdoor education; woodwork, home economics, metalwork, etc.
Disruptive Students	The students who liked distracting their classmates for example making noisy in the classroom, bothering other students in the class
Drills	In order to have more understanding regarding a topic or lesson, students do practical exercises or drills.
Emotional Punishment	Emotional punishment is non-physical punishment given to students; it is intended to influence students' feeling or emotion such as giving them a threat.
Emotional Students	The students who struggled to manage their anger.
Environmental Challenges	Environmental challenges for students are for example students could not attend the school because of flood.

Equity	Teachers treat their students equally based on students' needs
Facilitators and Mentors	Teachers play a role as a facilitator and mentor for students. They facilitate students' learning for example providing access to get material for the lesson, providing examples or guidance of doing a
Facility Issues	Students' difficulties in relation to facility issues are everything relating to facilities that provide less support for students' learning, for example, insufficient textbooks, work sheets, computer access, and other learning facilities.
Family Background	Family back ground is for example students didn't live with their parents, their parents divorced, uneducated parents, and so on.
Fighting	Fighting is a conflict involving physical attack or combat.
Financial Difficulties	Financial issues are for example students find difficulties in buying school uniforms, text books and so on.
For Academic Performance	Instructional Support for academic performance
For Equity	Instructional Support for equity
For Managing Behaviour	Instructional Support for managing behaviour
For Motivation & Engagement	Instructional Support for motivation & engagement
Fostering Close Relationships	Teachers build or foster positive close relationships among the students in the class, for example by providing certain activities that enable the students to build close relationships or by giving them encouragement to do so.
Games	Games are a form of play. Students learn by a doing a form of play.
Giving Advice	Giving advice is one strategy in behavioural management that teachers do or consider as an important thing.
Giving Students Choices	Giving students choices are encouraging student agency. For example, students are allowed to decide what they want to learn and how to learn it.
Group Work	Group work includes jigsaw, Cooperative teams, Competition, discussion and so on.
Group Work Purposes	Group Work Purposes mean that students are grouped because teachers have a purpose or some purposes of doing it.
Group Work Techniques	Group Work Techniques mean teachers group students because of technical reasons, not because of certain goals or purposes of doing
Health and Physical Issues	Health or physical issues are for example students often got sick, they had physical weaknesses, and so on.
Highly Authoritarian and Controlling	Teachers who are in this category tend to be more strict, not flexible and show their authority to their students.
Home and School Relationships	Home and School Relationships are Efforts to establish positive relationships between school and parents.
Individual Work	Students work individually, not in pairs or in groups.
Instructional Relationships	Instructional relationships are the relationships that more emphasised on instructional aspects such as classroom management, learning engagement assessment, and teaching
Isolated or Rejected Students	Students who were isolated or rejected by other students. They had no friends.
Isolated Themselves	Students were not rejected or isolated, but they kept away from the others.
Lack Confidence	Students do not have strong confidence
Language Issues	Students' difficulties regarding language issues are for example students had still problems in understanding Indonesian language as their second language.

Learning Engagement	Students' learning engagement is students' involvement in learning such as their attention on the lesson delivered, participation in doing learning tasks or activities in the classroom, and in doing and submitting their homework.
Lecture	Lecture is giving information about a subject by a speech to a class.
Managing Own Learning	The students who could manage their own learning and setting their own goals.
Memorizing	Learning a thing so as to know it from memory.
Motivation in Learning	refers to whether students were motivated or not motivated in learning; whether they wanted or didn't want to involve or participate in learning activities.
No Talking to Each Other	Students don't want to great or talk to each other signing that they get angry at one another. They decide to be silent and stay away one another.
Parenthood	Parenthood is that teacher view their relationships with the students are like parents.
Peer Conflicts	The students had conflicts or problems with their classmates such as fighting, quarrels, bullying and so on.
Peer Friendship	The students became friends. They didn't have any conflicts. Their relationships were positive. They are mutual liking and mutual responsiveness.
Peer Relationships	Peer relationships may influence students' presence or absence at school or in their classroom. For example, when a student feels being isolated by his or her classmates, he or she is more likely not motivated to come to school.
Personal or Home Factors	Personal or home factors are for example orphanage, poverty.
Personal Relationships	Personal relationships are the relationships that more emphasised on non-instructional aspects such as relationships with students' parents and relationships among the students.
Physical Punishment	Physical punishment is a punishment given to students that makes them hurt physically or tired for example asking them to stand up in front of the class,
Presentation	Presentation is a lesson that is presented or displayed for example by using a power point or slides.
Pronunciation Practice	Pronunciation is the way a word is pronounced. It is practicing how to pronounce a word correctly.
Providing Advice, Suggestions	Teachers provide advice or suggestions to students, for example they give advice or suggestion to the students who have a problem or in difficult situation.
Punishment	punishment is the application of an unpleasant stimulus or withdrawal of a pleasant reward in attempt to weaken a response (Hardin , 2012, p.289)
Quarrel	Quarrel is violent disagreement that is usually shown by rude words.
Reconciling	Reconciling is one strategy in behavioural management that teachers do or consider as an important thing.
Reporting to Class-Teachers or Counsellor	Reporting Problems to the class teachers or counsellor is one strategy behavioural management that teachers consider an
Respects	Respects can be shown by language (e.g. using polite language when talking to parents, teachers) or physical gestures.
Routines and Rules	Routines & Rules are for example to facilitate learning and minimise difficulties; collaborative development of rules & routine; seeking help, communication & movement routines; giving
School Support	All the schools did in order to support the students' learning.
Seeking Background	Seeking the background for information is one strategy in behavioural management that teachers consider as an important

