

# **Disruptive Students' Relationships with Their Teachers in the First Three Years of School**

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### **Statement of Candidate**

I, Kevin McGrath, certify that the work in this thesis entitled '*Disruptive Students' Relationships with Their Teachers in the First Three Years of School*' has not previously been submitted for a degree to any other university or institution. I also certify that this thesis is an original piece of research that has been written by me in accordance with Macquarie University policies and procedures. Any help and assistance that I have received, including the contributions of co-authors, are indicated and acknowledged in this thesis.

In addition, I certify that all information sources and literature used are indicated in the thesis.

Ethics approval for this research was granted by the Macquarie University Human Research Ethics Committee (Ref. 5201200257) and the NSW Department of Education and Communities (Ref. 2012046).

Signed..... (42617286)

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## CONTENTS

STATEMENT OF CANDIDATE.....	I
LIST OF ORIGINAL PUBLICATIONS.....	IV
CONTRIBUTORS AND CONTRIBUTIONS.....	V
ACKNOWLEDGEMENTS .....	VI
THESIS ABSTRACT .....	VII
CHAPTER 1: INTRODUCTION .....	1
1.1 PURPOSE OF THE STUDY .....	4
1.2 THESIS OVERVIEW .....	5
CHAPTER 2: LITERATURE REVIEW .....	7
ARTICLE I: WHO, WHEN, WHY, AND TO WHAT END? STUDENTS AT RISK OF NEGATIVE STUDENT-TEACHER RELATIONSHIPS AND THEIR OUTCOMES .....	9
2.1 SUMMARY .....	26
2.2 SIGNIFICANT TEACHER CHARACTERISTICS THAT INFLUENCE STUDENT-TEACHER RELATIONSHIP QUALITY .....	26
2.3 THE PRESENT STUDY .....	34
2.4 RESEARCH QUESTIONS .....	40
CHAPTER 3: METHODS .....	41
3.1 PARTICIPANTS .....	41
3.2 DESIGN .....	45
3.3 METHODS .....	46
3.4 ANALYTICAL APPROACH AND PRESENTATION OF FINDINGS.....	48
CHAPTER 4: STUDENTS' DRAWINGS OF THEMSELVES WITH THEIR TEACHERS .....	50
ARTICLE II: ADDING COLOUR TO CONFLICT: DISRUPTIVE STUDENTS' DRAWINGS OF THEMSELVES WITH THEIR TEACHERS .....	52
CHAPTER 5: TEACHERS' EMOTIONAL AND RELATIONAL TONE .....	81
ARTICLE III: ELEMENTARY TEACHERS' EMOTIONAL AND RELATIONAL EXPRESSIONS WHEN SPEAKING ABOUT DISRUPTIVE STUDENTS.....	82
CHAPTER 6: A QUALITATIVE INVESTIGATION OF 'COMPLICATED' RELATIONSHIPS.....	110
ARTICLE IV: "HE REALLY MEANS WELL": CLOSE RELATIONSHIPS BETWEEN ELEMENTARY TEACHERS AND THEIR DISRUPTIVE STUDENTS .....	111
CHAPTER 7: GENERAL DISCUSSION AND CONCLUSION.....	144

7.1 METHODOLOGICAL CONSIDERATIONS .....	148
7.2 LIMITATIONS.....	151
7.3 THEORETICAL AND PRACTICAL IMPLICATIONS .....	152
7.4 CONCLUSION .....	154
<b>REFERENCES.....</b>	<b>156</b>
<b>APPENDIX A. MACQUARIE UNIVERSITY ETHICS APPROVAL.....</b>	<b>170</b>
<b>APPENDIX B. DEPARTMENT OF EDUCATION ETHICS APPROVAL .....</b>	<b>172</b>
<b>APPENDIX C. TEACHER ONLINE QUESTIONNAIRE .....</b>	<b>173</b>
<b>APPENDIX D. EXPRESSED RELATIONAL TONE RATING SCALES.....</b>	<b>176</b>

### **List of Original Publications**

This thesis is based on the following four original publications, which are referred to in the text by Roman numbers I to IV. Article I has been reproduced with permission from the copyright holders. For consistency, Articles II-IV are also presented in journal article style. Australian English is used throughout (e.g. behaviour).

- I) McGrath, K. F., & Van Bergen, P. (2015). Who, when, why and to what end? Students at risk of negative student teacher relationships and their outcomes. *Educational Research Review, 14*, 1-17. doi: 10.1016/j.edurev.2014.12.001
- II) McGrath, K. F., Van Bergen, P., & Sweller, N. (accepted). Adding colour to conflict: Disruptive students' drawings of themselves with their teachers. *Elementary School Journal*.
- III) McGrath, K. F., & Van Bergen, P. (under review). Elementary teachers' emotional and relational expressions when speaking about disruptive students. *Teaching and Teacher Education*.
- IV) McGrath, K. F., & Van Bergen, P. (prepared for review). "He really means well": Close relationships between elementary teachers and their disruptive students.

### **Contributors and Contributions**

Principal Supervisor:	Dr Penny Van Bergen, Senior Lecturer, School of Education, Macquarie University
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I am grateful for the guidance of my supervisors, Dr Penny Van Bergen and Dr Naomi Sweller, and for their contributions to this research. I completed the design of this study with the assistance of Dr Van Bergen and Dr Sweller. All participant recruitment and data collection was completed by myself. I was the primary coder of all data, with double coding completed by a research assistant who was blind to the goals of the study. I also completed all analyses featured in this thesis by myself, with guidance provided by Dr Sweller on an as-needs basis. I have written all of the articles featured in this thesis as the primary author. Dr Van Bergen has contributed to each of these articles by reviewing my work and suggesting edits (minor and major). With regards to my literature review article (see Chapter 2), Dr Van Bergen specifically contributed the third paragraph of the method section, and was central to ensuring this article was within the journal's maximum word limit. Dr Sweller contributed specifically to the analyses section of Article II (Chapter 4). I have served as the corresponding author for the publications featured in this thesis. Dr Van Bergen and Dr Sweller assisted with responding to the comments made by journal reviewers and editors.

## **Acknowledgements**

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## **Thesis Abstract**

Student-teacher relationships comprise a critically important aspect of the elementary classroom. How disruptive students and their teachers experience the emotional quality of those relationships, however, is poorly understood. I examine this emotional quality in three ways. First, I used a drawing task to compare how disruptive and well-behaved students, aged 5-8 years old ( $N = 51$ ), represented the emotional quality of their relationships with different teachers. Although boys portrayed greater negativity than girls, there was no effect of student behaviour. Disruptive and well-behaved students portrayed equally positive relationships. Second, I used a speech sample task to compare teachers' ( $N = 47$ ) emotional and relational expressions when speaking about their relationships with those same students. In contrast to the findings for students, there was a significant effect for behaviour. Teachers used a more negative emotional and relational tone when speaking about disruptive students. Lastly, using teachers' speech samples I identified 'complicated' relationships (high in expressed conflict and closeness) with eight disruptive students. Examining the characteristics that might facilitate closeness, despite high conflict, I identify teachers' causal attributions and emotional competence. Together these findings yield strong implications for elementary teachers' relationships with young disruptive students and for the emotional climate of the classroom.