Social Punishment	Social Punishment is a type of punishment given to students for example by asking them to do something that is useful for other people or community, but the students themselves feel being punished because they have done a violation.
Student Inquiry Methodology	Student Inquiry Methodology includes discovery learning, problem based learning (PBL), action research, and experiential learning.
Student Self-Control Behaviour	Student self-control behaviour is the ability of students in managing their emotions and behaviours including how they cope with their obstacles, and how they react to a certain situations.
Students' Attendance	Students' Attendance is students' presence or absence at school or in their classroom in which their presence or absence might be influenced by peer relationships, personal or home factors, subject interest, and teacher relationships.
Students' Difficulties	The difficulties or challenges of the students which gave impact on their learning.
Students' Interactions	Students' Interactions refer to how the students interact with their classmates or other students.
Subject Interest	Subject interest of students is one factor that may influence students' attendance at school. For example when a student feel that a subject is not interesting, they might decide not to attend the class.
Taking Classmates' Stuff	Sometimes students took their classmates' stuff not for stealing purpose. They just wanted to tease or bother their classmates. But some others did it for stealing purpose.
Talking with Family	Talking with students' family is one strategy in behavioural management that teachers do or consider as an important thing.
Talking with Students	Talking with students is one strategy in behavioural management that teachers do or consider as an important thing.
Teacher Relationships	Teacher Relationships may influence students' presence or absence at school or in their classroom. For example, when students' relationships with a teacher were not good, the students are more likely to avoid attending the teachers' class or subject.
Teacher Roles	Teacher Roles include facilitators and mentors; authoritative - warm, flexible & high expectations; highly authoritarian &
Teachers' Assumption about Behaviour	Teachers' assumptions are teachers' perspectives and expectations in relation to students' behaviours.
Teachers' Assumption about Gender	Teachers' assumption about gender is teachers' perspectives and expectations in relation to students' gender
Teachers' Assumption about Intelligence	Teachers' assumptions are teachers' perspectives and expectations in relation to students' intelligence or capability.
Teachers' Assumption about Mental Health	Teachers' assumptions are teachers' perspectives and expectations in relation to students' mental health (e.g. depressed).
Teachers' Assumption about Motivation	Teachers' assumption about motivation is teachers' perspectives and expectations in relation to students' motivation.
Teachers' Assumption about Relationships	Teachers' assumption about relationships is teachers' perspectives and expectations in relation to students' relationships
Teachers' Instructional Support	Teachers' Instructional Support includes providing task scaffolding; students working as pairs or in groups; giving hurdle help; modifying or changing tasks to meet the needs of students
Teachers' Non-Instructional Support	Teachers' Non-Instructional Support includes emotional support (e.g. encouragement, suggestions), material assistance like money for transport etc.
Teachers' Presence or Absence	Teachers' Presence or Absence refers to whether the teachers were rarely absent from school or class, or whether they always came to the class on time.
Teachers' Suggestions	In the interview, teachers were asked whether they would like to provide suggestions or say something regarding teaching and

Teaching Methods	Teaching Methods include the use of group work (Jigsaw, Cooperative teams, Competition); interest based- student centred learning; student inquiry methodology (discovery learning, problem based learning (PBL), action research, experiential learning); giving students choices (encouraging student agency); use of inclusive education practices; including students interests in the
Trust	Students trust their teachers. This can be established when the students feel connecting and belonging to the teachers. Students will come to the teachers and say their problems only if they trust the teachers. They feel safe to talk to their teachers.
Types of Conflicts	There are many types of conflicts for example quarrels, fighting, and bullying
Warning	Giving warning is one strategy in behavioural management that teachers do or consider as an important thing to do when students are hard to be managed.

REFERENCES

Adelman, H. S., & Taylor, L. (2005). Classroom climate. In S. W. Lee, P. A. Lowe, & E. Robinson (Eds.), *Encyclopedia of school psychology*. California, USA: Sage Publications.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211.

Aldridge, J. M., Fraser, B. J., & Huang, T.-C. I. (1999). Investigating classroom environments in Taiwan and Australia with multiple research methods. *The Journal of educational research, 93*(1), 48-62.

Anderman, E. M., & Maehr, M. L. (1994). Motivation and schooling in the middle grades. *Review of Educational Research, 64*(2), 287-309.

Anderson, A., Hamilton, R. J., & Hattie, J. (2004). Classroom climate and motivated behaviour in secondary schools. *Learning Environments Research, 7*(3), 211-225.

Anderson, G. J., & Walberg, H. J. (1967). *Classroom climate and individual learning* (ED 015153). Retrieved from New York: http://files.eric.ed.gov/fulltext/ED015153.pdf

Baek, S. G., & Choi, H. J. (2002). The relationship between students' perceptions of classroom environment and their academic achievement in Korea. *Asia Pacific Education Review, 3*(1), 125-135.

Baker, J. A. (2006). Contributions of teacher-child relationships to positive school adjustment during elementary school. *Journal of School Psychology, 44*, pp.211-229.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York, USA: Freeman.

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development, 72*(1), 187-206.

Bandura, A., Pastorelli, C., Barbaranelli, C., & Caprara, G. V. (1999). Self-efficacy pathways to childhood depression. *Journal of Personality and Social Psychology, 76*, 258-269.

Barker, D., Quennerstedt, M., & Annerstedt, C. (2013). Inter-student interactions and student learning in health and physical education: A post-Vygotskian analysis. *Physical Education and Sport Pedagogy*, 18. doi:10.1080/17408989.2013.868875

Barlett, J. E. I., Kotrlik, J. W., & Higgins, C. C. (2001). Organizational research: Determining appropriate sample size in survey research. *Information Technology, Learning, and Performance, 19*(1), 43.

Barriga, A. Q., Doran, J. W., Newell, S. B., Morrison, E. M., Barbetti, V., & Robbins, B. D. (2002). Relationships between problem behaviors and academic achievement in adolescents: The unique role of attention problems. *Journal of Emotional and Behavioral Disorders, 10*(4), 233-240.

Baumeister, R. F., Vohs, K. D., & Tice, D. M. (2007). The strength model of self-control. *Current Directions in Psychological Science, 16*(6), 351-355.

Baydala, L., Rasmussen, C., Birch, J., Sherman, J., Wikman, E., Charchun, J., . . . Bisanz, J. (2009). Self-beliefs and behavioural development as related to academic achievement in Canadian Aboriginal children. *Canadian Journal of School Psychology, 24*(1), 19-33.

Bazeley, P. (2009). Analysing qualitative data: More than 'identifying themes'. *Malaysian Journal of Qualitative Research, 2*(2), 6-22.

Beaman, R., Wheldall, K., & Kemp, C. (2006). Differential teacher attention to boys and girls in the classroom. *Educational Review, 58*(3), 339-366. doi:10.1080/00131910600748406

Bergin, C., & Bergin, D. (2009). Attachment in the classroom. *Educational Psychology Review, 21*(2), 141-170. doi:10.1007/s10648-009-9104-0

Berndt, T. J. (2002). Friendship quality and social development. *Current Directions in Psychological Science, 11*(1), 7-10.

Berndt, T. J., & Keefe, K. (1995). Friends' influence on adolescents' adjustment to school. *Child Development, 66*(5), 1312-1329.

Bieg, S. R., Backes, S., & Mittag, W. (2011). The role of intrinsic motivation for teaching, teachers' care and autonomy support in students' self-determined motivation. *Journal for Educational Research Online, 3*(1), 122-140.

Bierman, K. L. (2011). The promise and potential of studying the "invisible hand" of teacher influence on peer relations and student outcomes: A commentary. *Journal of Applied Developmental Psychology, 32*(5), 297-303. doi:10.1016/j.appdev.2011.04.004

Bintarto, R. (1983). *Interaksi desa-kota*. Jakarta, Indonesia: Ghalia.

Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology, 35*(1), 61-79.

Bissell, A. N., & Lemons, P. P. (2006). A new method for assessing critical thinking in the classroom. *BioScience, 56*(1), 66-72. doi:10.1641/0006-3568(2006)056[0066:ANMFAC]2.0.CO;2

Bollmer, J. M., Milich, R., Harris, M. J., & Maras, M. A. (2005). A friend in need the role of friendship quality as a protective factor in peer victimization and

bullying. *Journal of Interpersonal Violence, 20*(6), 701-712. doi:10.1177/0886260504272897

Brophy, J. (2004). *Motivating students to learn* (2 ed.). New Jersey, USA: Lawrence Erlbaum Associates, Inc.

Brophy, J. (2010). *Motivating students to learn* (3 ed.). New York, USA: Routledge.

Brown, S. D., Lent, R. W., & Larkin, K. C. (1989). Self-efficacy as a moderator of scholastic aptitude-academic performance relationships. *Journal of Vocational Behavior, 35*(1), 64-75.

Brunvand, S., & Byrd, S. (2011). Using voicethread to promote learning engagement and success for all students. *Teaching Exceptional Children, 43*(4), 28-37.

Bryk, A. S., & Schneider, B. (2003). Trust in schools: A core resource for school reform. *Educational Leadership, 60*(6), 40-45.

Caprara, G. V., Barbaranelli, C., Pastorelli, C., Bandura, A., & Zimbardo, P. G. (2000). Prosocial foundations of children's academic achievement. *Psychological Science, 11*(4), 302-306.

Carrell, S. E., & Hoekstra, M. L. (2010). Externalities in the classroom: How children exposed to domestic violence affect everyone's kids. *American Economic Journal: Applied Economics, 2*(1), 211-228.

Central Agency Statistic of Indonesia. (2010). Retrieved from http://sp2010.bps.go.id/index.php/dokumentasi/index

Central Statistics Agency of Maros. (2012). Statistic Daerah. Retrieved 12 April 2012 http://maroskab.bps.go.id/index.php/statistik-daerah?start=2),

Chang, L. (2004). The role of classroom norms in contextualizing the relations of children's social behaviors to peer acceptance. *Developmental Psychology, 40*(5), 691-702. doi:10.1037/0012-1649.40.5.691

Chatzisarantis, N. L., & Hagger, M. S. (2009). Effects of an intervention based on self-determination theory on self-reported leisure-time physical activity participation. *Psychology and Health, 24*(1), 29-48. doi:10.1080/08870440701809533

Chen, X., Chang, L., & He, Y. (2003). The peer group as a context: Mediating and moderating effects on relations between academic achievement and social functioning in Chinese children. *Child Development, 74*(3), 710-727.

Chin, C., & Osborne, J. (2008). Students' questions: A potential resource for teaching and learning science. *Studies in Science Education, 44*(1), 1-39.

Ching Mok, M. M. (2005). Assessment for learning. In P. C. Miller (Ed.), *Narratives from the classroom: An introduction to teaching*. California, USA: Sage Publications, Inc.

Chirkov, V., Ryan, R. M., Kim, Y., & Kaplan, U. (2003). Differentiating autonomy from individualism and independence: A self-determination theory perspective

on internalization of cultural orientations and well-being. *Journal of Personality and Social Psychology, 84*(1), 97.

Clement, N. (2010). Student wellbeing at school: The actualization of values in education. In T. Lovat, N. Clement, & R. Tomey (Eds.), *International research handbook on values education and student wellbeing* (pp. 37-62). London, England: Springer Science+Business Media.

Close, W., & Solberg, S. (2008). Predicting achievement, distress, and retention among lower-income latino youth. *Journal of vocational behavior, 72*(1), 31-42.

Cohen, J. (2010). The new standards. *Principal Leadership.* Retrieved from http://www.wellbeingaustralia.com.au/wba/New%20School%20Climate%20Standards.pdf

Coleman, P. K. (2003). Perceptions of parent-child attachment, social self-efficacy, and peer relationships in middle childhood. *Infant and Child Development, 12*(4), 351-368.

Cooper, P., & McIntyre, D. (1996). *Effective teaching and learning: Teachers' and students' perspectives*. Philadelphia, USA: McGraw-Hill International.

Craig, W. M., & Pepler, D. J. (1998). Observations of bullying and victimization in the school yard. *Canadian Journal of School Psychology, 13*(2), 41-59.

Cresswell, J. W. (2014). *Research design. Qualitative, quantitative, and mixed methods approaches* (4 ed.). California, USA: Sage Publications, Inc.

Cresswell, J. W., & Clark, V. L. P. (2007). *Designing and conducting mixed methods research*. California, USA: Sage Publications, Inc.

Crowe, A., Dirks, C., & Wenderoth, M. P. (2008). Biology in Bloom: Implementing Bloom's taxonomy to enhance student learning in Biology. *CBE-Life Sciences Education, 7*(4), 368-381. doi:10.1187/cbe.08–05–0024

Cullen, K., & Monroe, J. (2010). Using positive relationships to engage the disengaged: An educational psychologist-initiated project involving professional sports input to a pupil referral unit. *Educational and Child Psychology, 27*(1), 64-78.

Darmawan, I., & Keeves, J. P. (2006). Accountability of teachers and schools: A value-added approach. *International Education Journal*.

Davidson, A. J., Gest, S. D., & Welsh, J. A. (2010). Relatedness with teachers and peers during early adolescence: An integrated variable-oriented and person-oriented approach. *Journal of School Psychology, 48*(6), 483-510. doi:10.1016/j.jsp.2010.08.002

Davis, K. S., & Dupper, D. R. (2004). Student-teacher relationships: An overlooked factor in school dropout. *Journal of Human Behavior in the Social Environment, 9*(1-2), 179-193.

Dean, J. (2002). *Improving children's learning: Effective teaching in the primary school*. London, England: Routledge.

Deci, E. L., & Ryan, R. M. (2008). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology Association, 49*(1), 14-23. doi:10.1037/0708-5591.49.1.14

Decker, D. M., Dona, D. P., & Christenson, S. L. (2007). Behaviorally at-risk African American students: The importance of student–teacher relationships for student outcomes. *Journal of School Psychology, 45*(1), 83-109.