## **Chapter 1: Introduction**

Research over the past two decades has highlighted compelling reasons for teachers to foster positive relationships with students in the early elementary years. For example, a positive student-teacher relationship has been found to predict school engagement in Kindergarten (Doumen, Koomen, Buyse, Wouters, & Verschueren, 2012), peer relatedness up to fourth grade (Hughes & Chen, 2011), and subsequent student-teacher relationships up to fifth grade (O'Connor, 2010). Importantly, positive student-teacher relationships have also been found to protect against escalating behaviour problems during the first four years of schooling (Silver, Measelle, Armstrong, & Essex, 2005). Nonetheless, there exist a multitude of factors and characteristics that make it easier for teachers to form positive relationships with some students, and more difficult to form positive relationships with others. Central among these characteristics is student behaviour.

Disruptive student behaviour is not just problematic for effective classroom management (Rogers, 2011), it is also detrimental to the student-teacher relationship (Spilt & Koomen, 2009). Such behaviour emerges and is defined in several ways, including: antisocial behaviour (e.g. Ladd, Birch, & Buhs, 1999), aggressive behaviour (e.g. Meehan, Hughes, & Cavell, 2003), externalising behaviour (e.g. Murray & Zvoch, 2011), and difficult temperament (e.g. Griggs, Gagnon, Huelsman, Kidder-Ashley, & Ballard, 2009). Disruptive student behaviour is also discussed more broadly as any behaviour that significantly interferes with teaching or learning (Merrett & Wheldall, 1984). Common across these definitions, is the effect on teachers' relationship perceptions and emotions. While positive relationships with students elicit feelings of

joy in their teachers (Hagenauer, Hascher, & Volet, 2015), and are therefore important to teachers' job satisfaction (Veldman, van Tartwijk, Brekelmans, & Wubbels, 2013), disruptive student behaviour elicits feelings of anger and frustration (Chang, 2013; Hagenauer, Hascher, & Volet, 2015; Stuhlman & Pianta, 2001). Such emotions are detrimental to teachers' wellbeing and to the classroom climate more broadly (Jennings & Greenberg, 2009). To protect themselves from these negative emotions, some teachers may emotionally distance themselves from students who are more troublesome (Newberry & Davis, 2008) while others may react with anger or frustration. Perhaps not surprisingly then, teachers rate their relationships with disruptive students to be both high in conflict and low in closeness (e.g. Howes, 2000; Murray & Zvoch, 2011).

While a strong body of research has considered teachers' perceptions, less is known about how disruptive students themselves experience the student-teacher relationship. It is possible that students may also find it easier to form positive relationships with some teachers than others. For example, students may form less close relationships with teachers who are frequently brusque or angry. Thus, consistent with the bidirectional nature of relationships, disruptive students may perceive their relationships more negatively than other students. Findings to date, however, are equivocal. While Mantzicopoulos and Neuharth-Pritcgett (2003) show that student-perceived relational conflict is associated with teacher ratings of problem behaviour, findings from Decker, Dona and Christenson (2007) suggest that disruptive students view their relationships with teachers positively and actually want to be closer to their teachers. Perhaps because boys are more frequently identified as disruptive than girls (Beaman, Wheldall, & Kemp, 2007) student gender is also often considered. Findings from Spilt, Koomen and Mantzicopoulos (2010), for example, suggest that boys who experience non-close relationships with their teachers are likely to behave disruptively.

Studies considering boys' and girls' relationship perceptions, however, are also equivocal. For example, while some studies using a range of methodologies find that boys perceive their relationships more negatively than girls do (Koepke & Harkins, 2008; Mantzicopoulos & Neuharth-Pritcgett, 2003), others find no significant gender differences in student-teacher relationships perceptions (Decker, Dona, & Christenson, 2007; Lynch & Cicchetti, 1997; Mantzicopoulos, 2005).

Where student and teacher ratings of relationship quality have been compared, there is often only modest agreement between students' and teachers' perceptions. This is true both in early elementary school (Hughes, Cavell & Jackson, 1999; Murray, Murray, & Wass, 2008; Spilt, Koomen, & Mantzicopoulos, 2010), and in upper-elementary and early high school (Decker et al., 2007; Murray & Zvoch, 2011). For example, whilst Mantzicopoulos and Neuharth-Pritcgett (2003) reported a good match between student and teacher reports of relationship quality, Koepke and Harkins (2008) reported significant differences. Spilt, Koomen, and Mantzicopoulos (2010) suggest the modest levels of agreement between student and teacher self-reports may reflect limitations in children's information processing or differences between items within these measures. Others have questioned whether or not teacher and student reports of relationship quality investigate the same construct (Hughes, 2011), or if it is that students and teachers provide different information about these constructs (Murray, Murray, & Waas, 2008). Typically, student reports tap information about their own experiences, whereas teacher reports require teachers to consider the students' experiences rather than their own. These mixed findings to date nonetheless suggest that both students' and teachers' perceptions of relationship quality are important.

One justification for considering student and teacher perceptions is that the emotional quality of these relationships may differ for each. Indeed, the emotionality of these professional relationships is particularly unique. Teachers are expected to be in

control of their emotions, for example, and to react to inappropriate behaviours professionally: often repressing their negative emotions (Newberry & Davis, 2008). However, suggestions that teachers' emotional responses to student behaviour must be concealed may actually prevent teachers from being fully engaged with their students (Riley, 2011). In comparison, it is normal for young children to struggle with regulating their emotions (Cole, Martin, & Dennis, 2004) and more acceptable for them to externalise emotions in the classroom. Nonetheless, to date few studies have examined how young students represent the emotional tone of their relationships with different teachers, or how different elementary teachers express the emotional tone of their relationships with those same students. Understanding the emotional quality of relationships between disruptive students and their teachers is particularly important given limited evidence that some teachers can and do form close relationships with students, despite relational conflict (Henricsson & Rydell, 2004; Murray & Murray 2004; Spilt & Koomen, 2009).

### **1.1 Purpose of the Study**

The intent of this doctoral research thesis was to examine how disruptive young students and their teachers perceive the emotional quality of their relationships. The study focused on disruptive and well behaved students enrolled in the first three years of elementary schooling, and aimed to capture their relationships with multiple teachers (classroom and support teachers over two school years). To investigate how students represented the emotional quality of their relationships with teachers, a drawing task was used: inviting students to draw themselves with their teachers. Student behaviour, student gender, and teacher type were all included as variables of interest. To investigate how teachers expressed the emotional quality of their relationships with students, a speech sample task was used: inviting teachers to speak for five minutes about their relationships with these students. Student behaviour, student gender, and

teacher type were again included as variables of interest. Lastly, to investigate the characteristics of close relationships with disruptive students, a qualitative content analysis of teachers' speech was used. Using this in-depth qualitative approach, additional protective factors are identified.