Dobransky, N. D., & Frymier, A. B. (2004). Developing teacher-student relationships through out of class communication. *Communication Quarterly, 52*(3), 211-223.

Doll, B., & Hess, R. S. (2001). Through a new lens: Contemporary psychological perspectives on school completion and dropping out of high school. *School Psychology Quarterly, 16*(4), 351.

Doll, B., Kurien, S. A., LeClair, C., Spies, R., Champion, A., & Osborn, A. (2009). The ClassMaps Survey: A framework for promoting positive classroom environments. *Handbook of Positive Psychology in the Schools*, 213-227.

Doll, B., & Siemers, E. (2004). *Assessing instructional climates: The reliability and validity of ClassMaps.* Paper presented at the A Poster Presented at the Annual Convention of the National Association of School Psychologists, Dallas, USA.

Doll, B., Spies, R., & Champion, A. (2012). Contributions of ecological school mental health services to students' academic success. *Journal of Educational and Psychological Consultation, 22*(1-2), 44-61. doi:10.1080/10474412.2011.649642

Doll, B., Spies, R. A., Champion, A., Guerrero, C., Dooley, K., & Turner, A. (2010). The classmaps survey: A measure of middle school science students' perceptions of classroom characteristics. *Journal of Psychoeducational Assessment, 28*(4), 338-348. doi:10.1177/0734282910366839

Doll, B., Spies, R. A., LeClair, C., Kurien, S. A., & Foley, B. P. (2010). Student perceptions of classroom learning environments: Development of the ClassMaps Survey. *School Psychology Review, 39*(2), 203-218.

Dorman, J. P. (2008). Determinants of classroom environment in Queensland secondary schools: A multilevel reanalysis. *Educational Research and Evaluation, 14*(5), 429-444. doi:10.1080/13803610802337640

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest, 14*(1), 4-58.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A

meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432. doi:10.1111/j.1467-8624.2010.01564.x

Eccles, J., Wigfield, A., Harold, R. D., & Blumenfeld, P. (1993). Age and Gender Differences in Children's Self-and Task Perceptions during Elementary School. *Child Development, 64*(3), 830-847.

Edwards, C. J., Carr, S., & Siegel, W. (2006). Influences of experiences and training on effective teaching practices to meet the needs of diverse learners in schools. *Education, 126*(3), 580.

Eliot, M., Cornell, D., Gregory, A., & Fan, X. (2010). Supportive school climate and student willingness to seek help for bullying and threats of violence. *Journal of School Psychology, 48*(6), 533-553. doi:10.1016/j.jsp.2010.07.001

Emmer, E. T., & Stough, L. M. (2001). Classroom management: A critical part of educational psychology, with implications for teacher education. *Educational Psychologist, 36*(2), 103-112. doi:10.1207/S15326985EP3602_5

Evans, I. M., Harvey, S. T., Buckley, L., & Yan, E. (2009). Differentiating classroom climate concepts: Academic, management, and emotional environments. *Kōtuitui: New Zealand Journal of Social Sciences Online, 4*(2), 131-146. doi:10.1080/1177083X.2009.9522449

Farmer, T. W., Lines, M. M., & Hamm, J. V. (2011). Revealing the invisible hand: The role of teachers in children's peer experiences. *Journal of Applied Developmental Psychology, 32*(5), 247-256. doi:10.1016/j.appdev.2011.04.006

Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4 ed.). London, England: Sage Publication Ltd.

Finkenauer, C., Engels, R. C., & Baumeister, R. F. (2005). Parenting behaviour and adolescent behavioural and emotional problems: The role of self-control. *International Journal of Behavioral Development, 29*(1), 58-69.

Fraser, B. J. (1984). The effects of classroom climate on student outcomes: A replication in two developing countries. *Singapore Journal of Education, 6*(2), 60-63.

Fraser, B. J., Aldridge, J. M., & Adolphe, F. G. (2010). A cross-national study of secondary science classroom environments in Australia and Indonesia. *Research in Science Education, 40*(4), 551-571. doi:10.1007/s11165-009-9133-1

Fraser, B. J., & Fisher, D. (1986). Using short forms of classroom climate instruments to assess and improve classroom psychosocial environment. *Journal of Research in Science Teaching, 23*(5), 387-413.

Fraser, B. J., & Kahle, J. B. (2007). Classroom, home and peer environment influences on student outcomes in science and mathematics: An analysis of systemic reform data. *International Journal of Science Education, 29*(15), 1891-1909.

Fraser, B. J., & Walberg, H. J. (2005). Research on teacher–student relationships and learning environments: Context, retrospect and prospect. *International Journal of Educational Research, 43*(1), 103-109. doi:10.1016/j.ijer.2006.03.001

Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95*(1), 148-162. doi:10.1037/0022-0663.95.1.148

Gemici, S., & Lu, T. (2014). *Do schools influence student engagement in the high school years?* Retrieved from Adelaide, Australia:

Goldsmith, D. J., & Fitch, K. (1997). The normative context of advice as social support. *Human Communication Research, 23*(4), 454-476.

Gonzalez-DeHass, A. R., Willems, P. P., & Holbein, M. F. D. (2005). Examining the relationship between parental involvement and student motivation. *Educational Psychology Review, 17*(2), 99-123. doi:10.1007/s10648-005-3949-7

Good, T. L., & Brophy, J. E. (2000). *Looking in classroom* (8 ed.). New York, USA: Longman.

Goodenow, C. (1993). Classroom belonging among early adolescent students relationships to motivation and achievement. *The Journal of Early Adolescence, 13*(1), 21-43.

Government of Indonesia. (2003). *Undang-undang Republik Indonesia nomor 20 tahun 2003 tentang sistem pendidikan nasional*. Jakarta, Indonesia.

Government of Indonesia. (2005). *Peraturan pemerintah Republik Indonesia nomor 19 tahun 2005 tentang standar nasional pendidikan*. Jakarta, Indonesia.

Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist, 58*(6-7), 466. doi:10.1037/0003-066X.58.6-7.466

Greene, B. A., Miller, R. B., Crowson, H. M., Duke, B. L., & Akey, K. L. (2004). Predicting high school students' cognitive engagement and achievement: Contributions of classroom perceptions and motivation. *Contemporary Educational Psychology, 29*(4), 462-482. doi:10.1016/j.cedpsych.2004.01.006

Greenhow, C., Robelia, B., & Hughes, J. E. (2009). Learning, teaching, and scholarship in a digital age. *Educational Researcher, 38*(4), 246-259. doi: I 0.3102100 I 3I 89X0933667 I

Grolnick, W. S., & Ryan, R. M. (1987). Autonomy in children's learning: An experimental and individual difference investigation. *Journal of Personality and Social Psychology, 52*(5), 890.