## **1.2 Thesis Overview**

This thesis is presented by publication. According to the Macquarie University guidelines for Higher Degree Research, the thesis by publication format “may include relevant papers, including conference presentations, which have been published, accepted, submitted or prepared for publication... the papers should form a coherent and integrated body of work, which should be focused on a single thesis project or set of related questions or propositions” (Macquarie University, 2015). While some repetition in a thesis by publication is inevitable, every effort has been made to reduce this repetition where possible.

The thesis is organised into seven chapters, and includes four embedded publications: one thematic review article and three empirical articles. Reference lists corresponding to each publication appear in relevant chapters<sup>1</sup>. In the current chapter, I introduce my research topic and provide a broad overview of the thesis. In *Chapter 2*, I present my literature review. I include a thematic review of extant literature related to students at risk of negative relationships with teachers, which was recently published in *Educational Research Review* (2015). I also include a supplementary review of characteristics that may place some teachers at risk of negative relationships with students. In *Chapter 3*, I detail the overall research methods used to investigate student and teacher perceptions in this study. I describe my use of students' drawings as a measure of the emotional quality of these relationships, and of teachers' speech samples

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<sup>1</sup> The reference list provided at the end of this thesis includes only those references that appear outside of each publication.

to investigate teachers' expressed emotional and relational tone. Further information about each of these methods can be found in the 'method' sections of my three empirical articles, which are featured in the following chapters. *Chapter 4* includes the first of my empirical articles (Article II), in which I report my findings regarding children's drawings. This article has been accepted for publication in the *Elementary School Journal* (forthcoming). *Chapter 5* includes the second of my empirical articles (Article III), in which I report my findings regarding teachers' speech samples. This article is currently under review in *Teaching and Teacher Education*. *Chapter 6* includes my third and final empirical article (Article IV), in which I report my qualitative investigation of 'complicated' student-teacher relationships: rated high in both expressed closeness and conflict. This article has been prepared for submission to the *Asia-Pacific Journal of Teacher Education*. Finally, in *Chapter 7*, I present an overall discussion of my research findings, the implications of these findings for teachers, and my conclusions.

## **Chapter 2: Literature Review**

There are numerous student-related characteristics that may increase the risk of negative student-teacher relationships. These include disruptive behaviour but also other factors such as student gender, socioeconomic status, disabilities and academic ability. Of relevance to the current thesis, these other factors may interact with or predict disruptive student behavior. In the following article, Article I, I review these characteristics and identify outcomes of students who are at risk of experiencing negative relationships with teachers. I identify the powerfully predictive nature of student-teacher relationship quality experienced in the first years of schooling, and the protective function that positive student-teacher relationships can have for students experiencing other difficulties (such as negative child-parent relationships). I also include a description of the three theoretical frameworks used throughout this thesis: attachment theory, self-determination theory, and ecological systems theory. Finally, I conclude the article by identifying five areas that require further research. These include young elementary students' own perceptions and experiences of the student-teacher relationship, which is a key focus of this thesis.

One topic not addressed in Article I is the characteristics that may place teachers at risk of negative relationships with their students. In comparison to the large body of literature reporting the characteristics that place students at greater risk, including gender and behaviour, far less is known about whether or not some teachers experience more negative student-teacher relationships than others. Following the article, I therefore review teacher characteristics that might also compound the risk of negative student-teacher relationships. I note evidence suggesting, for example, that male teachers, those from minority backgrounds, and teachers with more years teaching

experience may be particularly at risk of negative student-teacher relationships. I conclude the chapter by highlighting the contributions of the present study to existing knowledge, including characteristics of risk and emotional quality, and stating the research questions guiding these contributions.



# Article I: Who, when, why, and to what end? Students at risk of negative student-teacher relationships and their outcomes

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## Review

## Who, when, why and to what end? Students at risk of negative student-teacher relationships and their outcomes



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### ABSTRACT

The student-teacher relationship is critically important: influencing children's academic, social, behavioural and emotional development. While much research has examined the predictors and consequences of the student-teacher relationship across the school years, no review to date has focused specifically on the characteristics and outcomes of students who are already at a heightened risk of experiencing a negative student-teacher relationship. This review explores the characteristics that place students at such risk, the periods throughout schooling when students are most at risk, the influence of previous attachment relationships, including those with other teachers and parents, and the impact that a positive or negative student-teacher relationship can have. It concludes by examining the predictive and protective functions of student-teacher relationships: both for students in mainstream cohorts and for students who are at risk.

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### Contents

1. Introduction .....	2
1.1. Theoretical orientation and definitions .....	2
2. Method .....	4
3. Who is at risk? Significant student characteristics that influence student-teacher relationship quality .....	4
3.1. Student age and physicality .....	4
3.2. Student gender .....	5
3.3. Student ethnicity and socioeconomic status .....	5
3.3.1. Student ethnicity .....	5
3.3.2. Student socioeconomic status .....	6
3.4. Student behaviour and temperament .....	6
3.4.1. Student temperament .....	6
3.4.2. Student-teacher attachment .....	7
3.4.3. Internalising and externalising disorders .....	7
3.5. Students with disabilities and learning difficulties .....	7
3.6. Student academic ability .....	7
3.7. Summary .....	8
4. When are students at risk? Developing and changing student-teacher relationships .....	8
4.1. The early school years .....	8
4.2. The high school years .....	9
4.3. Summary .....	9

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5.	Why are particular students at risk? The role of attachment .....	9
5.1.	The influence of student and teacher relationship histories on students at risk .....	9
5.2.	The influence of child–parent relationships on students at risk .....	10
5.3.	Summary .....	10
6.	What are the consequences? The influences of student–teacher relationships .....	10
6.1.	Influences on student behaviour .....	10
6.2.	Influences on peer relationships .....	10
6.3.	Influences on students' attitudes towards school .....	11
6.4.	Influences on student adjustment .....	11
6.5.	Influences on students' school attendance .....	11
6.6.	Influences on students' academic engagement and achievement .....	12
6.7.	Summary .....	12
7.	Reconceptualising the student–teacher relationship .....	12
7.1.	Student–teacher relationships are protective .....	12
7.2.	Student–teacher relationships are predictive .....	13
7.3.	Summary .....	13
8.	Conclusion .....	14
	References .....	14

## 1. Introduction

Student–teacher relationships are a highly influential aspect of a child's school experience: impacting development across social, emotional, behavioural and academic domains (Farmer, McAuliffe Lines, & Hamm, 2011; Murray & Zvoch, 2011; Roorda, Koomen, Spilt, & Oort, 2011; Silver, Measelle, Armstrong, & Essex, 2005). Importantly, given the powerful role that student–teacher relationships play, emerging research also suggests that some students are at heightened risk of experiencing a negative relationship (e.g. Decker, Dona, & Christenson, 2007; Griggs, Gagnon, Huelsman, Kidder-Ashley, & Ballard, 2009; Murray & Zvoch, 2011). Paradoxically, however, these same students have arguably more to gain or to lose from their student–teacher relationship than do other students. It is therefore critical that researchers and educators alike understand who is most likely to experience a negative student–teacher relationship, when it is that the student–teacher relationship is particularly important, why relationships differ in quality, and what these differences equate to.

Earlier reviews have investigated the associations between teacher variables (such as warmth) and affective and behavioural student outcomes (e.g. Cornelius-White, 2007), and between student–teacher relationship quality and student engagement<sup>1</sup> and achievement (e.g. Roorda et al., 2011). Additionally, conceptual and methodological frameworks used to describe the student–teacher relationship have been assessed (e.g. Kennedy, 2008; Sabol & Pianta, 2012), with some attention given to relationship-oriented interventions (e.g. Sabol & Pianta, 2012). To date however, no review has focused specifically on the plight of students who are already at risk of negative student–teacher relationships. We discuss who these students are, when they are most at risk, and why. We then discuss the specific impact that such relationships have on students who are at risk, relative to other students. Rather than focusing on the interpersonal styles of teachers or the quality of the learning environment, we discuss student–teacher relationships as dyadic constructs.

### 1.1. Theoretical orientation and definitions

The literature in this field is largely informed by three theories: attachment theory, self-determination theory (and other motivational theories), and ecological systems theory. While it is beyond the scope of our review to discuss these theories in depth, the most frequently discussed in the field is attachment theory. Attachment theory describes that caregivers in significant adult–child relationships act as a 'secure base' from which children can explore the world and return to when seeking comfort, safety or reassurance (Bowlby, 1969). While children's initial attachment is to parents, later-emerging relationships with teachers are also important. Children form internal working models (psychological representations) of these relationships, which are then used to interpret and predict the caregiver's behaviour and their own responses (e.g. see Sections 3.4 and 5). Self-determination theory (Deci, Vallerand, Pelletier, & Ryan, 1991; Ryan & Deci, 2000), in turn, describes that motivation<sup>2</sup> within the school environment is contingent upon three innate, universal and psychological needs: competence, relatedness, and autonomy (or self-determination). Of particular relevance to the student–teacher relationship is the

<sup>1</sup> Student engagement is multifaceted, with several components of student engagement discussed in the literature (e.g. Lee, 2012). Fredricks, Blumenfeld, and Paris (2004) define three types of engagement: emotional, behavioural and cognitive. Consistent with Fredricks et al. (2004), we see school engagement as being akin to cognitive engagement, and academic engagement as a subcomponent of behavioural engagement. A limitation of reviewing literature in this field is the inconsistency by which these definitions have been applied.

<sup>2</sup> While motivation and engagement are undoubtedly related, the complexities of their definitions and inherent terminology suggest they should not be viewed synonymously.

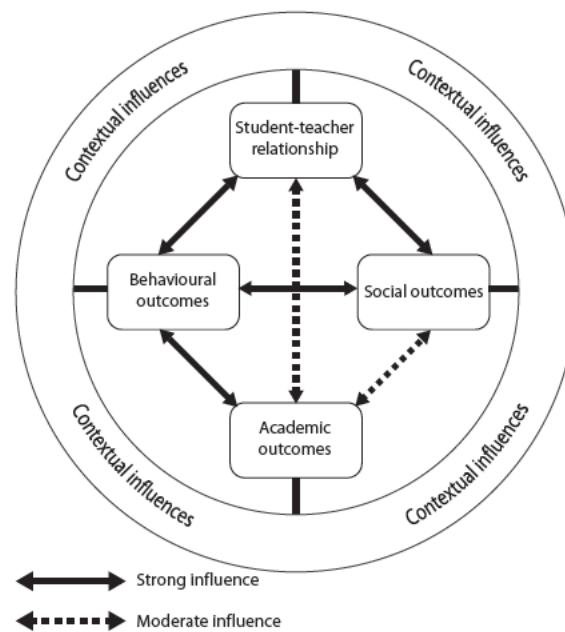


Fig. 1. Influences between the student–teacher relationship and student outcomes.

need for relatedness; that is, having secure and satisfying relationships (e.g. Furrer & Skinner, 2003; Hughes & Chen, 2011). Feelings of relatedness act as a motivational source for students, often associated with student engagement and achievement (see Section 6.6). Finally, Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1979) describes human development as contingent upon five contextual systems; the inner most of which contains dyadic relationships. Bronfenbrenner suggests that understanding the reciprocal nature of dyadic relationships is “...key to understanding developmental changes not only in children but also in adults who serve as primary caregivers—mothers, fathers, grandparents, teachers, and so on” (Bronfenbrenner, 1979, p. 5). Ecological systems theory has been used to suggest that peer acceptance is influenced by students' observations of the student–teacher relationship, as such observations may inspire similar interactions (e.g. Gest & Rodkin, 2011). Other research has investigated how a wide range of aspects of contextual systems influences student–teacher relationship quality (e.g. O'Connor, 2010). Note that these theories are complementary, not exclusive. As can be seen throughout this review, it is the combination of these theories that provides a cohesive framework of the relational, motivational and contextual aspects of the student–teacher relationship. Indeed several of the articles reviewed draw on two or three of these aforementioned theories (e.g. Hughes, Cavell, & Jackson, 1999; Lynch & Cicchetti, 1997; Ryan, Stiller, & Lynch, 1994).

Based principally on attachment theory, relationship quality is typically defined using Pianta's closeness, conflict and dependency (see Pianta, Steinberg, & Rollins, 1995), and is most often assessed using the Student–Teacher Relationship Scale (Pianta, 2001). A positive student–teacher relationship scores high in closeness and low in conflict and dependency, whereas a negative student–teacher relationship scores low in closeness and high in conflict and dependency (Pianta et al., 1995; Sabol & Pianta, 2012). We modify this definition in two ways. First, we note that dependency is not negative in all cultures (Solheim, Berg-Nielsen, & Wichstrøm, 2012), at all ages, or with all attachment histories. Thus, we rarely discuss dependency in this review (see Roorda et al., 2011, for similar theoretical approach). Second, we caution that positive and negative relationships should not be seen as synonymous with closeness and conflict. For example, a student, teacher or both may perceive their relationship to be positive despite the level of conflict. We therefore propose relationship quality be defined as positive when it is beneficial to the needs of both members of a relationship, and negative when it is harmful to the needs of either or both members of a relationship.