Guay, F., Ratelle, C. F., & Chanal, J. (2008). Optimal learning in optimal contexts: The role of self-determination in education. *Canadian Psychology, 49*(3), 233.

Guthrie, J. T., & Davis, M. H. (2003). Motivating struggling readers in middle school through an engagement model of classroom practice. *Reading & Writing Quarterly, 19*(1), 59-85.

Hammersley, M. (1990). *Reading ethnographic research: A critical guide*. London, England: Longman.

Hammersley, M. (1992). *What's wrong with ethnography?: Methodological explorations*. London, England: Routledge.

Hamre, B. K., & Pianta, R. C. (2005). Can instructional and emotional support in the first-grade classroom make a difference for children at risk of school failure? *Child Development, 76*(5), 949-967.

Hanushek, E. A., Mayer, S. E., & Peterson, P. (1998). *The evidence on class size*. Retrieved from New York: http://hanushek.stanford.edu/sites/default/files/publications/Hanushek%201998%20HouseTestimony%20Class%20Size.pdf

Hardin, C. J. (2012). *Effective classroom management: Models and strategies for today's classrooms* (Third ed.). Boston, USA: Pearson Education, Inc.

Hartup, W. W. (1996). The company they keep: Friendships and their developmental significance. *Child Development, 67*(1), 1-13.

Hattie, J. (2003). *Teachers make a difference: What is the research evidence?* Retrieved from http://www.decd.sa.gov.au/limestonecoast/files/pages/new20page/PLC/teachers_make_a_difference.pdf

Hearn, J. C., & Moos, R. H. (1978). Subject matter and classroom climate: A test of Holland's environmental propositions. *American Educational Research Journal, 15*(1), 111-124.

Hoffman, D. M. (2009). Reflecting on social emotional learning: A critical perspective on trends in the United States. *Review of Educational Research, 79*(2), 533-556.

Holt, S., Buckley, H., & Whelan, S. (2008). The impact of exposure to domestic violence on children and young people: A review of the literature. *Child Abuse & Neglect, 32*(8), 797-810. doi:10.1016/j.chiabu.2008.02.004

Honig, A. S. (1999). Creating a prosocial curriculum. *Montessori Life, 11*(2), 35-37.

Horstkötter, D. (2014). Self-control and normativity: Theories in social psychology revisited. *Theory & Psychology, 25*(1), 25-44. doi:10.1177/0959354314561487

Hughes, J. N., & Kwok, O.-m. (2006). Classroom engagement mediates the effect of teacher–student support on elementary students' peer acceptance: A prospective analysis. *Journal of School Psychology, 43*(6), 465-480.

Hungi, N. (2003). *Measuring the value-added by schools to student achievement across primary school grades.* (PhD Thesis), Flinders University South Australia, Adelaide.

Jang, H., Reeve, J., & Deci, E. L. (2010). Engaging students in learning activities: It is not autonomy support or structure but autonomy support and structure. *Journal of Educational Psychology, 102*(3), 588-600. doi:10.1037/a0019682

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research, 79*(1), 491.

Keeves, J. P., Hungi, N., & Afrassa, T. (2005). Measuring value added effects across schools: Should schools be compared in performance? *Studies in Educational Evaluation, 31*(2), 247-266.

Kember, D. (2000). Misconceptions about the learning approaches, motivation and study practices of Asian students. *Higher Education, 40*(1), 99-121.

Kesner, J. E. (2000). Characteristics and the quality of child-teacher relationships. *Journal of School Psychology, 28*(2), 133-149.

Klem, A. M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health, 74*(7), 262-273.

Kochenderfer, B. J., & Ladd, G. W. (1996). Peer victimization: Motivation and relations to school adjustment in kindergarten. *Journal of School Psychology, 34*(3), pp.267-283.

Koth, C. W., Bradshaw, C. P., & Leaf, P. J. (2008). A multilevel study of predictors of student perceptions of school climate: The effect of classroom-level factors. *Journal of Educational Psychology, 100*(1), 96. doi:10.1037/0022-0663.100.1.9696

Krueger, A. B. (2003). Economic considerations and class size. *The Economic Journal, 113*(485), F34-F63.

Kuperminc, G. P., Leadbeater, B. J., & Blatt, S. J. (2001). School social climate and individual differences in vulnerability to psychopathology among middle school students. *Journal of School Psychology, 39*(2), 141-159.

Kyriacou, C. (2009). *Effective teaching in schools: Theory and practice* (3 ed.). Cheltenham, England: Nelson Thornes.

LaRocque, M. (2008). Assessing perceptions of the environment in elementary classrooms: The link with achievement. *Educational Psychology in Practice, 24*(4), 289-305. doi:10.1080/02667360802488732

Larose, S., Tarabulsy, G., & Cyrenne, D. (2005). Perceived autonomy and relatedness as moderating the impact of teacher-student mentoring relationships on student academic adjustment. *Journal of Primary Prevention, 26*(2), 111-128. doi:10.1007/s10935-005-1833-3

Laursen, E. K. (2003). Principle-centered discipline. *Reclaiming Children and Youth, 12*(2), 78-82.

LeClair, C., Doll, B., Osborn, A., & Jones, K. (2009). English language learners' and non–English language learners' perceptions of the classroom environment. *Psychology in the Schools, 46*(6), 568-577.

Lee, V. E. (2000). Using hierarchical linear modeling to study social contexts: The case of school effects. *Educational Psychologist, 35*(2), 125-141.

Lee, V. E., & Loeb, S. (2000). School size in Chicago elementary schools: Effects on teachers' attitudes and students' achievement. *American Educational Research Journal, 37*(1), 3-31.

Lemlech, J. K. (2010). *Curriculum and instructional methods for the elementary and middle school* (7 ed.). Boston, USA: Allyn and Bacon.

Libbey, H. P. (2004). Measuring student relationships to school: Attachment, bonding, connectedness, and engagement. *Journal of School Health, 74*(7), 274-283.

Linnenbrink, E. A., & Pintrich, P. R. (2003). The role of self-efficacy beliefs in student engagement and learning in the classroom. *Reading & Writing Quarterly, 19*(2), 119-137. doi:10.1080/10573560390143076

Littlewood, W. (1999). Defining and developing autonomy in east Asian contexts. *Applied linguistics, 20*(1), 71-94.

Luckner, A. E., & Pianta, R. C. (2011). Teacher–student interactions in fifth grade classrooms: Relations with children's peer behavior. *Journal of Applied Developmental Psychology, 32*(5), 257-266.

MacIntyre, H., & Ireson, J. (2002). Within-class ability grouping: Placement of pupils in groups and self-concept. *British Educational Research Journal, 28*(2), 249-263. doi:10.1080/0141192012012217 6

Malecki, C. K., & Demaray, M. K. (2003). What type of support do they need? Investigating student adjustment as related to emotional, informational, appraisal, and instrumental support. *School Psychology Quarterly, 18*(3), 231.

Malecki, C. K., & Elliot, S. N. (2002). Children's social behaviors as predictors of academic achievement: A longitudinal analysis. *School Psychology Quarterly, 17*(1), 1.

Mappiasse, S. (2006). Developing and validating instruments for measuring democratic climate of the Civic education classroom and student engagement in North Sulawesi, Indonesia. *International Education Journal, 7*(4), 580-597.

Marks, H. M. (2000). Student engagement in instructional activity: Patterns in the elementary, middle, and high school years. *American Educational Research Journal, 37*(1), 153-184.

Marshall, S. (2004). *Strengthening learning through a focus on wellbeing*. Paper presented at the Research Conference 2004: Supporting Student Wellbeing. Adelaide, Adelaide: ACER.

Martin, A. J. (2007). Examining a multidimensional model of student motivation and engagement using a construct validation approach. *British Journal of Educational Psychology, 77*(2), 413-440.

Martin, A. J., & Dowson, M. (2009). Interpersonal relationships, motivation, engagement, and achievement: Yields for theory, current issues, and educational practice. *Review of Educational Research, 79*(1), 327-365. doi:10.3102/0034654308325583

Martin, A. J., & Tracey, D. (2006). Motivating students to learn. *Learning links: Helping kids learn.* Retrieved from www.learninglinks.org.au

Marzano, R. J., & Marzano, J. S. (2003). The key to classroom management. *Educational Leadership*, 6-13.

Mathieson, K., & Banerjee, R. (2010). Pre-school peer play: The beginnings of social competence. *Educational and Child Psychology, 27*(1), 79-90.

McCoach, D. B., & Black, A. C. (2008). Evaluation of model fit and adequacy. In A. A. O'Connell & D. B. McCoach (Eds.), *Multilevel modeling of educational data* (pp. 245-272). The USA: Information Age Publishing Inc.

McConnell, D. A., Steer, D. N., & Ownes, K. (2003). Assessment and active learning strategies for introductory geology courses. *Journal of Geoscience Education, 51*(2), 205-216.

McDonald, T. (2010). *Classroom management. Engaging students in learning*. Victoria, Australia: Oxford University Press.

McGrath, H., & Noble, T. (2010). Supporting positive pupil relationships: Research to practice. *Educational and Child Psychology*.

McLaughlin, C., & Clarke, B. (2010). Relational matters: A review of the impact of school experience on mental health in early adolescence. *Educational and Child Psychology, 27*(1), 91-103.

Moos, R. H., & Moos, B. S. (1978). Classroom social climate and student absences and grades. *Journal of Educational Psychology, 70*(2), 263.

Moos, R. H., & Trickett, E. J. (1974). *Classroom environment scale: Manual* (Vol. 65). California, USA: Consulting Psychologists Press Palo Alto.

Moss, E., & St-Laurent, D. (2001). Attachment at school age and academic performance. *Developmental Psychology, 37*(6), 863-874.

Murray-Harvey, R. (2010). Relationship influences on students' academic achievement, psychological health and well-being at school. *Educational and Child Psychology, 27*(1), 104-115.

Natvig, G. K., Albrektsen, G., & Qvarnstr, U. (2003). Methods of teaching and class participation in relation to perceived social support and stress: Modifiable factors for improving health and wellbeing among students. *Educational Psychology, 23*(3), 261-274.

Nelsen, J., Lott, L., & Glenn, H. S. (2000). *Positive discipline in the classroom: Developing mutual respect, cooperation, and responsibility in your classroom*. New York, USA: Three Rivers Press.

Nickolite, A., & Doll, B. (2008). Resilience Applied in School Strengthening Classroom Environments for Learning. *Canadian Journal of School Psychology, 23*(1), 94-113.

Nicol, D. J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education, 31*(2), 199-218.

Ntoumanis, N. (2001). A self-determination approach to the understanding of motivation in physical education. *British Journal of Educational Psychology, 71*(2), 225-242.

O'Leary, Z. (2004). *The essential guide to doing your research project*. London, England: Sage Publications Ltd.

O'Connor, K. E. (2008). "You choose to care": Teachers, emotions and professional identity. *Teaching and Teacher Education, 24*(1), 117-126. doi:10.1016/j.tate.2006.11.008

Opdenakker, M.-C., Maulana, R., & den Brok, P. (2012). Teacher–student interpersonal relationships and academic motivation within one school year: Developmental changes and linkage. *School Effectiveness and School Improvement, 23*(1), 95-119.

Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research, 70*(3), 323-367.

Owens, L. M., & Ennis, C. D. (2005). The Ethic of Care in Teaching: An Overview of Supportive Literature. *Quest, 57*(4), 392-425. doi:10.1080/00336297.2005.10491864

Pajares, F. (2003). Self-efficacy beliefs, motivation, and achievement in writing: A review of the literature. *Reading & Writing Quarterly, 19*(2), 139-158. doi:10.1080/10573560308222

Paris, S. G., & Paris, A. H. (2001). Classroom applications of research on self-regulated learning. *Educational Psychologist, 36*(2), 89-101.

Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology, 29*(4), 611.

Pas, E. T., Cash, A. H., O'Brennan, L., Debnam, K. J., & Bradshaw, C. P. (2015). Profiles of classroom behavior in high schools: Associations with teacher behavior management strategies and classroom composition. *Journal of School Psychology, 53*(2), 137-148.

Patrick, H., Kaplan, A., & Ryan, A. M. (2011). Positive classroom motivational environments: Convergence between mastery goal structure and classroom

social climate. *Journal of Educational Psychology, 103*(2), 367. doi:10.1037/a0023311

Patrick, H., Ryan, A. M., & Kaplan, A. (2007). Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *Journal of Educational Psychology, 99*(1), 83-98.

Pianta, R. (1999). *Enhancing Relationships between Children and Teachers* Washington, DC: American Psychological Association.