Considering the aforementioned theories and drawing on the following review of literature, Fig. 1 illustrates the theoretical<sup>3</sup> strength of relationships between the student–teacher relationship and student outcomes. When interpreting this interaction model, it is necessary to consider that all interactions are also informed by and contribute to one's psychology; including attitudes, emotions, temperament, and personality. Additionally, not shown in Fig. 1, certain bidirectional relationships may

<sup>3</sup> Although we present Fig. 1 as a theoretical model, not all of the strengths identified are theoretical. For example, Georges et al. (2012) report on the strong relationship between student behaviour and academic performance, and Hamre and Pianta (2001) show that student–teacher relationship quality predicts behavioural outcomes more so than academic outcomes.

be stronger in one particular direction or may have commenced in one direction before becoming bidirectional. Though it was not possible to highlight every complexity, Fig. 1 nonetheless provides a useful starting point to interpret the bidirectional influences referred to throughout this review.

## 2. Method

We draw on information from books and journal articles from the past three decades, with one classic earlier study (Pedersen, Faucher, & Eaton, 1978) also included. Our search strategy utilised three search platforms: ERIC, PsycINFO, and EBCOhost. Search terms specific to each of our following review sections were used in conjunction with variations of our common search phrase (“student–teacher relationship”) to ensure all possible sources were considered. For example, in section 3.4, “student–teacher relationship”, “behavior”, “temperament”, “internalizing” and “externalizing” were included as search terms. Results were limited to peer-reviewed journal publications in the English language. To expand the search, boolean operations were used. The reference lists of these articles were also used to identify additional relevant sources. A review of the abstracts of those additional sources was used to determine inclusion.

The combined searches culminated in the inclusion of 92 studies (75 examining student–teacher relationships and 17 on related topics) and 12 review articles (5 examining student–teacher relationships and 7 on related topics). We included studies that made a unique and independent contribution to our topic by: (i) assessing negative student–teacher relationships as an outcome variable, or (ii) comparing students with and without negative student–teacher relationships on other outcome variables. We excluded papers that focused only on positive student–teacher relationships, as well as those in which the key findings paralleled those of earlier or similar key studies in the field that we had already reviewed. To ground the paper and provide information necessary to comprehend the field, 5 books and 6 journal articles on relevant theories together with 3 other sources (a monograph, national census data, and published rating scale) were also included.

Given the inherent difficulty in randomly allocating students to an at-risk or non-at-risk condition, the empirical studies we reviewed were predominantly quasi-experimental. In a typical quasi-experimental design, two or more participant groups are compared on a variable of interest. Unlike a true experimental design, however, group membership is pre-determined. For example, to determine the impact of externalising behaviour on the student–teacher relationships of at-risk African American youths, Murray and Zvoch (2011) compared the relationships of two groups: those scoring above the clinical cut-off on the Child Behavior Checklist, and those below. A smaller number of studies we reviewed included only one participant group, and thus used correlations, regressions, or structural equation models to search for relationships between variables. For example, Troop-Gordon and Kopp (2011) used a regression analysis to determine which elements of the student–teacher relationship would predict students’ subsequent victimisation and aggression, and Rudasill, Reio, Stipanovic, and Taylor (2010) used structural equation modelling to determine the predictive path from student temperament to student–teacher conflict to student risky behaviour. Across study designs we included cross-sectional and longitudinal papers with a range of data collection approaches (such as standardised scales, observations, and self-report).

## 3. Who is at risk? Significant student characteristics that influence student–teacher relationship quality

In this section we extend existing reviews of the student–teacher relationship (e.g. Roorda et al., 2011; Sabol & Pianta, 2012) to focus specifically on the characteristics that place students at risk of a negative relationship. Although our review predominantly includes studies of mainstream students that have characteristics placing them at risk of negative student–teacher relationships, we note that some studies reviewed include participants who are also at risk of other negative outcomes. For example, Decker et al. (2007) and Murray and Zvoch (2011) both work with students at risk of referral to special education (who are also at risk of negative student–teacher relationships). Unless explicitly stated otherwise, we use the term ‘at risk’ to refer specifically to students at risk of a negative student–teacher relationship. Returning to the characteristics that place students at risk, we examine, for example, student gender, socioeconomic status, behaviour, and academic ability. Importantly, many students fit more than one of the ‘at risk’ categories below, thus enhancing their relative risk. For example, boys are also more likely to display externalising behaviours (Beaman, Wheldall, & Kemp, 2007), and students from low socioeconomic backgrounds also tend to have poorer academic achievement (McLoyd, 1998). Worryingly, many of these categories of risk are beyond the student’s control and largely immutable. Below we discuss each risk factor in turn.

### 3.1. Student age and physicality

Although social skills develop across childhood, older students nonetheless appear to form less positive relationships with teachers than do younger students (Furrer & Skinner, 2003; Lynch & Cicchetti, 1997). It may be that older students – or, indeed, those who simply appear older than their peers – are expected by teachers to act in more mature ways. Consistent with this possibility, students of Asian appearance are also seen as more conflict-adverse and less likely to challenge classroom authority (DeCastro-Ambrosetti & Cho, 2011), and more attractive students are judged more intelligent and friendly (Ritts, Patterson, & Tubbs, 1992). Furthermore, older students become less engaged in academic work (Marks, 2000), and perceive their teachers to be less supportive (Midgley, Feldlaufer, & Eccles, 1989) than do younger students. Finally, teachers may simply be more willing to nurture younger students. We further discuss relationship development across ages in Section 4.



### 3.2. Student gender

In addition to age and physicality, a large body of research utilising teacher-reports shows that girls have higher quality relationships with their teachers than do boys. Specifically, girls have closer relationships with teachers whereas boys have more conflictual relationships (e.g. Buyse, Verschueren, & Doumen, 2011; Hughes, Cavell, & Willson, 2001; Jerome, Hamre, & Pianta, 2009). Given the findings of the previous section regarding student age, older boys may be at particular risk. Where child reports of relationship quality are considered, however, findings are equivocal; some studies show that girls experience more positive relationships with teachers (e.g. Koepke & Harkins, 2008; Wu, Hughes, & Kwok, 2010), whereas others show no significant difference between genders (e.g. Hughes, 2011; Mantzicopoulos, 2005).

There are several explanations for the potential associations between student gender and the student–teacher relationship. First, teachers prefer behaviours that are considered typical of girls (Kesner, 2000), and studies in this field are heavily weighted by teacher reports. Girls tend to like school more, are more engaged and positively involved in school (Birch & Ladd, 1997), and typically exhibit higher effortful control than do boys (Silva et al., 2011). Interestingly, teacher gender may also be important. Jones and Wheatley (1990) found that female teachers gave more warnings to boys than to girls; however, male teachers gave warnings to boys and girls with similar frequency.

Second, girls are more likely to report relating to their teachers (Furrer & Skinner, 2003) and wishing to emulate their teachers (Ryan et al., 1994). This may particularly be the case given that more teachers are female (e.g. Australian Bureau of Statistics, 2013). Students report feeling more related to teachers the same gender as themselves (McGrath & Sinclair, 2013), while female (but not male) teachers also report greater closeness when gender is matched (Spilt, Koomen, & Jak, 2012).

Third, and perhaps as a consequence of the positive student–teacher relationship, girls tend to receive more academic support than do boys (Hughes et al., 2001). In comparison, boys show more school avoidance desires (Birch & Ladd, 1997), are less engaged (Marks, 2000), are less involved, and enjoy school less (Furrer & Skinner, 2003). It is not surprising then that boys are more likely than girls to have academic and behavioural problems throughout school (Hamre & Pianta, 2001). Although boys are consistently identified as being difficult to manage (Beaman et al., 2007), this may in part be a consequence of receiving more negative attention from teachers (Kesner, 2000).

Not only has student gender been associated with the quality of the student–teacher relationship; that quality, in turn, appears to affect boys and girls differently. Student–teacher relationships influence girls' academic performance more strongly than boys', yet are more strongly linked to boys' emotional engagement (Furrer & Skinner, 2003; Lee, 2012; Roorda et al., 2011). Girls with close student–teacher relationships in kindergarten have also been shown to have fewer behavioural difficulties throughout school, and boys with low levels of conflict and dependency show better long-term outcomes (Hamre & Pianta, 2001).

For the purposes of this review, it is not important to determine whether gender differences in the student–teacher relationship are driven by biology or sociology, although we acknowledge that they are almost certainly both. It is important to note, however, the degree to which such differences can be overshadowed by individual differences. For example, although boys are at greater risk of conflict, they can and do have high quality, low conflict relationships with their teachers. Moreover, while there are characteristic differences in how males and females behave, view the world, and form relationships, it is also important to note that gender differences in individual student–teacher relationships may sometimes reflect teachers' responses to generalised gender stereotypes rather than actual student behaviours (Kesner, 2000).

### 3.3. Student ethnicity and socioeconomic status

The majority of research examining the student–teacher relationship has been conducted in the United States or Western Europe, with samples predominantly consisting of Caucasian participants. Nonetheless, there are preliminary indications that minority students are more likely to experience negative student–teacher relationships. Given the association between minority status and low socioeconomic status (Emmen et al., 2013), some students are at particularly high risk.

#### 3.3.1. Student ethnicity

Research typically finds that minority students experience less close (and potentially more dependant) student–teacher relationships than their non-minority peers (e.g. Ladd, Birch, & Buhs, 1999; Wyrick & Rudasill, 2009). In the United States, for example, teachers report less positive student–teacher relationships with African American and Hispanic students than with Caucasian students (Kesner, 2000; Saft & Pianta, 2001). As teachers are more-often Caucasian, this finding may relate to the background of the teacher. Indeed, several studies show that ethnic mismatching of students and teachers is associated with negative student–teacher relationships, irrespective of minority status (Kesner, 2000; O'Connor, 2010; Saft & Pianta, 2001; Thijs, Westhof, & Koomen, 2012). Interestingly, this influence may grow over time. Murray, Murray, and Waas (2008) found that teachers' perceptions of student–teacher relationships were more negative if ethnically mismatched, yet kindergarten students' perceptions of student–teacher relationship quality did not differ.

Although it is likely that poor quality, ethnically divergent relationships reflect weak understandings about one another's cultures (Thijs et al., 2012); in some cases, language may also contribute. For example, at the beginning of the school year, Fumoto, Hargreaves, and Maxwell (2007) found that teachers rated themselves as significantly less close to preschoolers for whom English was a second language. This finding disappeared by the end of the year (it is unclear whether the

students themselves shared these changing perceptions). Poor quality relationships might also be accounted for by students' fundamentally different cultural interpretations of schooling and teacher care (Tosolt, 2009). When these expectations differ from reality, students may have trouble forming secure attachment relationships with their teachers. Following this, both teachers' and students' cultural competence may be more influential than their actual ethnicity (Decker et al., 2007).

### 3.3.2. Student socioeconomic status

Similar to the findings for minority students, students from low-income families are more likely to experience student–teacher relationships characterised by low closeness and high conflict (Ladd et al., 1999; Rudasill et al., 2010; Wyrick & Rudasill, 2009). They are also more likely to engage in risky behaviours (Rudasill et al., 2010) and to be considered aggressive (Letourneau, Duffett-Leger, Levac, Watson, & Young-Morris, 2013), particularly if they are also boys or have difficult temperaments (e.g. Veenstra, Lindenberg, Oldehinkel, De Winter, & Ormel, 2006). Finally, they are more likely to have academic problems (Jimerson, Egeland, & Teo, 1999) and to leave school early (Brooks-Gunn & Duncan, 1997; Duncan, Brooks-Gunn, Yeung, & Smith, 1998).

The association between socioeconomic status and school outcomes has important implications for teachers who are building relationships with students from socioeconomically disadvantaged backgrounds. These associations may form part of a larger cyclical effect, in which students from disadvantaged backgrounds more frequently experience academic problems in school, which in turn translates to poorer adulthood employment and continued low socioeconomic status (McLoyd, 1998; Whiston & Keller, 2004). Teachers who work deliberately to enhance their students' academic self-efficacy and learning skills, irrespective of their students' current academic performance, may also be more effective in fostering the kinds of positive student–teacher relationships that help to break this cycle (Rey, Smith, Jina, Somers, & Barnett, 2007).

### 3.4. Student behaviour and temperament

Above, when discussing the plight of boys, we suggest that one explanation for the association between gender and relationship quality may be that boys are more likely to be perceived as disruptive. Likewise, we showed that students with low socioeconomic status are also more likely to be considered aggressive (Letourneau et al., 2013). Not surprisingly, literature supports the notion that all students who behave disruptively, aggressively, or antisocially are at greater risk of experiencing negative relationships with their teachers (e.g. Murray & Greenberg, 2001; Murray & Murray, 2004; Murray & Zvoch, 2011). The effects are marked. For example, students perceived as sociable in preschool have positive student–teacher relationships in kindergarten (Howes, Phillipsen, & Peisner-Feinberg, 2000), whereas students with antisocial behaviour in kindergarten have poorer student–teacher relationships in fifth grade (O'Connor, 2010; also see Birch & Ladd, 1998). Sadly, those latter students are also at greater risk of being rejected by their peers (Ladd et al., 1999).

While these findings are perhaps not surprising, they nonetheless pose a significant educational problem. Parents often decrease their involvement and guidance of children with behavioural problems (Dishion, Nelson, & Bullock, 2004), thus heightening the importance of positive relationships with teachers. However, teachers too often find it difficult to form positive relationships with students whose behaviour is problematic: particularly as interactions with such students are often angry, critical, and punishing (Hughes et al., 2001; Lewis, Romi, Qui, & Katz, 2005). Furthermore, it is likely that students who perceive a negative relationship with their teacher will continue to behave in adverse ways (Mercer & DeRosier, 2010). In contrast, students who are well adjusted may be “more prone to view teachers in a positive manner and/or draw out of them greater relational supports” (Ryan et al., 1994, p. 244).