Pianta, R., & Hamre, B. (2009). Classroom processes and positive youth development: Conceptualizing, measuring, and improving the capacity of interactions between teachers and students. *New Directions for Youth Development, 2009*(121), 33-46. doi:10.1002/yd.295

Pianta, R., Hamre, B., & Allen, J. P. (2012). Teacher-student relationships and engagement: Conceptualizing, measuring, and improving the capacity of classroom interactions *Handbook of Research on Student Engagement* (pp. 365-386): Springer.

Pintrich, P. R. (2003). A Motivational Science Perspective on the Role of Student Motivation in Learning and Teaching Contexts. *Journal of Educational Psychology, 95*(4), 667. doi:10.1037/0022-0663.95.4.667

Pintrich, P. R., Marx, R. W., & Boyle, R. A. (1993). Beyond cold conceptual change: The role of motivational beliefs and classroom contextual factors in the process of conceptual change. *Review of Educational Research, 63*(2), 167-199.

Pogue, L. L., & AhYun, K. (2006). The effect of teacher nonverbal immediacy and credibility on student motivation and affective learning. *Communication Education, 55*(3), 331-344. doi:10.1080/03634520600748623

Porter, L. (2000). *Student behaviour: Theory and practice for teachers* (2 ed.). Sydney, Australia: Allen & Unwin.

Raudenbush, S., Bryk, T., & Congdon, R. (2010). HLM 7 Hierarchical Linear and Nonlinear Modeling: Scientific Software International, Inc. Retrieved from www.ssicentral.com

Raviv, A., Raviv, A., & Reisel, E. (1990). Teachers and students: Two different perspectives? Measuring social climate in the classroom. *American Educational Research Journal, 27*(1), 141-157.

Reeve, J. (2009). Why teachers adopt a controlling motivating style toward students and how they can become more autonomy Supportive. *Educational Psychologist, 44*(3), 159-175.

Reeve, J., & Jang, H. (2006). What teachers say and do to support students' autonomy during a learning activity. *Journal of Educational Psychology, 98*(1), 209-218. doi:10.1037/0022-0663.98.1.209

Reyes, M. R., Brackett, M. A., Rivers, S. E., White, M., & Salovey, P. (2012). Classroom emotional climate, student engagement, and academic

achievement. *Journal of Educational Psychology, 104*(3), 1-13. doi:10.1037/a0027268

Richards, L. (2005). *Handling qualitative data: A practical guide*. London, England: Sage Publications.

Risi, S., Gerhardstein, R., & Kistner, J. (2003). Children's classroom peer relationships and subsequent educational outcomes. *Journal of Clinical Child and Adolescent Psychology, 32*(3), 351-361. doi:10.1207/S15374424JCCP3203_04

Rockoff, J. E. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *The American Economic Review, 94*(2), 247-252.

Rogers, S., & Renard, L. (1999). Relationship-driven teaching. *Educational Leadership, 57*(1), 34-37.

Roschelle, J. M., Pea, R. D., Hoadley, C. M., Gordin, D. N., & Means, B. M. (2001). Changing how and what children learn in school with computer-based technologies. *The Future of Children, 10*(2), 76-101. doi:<hal-00190610>

Rosenfeld, L. B., Richman, J. M., & Bowen, G. L. (2000). Social support networks and school outcomes: The centrality of the teacher. *Child and Adolescent Social Work Journal, 17*(3), 205-226.

Ryan, A. M. (2001). The peer group as a context for the development of young adolescent motivation and achievement. *Child Development, 72*(4), 1135-1150.

Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal, 38*(2), 437-460.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68.

Ryan, R. M., & Deci, E. L. (2006). Self-regulation and the problem of human autonomy: Does psychology need choice, self-determination, and will? *Journal of Personality, 74*(6), 1557-1586.

Sale, J. E. M., Lohfeld, L. H., & Brazil, K. (2002). Revisiting the quantitative-qualitative debate: Implications for mixed-methods research. *Quality and Quantity, 36*(1), 43-53.

Sanders, W. L., Wright, S. P., & Horn, S. P. (1997). Teacher and classroom context effects on student achievement: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education, 11*(1), 57-67.

Scheithauer, H., Hayer, T., Petermann, F., & Jugert, G. (2006). Physical, verbal, and relational forms of bullying among German students: Age trends, gender differences, and correlates. *Aggressive behavior, 32*(3), 261-275.

Scheuermann, B., & Hall, J. A. (2012). *Positive behavioral supports for the classroom* (2nd ed.). New Jersey, USA: Pearson Education, Inc.

Schunk, D. H. (1985). Self-Efficacy and Classroom Learning. *Psychology in the Schools, 22*(2), 208-223.

Schunk, D. H., & Meece, J. L. (2005). Self-efficacy development in adolescence. In F. Panjares & T. C. Urdan (Eds.), *Self-Efficacy Beliefs of Adolescents* (pp. 71-96). New York, USA: Information Age Publishing, Inc.

Schwartz, D., Dodge, K. A., Pettit, G. S., & Bates, J. E. (2000). Friendship as a moderating factor in the pathway between early harsh home environment and later victimization in the peer group. *Developmental Psychology, 36*(5), 646. doi:10.1037//0012-1649.36.5.646

Sedaghat, M., Abedin, A., Hejazi, E., & Hassanabadi, H. (2011). Motivation, cognitive engagement, and academic achievement. *Procedia-Social and Behavioral Sciences, 15*, 2406-2410. doi:10.1016/j.sbspro.2011.04.117

Sharkey, J. D., You, S., & Schnoebelen, K. (2008). Relations among school assets, individual resilience, and student engagement for youth grouped by level of family functioning. *Psychology in the Schools, 45*(5), 402-418.

Silverman, D. (2011). *Interpreting qualitative data: A guide to the principles of qualitative research* (4 ed.). London, England: Sage Publications.

Singh, K., Granville, M., & Dika, S. (2002). Mathematics and science achievement: Effects of motivation, interest, and academic engagement. *The Journal of educational research, 95*(6), 323-332. doi:10.1080/00220670209596607

Sink, C. A., & Spencer, L. R. (2005). My Class Inventory-Short Form as an accountability tool for elementary school counselors to measure classroom climate. *Professional School Counseling, 9*(1), 37-48.

Slee, P. T. (1998). Bullying among australian primary school students. In P. T. Slee & K. Rigby (Eds.), *Children's Peer Relations* (pp. 204-214). London, England: Routlege.

Spera, C. (2005). A review of the relationship among parenting practices, parenting styles, and adolescent school achievement. *Educational Psychology Review, 17*(2), 125-146.

Stuart, W. D., & Rosenfeld, L. B. (1994). Student perceptions of teacher humor and classroom climate. *Communication Research Reports, 11*(1), 87-97.

Sutherland, K. S., Lewis-Palmer, T., Stichter, J., & Morgan, P. L. (2008). Examining the influence of teacher behavior and classroom context on the behavioral and academic outcomes for students with emotional or behavioral disorders. *The Journal of Special Education, 41*(4), 223-233.

Tableman, B., & Herron, A. (2004). School climate and learning. *Best Practice Briefs, 31*(1), 1-10.

Tashakkori, A., & Teddlie, C. (2010). *Sage handbook of mixed methods in social and behavioral research*. California, USA: Sage Publications, Inc.

Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research*. California, USA: Sage Publications, Inc.

Trickett, E. J., & Moos, R. H. (1973). Social environment of junior high and high school classrooms. *Journal of Educational Psychology, 65*(1), 93-102.

Tschannen-Moran, M., & Hoy, W. (1998). Trust in schools: A conceptual and empirical analysis. *Journal of Educational Administration, 36*(4), 334-352.

Unnever, J. D., & Cornell, D. G. (2003). Bullying, self-control, and ADHD. *Journal of Interpersonal Violence, 18*(2), 129-147.

Usher, E. L., & Pajares, F. (2006). Sources of academic and self-regulatory efficacy beliefs of entering middle school students. *Contemporary Educational Psychology, 31*(2), 125-141.

Usher, E. L., & Pajares, F. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. *Review of Educational Research, 78*(4), 751-796.

Valentine, J. C., DuBois, D. L., & Cooper, H. (2004). The relation between self-beliefs and academic achievement: A meta-analytic review. *Educational Psychologist, 39*(2), 111-133.

Vitto, J. M. (2003). *Relationship-driven classroom management: Strategies that promote student motivation*. California, USA: Corwin Press.

Wahyudi, & Treagust, D. F. (2004). The status of science classroom learning environments in Indonesian lower secondary schools. *Learning Environments Research, 7*(1), 43-63.

Walker, C. O., Greene, B. A., & Mansell, R. A. (2006). Identification with academics, intrinsic/extrinsic motivation, and self-efficacy as predictors of cognitive engagement. *Learning and Individual Differences, 16*(1), 1-12. doi:10.1016/j.lindif.2005.06.004

Wang, M.-T., & Holcombe, R. (2010). Adolescents' perceptions of school environment, engagement, and academic achievement in middle school. *American Educational Research Journal, 47*(3), 633-662. doi:10.3102/0002831209361209

Warrington, M., & Younger, M. (2001). Single-sex classes and equal opportunities for girls and boys: Perspectives through time from a mixed comprehensive school in England. *Oxford Review of Education, 27*(3), 339-356. doi:10.1080/03054980120067393

Way, N., Reddy, R., & Rhodes, J. (2007). Students' perceptions of school climate during the middle school years: Associations with trajectories of psychological and behavioral adjustment. *American Journal of Community Psychology, 40*(3-4), 194-213. doi:10.1007/s10464-007-9143-y

Weare, K., & Gray, G. (2003). *What works in developing children's emotional and social competence and wellbeing? (Research Report No. 456)* (1844780546). Retrieved from Nottingham, England:

Wentzel, K. R. (1997). Student motivation in middle school: The role of perceived pedagogical caring. *Journal of Educational Psychology, 89*(3), 411-419.

Wentzel, K. R. (1998). Social relationships and motivation in middle school: The role of parents, teachers, and peers. *Journal of Educational Psychology, 90*(2), 202.

Wentzel, K. R. (2003). Motivating students to behave in socially competent ways. *Theory Into Practice, 42*(4), 319-326.

Wentzel, K. R., Barry, C. M., & Caldwell, K. A. (2004). Friendships in middle school: Influences on motivation and school adjustment. *Journal of Educational Psychology, 96*(2), 195-203.

Wentzel, K. R., & Caldwell, K. A. (1997). Friendship, peer acceptance, and group membership: Relations to academic achievement in middle school. *Child Development, 68*(6), pp.1198-1209.

Wentzel, K. R., Filisetti, L., & Looney, L. (2007). Adolescent prosocial behavior: The role of self-processes and contextual cues. *Child Development, 78*(3), 895-910.

Whitburn, J. (2001). Effective classroom organisation in primary schools: Mathematics. *Oxford Review of Education, 27*(3), 411-428. doi:10.1080/3054980120067438

Wigfield, A., Eccles, J. S., Mac Iver, D., Reuman, D. A., & Midgley, C. (1991). Transitions during early adolescence: Changes in children's domain-specific self-perceptions and general self-esteem across the transition to junior high school. *Developmental Psychology, 27*(4), 552.

Wills, T. A., Walker, C., Mendoza, D., & Ainette, M. G. (2006). Behavioral and emotional self-control: Relations to substance use in samples of middle and high school students. *Psychology of Addictive Behaviors, 20*(3), 265. doi:10.1037/0893-164X.20.3.265

Wilson, H. K., Pianta, R. C., & Stuhlman, M. (2007). Typical classroom experiences in first grade: The role of classroom climate and functional risk in the development of social competencies. *The Elementary School Journal, 108*(2), 81-96.

Witt, P. L., Wheeless, L. R., & Allen, M. (2004). A meta-analytical review of the relationship between teacher immediacy and student learning. *Communication Monographs, 71*(2), 184-207.

Wolf, S. J., & Fraser, B. J. (2008). Learning environment, attitudes and achievement among middle-school science students using inquiry-based laboratory activities. *Research in Science Education, 38*(3), 321-341. doi:10.1007/s11165-007-9052-y

Wright, J. P., & Beaver, K. M. (2005). Do parents matter in creating self-control in their children? A genetically informed test of gottfredson and hirschi's theory of low self-control. *Criminology, 43*(4), 1169-1202.

Wubbels, T., & Brekelmans, M. (2005). Two decades of research on teacher–student relationships in class. *International Journal of Educational Research, 43*(1), 6-24.

Yeung, R., & Leadbeater, B. (2010). Adults make a difference: The protective effects of parent and teacher emotional support on emotional and behavioral problems of peer-victimized adolescents. *Journal of Community Psychology, 38*(1), 80-98. doi:10.1002/jcop.20353

Zimmerman, B. J. (1989). Models of self-regulated learning and academic achievement. In C. J. Brainerd (Ed.), *Self-regulated learning and academic achievement* (pp. 1-25). New York, USA: Springer-Verlag Inc.

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology, 25*(1), 82-91.

Zullig, K. J., Huebner, E. S., & Patton, J. M. (2011). Relationships among school climate domains and school satisfaction. *Psychology in the Schools, 48*(2), 133-145.