We discuss three factors that systematically affect student behaviour in the classroom: student temperament, student attachment to the teacher, and internalising and externalising disorders.

#### 3.4.1. Student temperament

There are a number of environmental factors that may contribute to a student behaving unfavourably. For example, they may find schoolwork too difficult, have an unstable family life, or feel frustrated with their teacher. Nonetheless, even a student with a loving and stable home life, significant academic aptitude, and affection for their teacher and peers may at times behave impulsively or aggressively in the classroom. For this reason, student temperament must also be considered a risk factor for poor student–teacher relationship quality.

Temperament can be understood as consistent individual differences in “biological mechanisms and their behavioral consequences” (Rothbart & Posner, 2005, p. 102). Students with different temperaments therefore demonstrate different abilities to control their reactivity to stimulation (Rothbart & Posner, 2005). Temperament is widely thought to be genetic (Crist & McCord, 2010), relatively stable through childhood (Rothbart & Posner, 2005), and predictive of personality in early adulthood (Caspi & Silva, 1995).

Caspi and Silva (1995) identify five temperament groups: undercontrolled, inhibited, confident, reserved, and well adjusted. Aggression, antisocial behaviour, and disruptive behaviour are all typical of an undercontrolled temperament. In turn, they are associated both with poor student–teacher relationships (Hamre & Pianta, 2001; Ladd et al., 1999), and poor self-perceptions (Henricsson & Rydell, 2004). Students with undercontrolled temperaments may therefore appear more aggressive, frustrated and unhappy than other students, whereas well-regulated students are more likely to have positive interactions with teachers (Silva et al., 2011). Adolescents with more difficult temperaments have also been shown to have both more conflictual student–teacher relationships and an increased likelihood of engaging in risky behaviour (Rudasill et al., 2010).

### 3.4.2. Student–teacher attachment

In addition to temperamental differences, student aggression may also be a function of attachment to the teacher. According to attachment theory, loss, anxiety and anger are interrelated (Bowlby, 1988). Drawing on the now-classic ideas of Bowlby (1988), who suggests that aggression serves important functions in both child–parent relationships (e.g. when a sibling is jealous of a new born baby) and adult relationships (e.g. when a spouse suspects a partner is disloyal), we suggest that anger may be perceived by some students as an appropriate tool to maintain proximity and communication with their teachers. For example, a student who feels neglected by the teacher and fears the loss of that relationship may behave aggressively towards his or her peers: particularly if they already have an insecure attachment model. The aggressive behaviour becomes a means to an end: serving to protect the attachment relationship.

We further suggest that whether or not teachers themselves interpret students' aggression as a mechanism to protect the relationship, and thereby respond with reassurance rather than reactive aggression, is key in preventing escalating conflict. Such interpretations are likely to depend upon the teachers' own attachment relationships. For example, a securely attached teacher's own instances of aggression, if any, are likely to stem from frustration with student behaviour. However, Riley (2009, p. 628) suggests that for the insecurely attached teacher, student rejection may "inevitably lead to protest behaviours, including overt and covert aggression directed toward the students, to reduce the separation anxiety caused by the actual (or perceived) rejection".

### 3.4.3. Internalising and externalising disorders

While the vast majority of students' disruptive and challenging behaviour is normative, driven by differences in temperament, attachment, or environment, the influence of internalising and externalising disorders must also be considered. Internalising disorders include anxiety and depression; while externalising disorders, including conduct disorder and attention deficit hyperactivity disorder, are characterised by behaviours that are destructive, defiant, or otherwise demanding (Henricsson & Rydell, 2004). Research shows that students with internalising disorders tend to experience more dependent and conflictual student–teacher relationships than do untroubled students (Henricsson & Rydell, 2004; Kennedy, 2008). Perhaps because their behaviour has a more noticeable impact on others; however, students with externalising disorders are at even greater risk of a negative student–teacher relationship (Henricsson & Rydell, 2004; Murray & Zvoch, 2011). Such students report more conflict with their teachers, less positive self-perceptions (Henricsson & Rydell, 2004), lower trust in their relationships with teachers (Murray & Zvoch, 2011), and, at least in adolescence, less secure attachment relationships with parents and peers (Allen, Porter, McFarland, McElhaney, & Marsh, 2007).

Although the relationship between student–teacher conflict and student aggression is likely bidirectional, longitudinal evidence suggests that student aggression is sufficient to commence this cycle. For example, even aggressive behaviour (taken as an indicator for externalising behaviour) measured upon entry to kindergarten predicts increasing student–teacher conflict later in that school year (Doumen et al., 2008). Without intervention, we suggest the cycle between aggressive behaviour and student–teacher conflict is likely to continue.

### 3.5. Students with disabilities and learning difficulties

Just like students with externalising disorders, students with disabilities and learning difficulties typically also experience student–teacher relationships characterised by greater conflict and lower levels of closeness (Murray & Greenberg, 2001, 2006; Murray & Murray, 2004). First, such students are more likely to engage in negative behaviours and to have lower self-esteem, and they also typically experience less family connectedness: a significant risk factor for poor-quality student–teacher relationships (see Rudasill et al., 2010). Second, given that such students may require additional time and effort from the teacher by way of differentiated support, we suggest teacher beliefs about inclusive education may contribute.

Interestingly, the type of difficulty or disability experienced is critical. In the most comprehensive study to date, Murray and Greenberg (2001) compared the student–teacher relationships of 289 fifth- and sixth-grade students who were either enrolled in special education classrooms for emotional disturbances (including internalising and externalising symptomology), learning difficulties, mild intellectual disability, or attention deficit disorder; or who had no disabilities and were enrolled in mainstream classrooms. Those with emotional disturbances or mild intellectual disability had the poorest student–teacher relationships. We discuss above (Section 3.4.3) how externalising behaviour associated with emotional disturbance impacts teachers' perceptions of students; however, it is unclear why those with mild intellectual disability are also in this group.

### 3.6. Student academic ability

In addition to students' demographic background, temperament, disabilities and learning difficulties, academic ability is associated with student–teacher relationships. Low-achieving students are less likely to experience a positive student–teacher relationship than are high-achieving students (Hamre & Pianta, 2001), and also receive less praise and positive attention (Midgley et al., 1989) than their more successful peers. Importantly, however, Midgley et al. (1989) suggests that lower achieving students' motivation may nonetheless be particularly dependent upon the teacher (higher achieving students are sustained by their academic success). Thus, although lower achieving students are at greater risk of experiencing a poorer quality student–teacher relationship, they benefit more from this relationship than do their higher achieving peers (Section 6.6). Interactions

with other risk factors should also be noted, with students from lower socio-economic backgrounds, minority students, and students with disruptive behaviour each less likely to achieve in the classroom (McEvoy & Welker, 2000; McLoyd, 1998).

### 3.7. Summary

Multiple student characteristics are associated with the student–teacher relationship. Firstly, older students are at greater risk of experiencing negative student–teacher relationships than are younger students. Secondly, boys are at greater risk of experiencing negative student–teacher relationships than are girls. Thirdly, students from minority and low socioeconomic backgrounds are at greater risk of experiencing negative student–teacher relationships, thus facilitating a cycle of disadvantage. Fourthly, despite troubled students typically wanting to feel closer to their teachers, poor behaviour can instead place them at risk of a negative relationship (Decker et al., 2007). This is particularly so for students with difficult temperaments, externalising disorders, or who behave disruptively, antisocially, or aggressively for other reasons. Lastly, low-achieving students typically form poorer quality relationships with their teachers than do high-achieving students.

Of course, many students will fit more than one of these ‘at risk’ categories, thus resulting in compounded risk of poor relationships with teachers. For example, we highlight above how boys are more likely to be perceived as disruptive, how minority students are also more likely to come from low socioeconomic backgrounds, and how students with behavioural difficulties are less likely to succeed academically. While the exact extent to which risk is heightened by fitting multiple risk factors is not yet known, it is nonetheless clear that the students most at risk of experiencing a negative student–teacher relationship are the same students who would benefit from these relationships the most.

## 4. When are students at risk? Developing and changing student–teacher relationships

We note above that older students are at particular risk of experiencing negative student–teacher relationships. As children advance from kindergarten through high school, decreases in overall relationship quality, perceived closeness, and supportiveness are observed (Feldlaufer, Midgley, & Eccles, 1988; Furrer & Skinner, 2003; Karcher, 2008; O’Connor, 2010), as are increases in conflict (Jerome et al., 2009).

Caution is required in interpreting these results, as methodologies for investigating the student–teacher relationship also differ across the school years. For example, teachers are typically asked to rate the student–teacher relationship quality during the preschool and primary years, often using the Student Teacher Relationship Scale, whereas the relationship quality of students in high school is sometimes measured using student reports (Hughes, 2011). Additionally, a limitation of this review and others is the assumption that teachers in different school systems can be compared.<sup>4</sup> For example, primary students will typically interact with just one main teacher a week and stay with that teacher throughout the year. High school students may instead interact with several teachers a week. Notwithstanding these concerns, however, we note that the impact of a negative student–teacher relationship also appears to differ between younger and older students. For example, while students’ relatedness (a motivational self-system informed by feelings of closeness) to teachers decreases in high school, the impact of relatedness on student academic engagement increases (Furrer & Skinner, 2003).

To investigate these impacts we expand on the student–teacher relationship at two key periods of schooling: the early school years, and the high school years. Due to the paucity of literature focusing specifically on the middle school years this period has been omitted from our review. However we acknowledge that throughout middle childhood, student–teacher closeness decreases (Jerome et al., 2009; Lynch & Cicchetti, 1997). This may be particularly true for students with behavioural problems (O’Connor, 2010), with implications for rule compliance, student motivation, and connectedness to school (Rey et al., 2007).

### 4.1. The early school years

Given that kindergarten serves as an introduction to school life, it is particularly important that kindergarten student–teacher relationships be characterised by high levels of closeness and warmth and low levels of conflict. A negative student–teacher relationship in kindergarten has lasting effects on student adjustment (Pianta et al., 1995), achievement (Silva et al., 2011), and on student behavioural engagement and perceptions of school (Doumen, Koomen, Buyse, Wouters, & Verschueren, 2012; Silva et al., 2011).

Critically, relationship patterns established early in school appear relatively stable (Howes et al., 2000; Pianta et al., 1995). School trajectories are well established by third grade (Alexander & Entwisle, 1988): indeed, even kindergarten student–teacher relationships predict subsequent student–teacher relationships in the primary years (O’Connor, 2010). However, despite the degree to which the overall quality of students’ relationships with their teachers remains stable, this is not true of all relationship dimensions. In particular, student and teacher closeness appears less stable than conflict or dependency (Pianta et al., 1995). This may be because, as identified in an earlier review, conflict is often seen as being student-driven, whereas

<sup>4</sup> A further limitation of this body of literature is that different ‘types’ of teachers and non-mainstream schools are not accounted for. For example, students may form relationships with casual teachers, teacher librarians, subject-specific teachers, or teachers in special education settings in characteristically different ways.



closeness is more dyadic and therefore depends on both student and teacher (Roorda et al., 2011). We suggest that conflict is also dyadic; however, the perception that the student is to blame, coupled with poorly regulated reactivity from the student, may lead teachers to persist with unproductive behaviours that perpetuate the conflict.

#### 4.2. *The high school years*

Surprisingly, given the importance of early childhood education, a strong body of evidence across the past two decades suggests that the student–teacher relationship is especially important for school engagement and academic performance as students enter high school (see Roorda et al., 2011). For example, when students with a primary school mathematics teacher low in support transition to a high-school mathematics teacher high in support, they reported valuing mathematics more (Midgley et al., 1989). Those with a high school teacher low in support subsequently perceive mathematics to be less valuable. Even after this initial transition period, adolescents with positive student–teacher relationships continue to do better emotionally, behaviourally and academically (Murray & Zvoch, 2011).

Despite the importance of the student–teacher relationship in high school, these relationships typically decrease in quality (Lynch & Cicchetti, 1997). At the same time, students' disruptive behaviour increases (Beaman et al., 2007). While some researchers suggest that teachers appear to become less caring, warm, friendly, and supportive as students get older (Feldlaufer et al., 1988; Midgley et al., 1989), it is unclear whether this is a cause or an outcome of declining student–teacher relationships. It is also important to note that secondary students typically spend significantly less time with an individual teacher during a school year than do primary students, and that this too may result in less student–teacher closeness overall.

Although the gradual decline in student–teacher relationship quality is concerning, it has long been considered normative (Murray & Zvoch, 2011). Across adolescence, students become steadily more independent and their relationships with peers become more important (Lynch & Cicchetti, 1997). Nevertheless, adolescents are more likely than younger students to turn to teachers for academic and emotional support (Ryan et al., 1994) – perhaps seeing teachers as disciplinary experts who can offer career guidance and autonomy. It is, however, unclear the extent to which students at risk of negative student–teacher relationships capitalise on these opportunities. Indeed, interventions aimed at improving student–teacher relationships for adolescents at risk of experiencing negative social and emotional outcomes have proven particularly difficult (Murray & Malmgren, 2005).

#### 4.3. *Summary*

While student–teacher relationships are important at all times throughout schooling, the effects they have on students change across time. Unfortunately, the news for students progressing through school is not positive. Although positive student–teacher relationships become increasingly influential, student–teacher relationship quality decreases. Such decline may be considered normative; however, this view overshadows the important benefits of a positive student–teacher relationship for students most at risk.

### 5. **Why are particular students at risk? The role of attachment**

To understand why particular students are at increased risk of experiencing a negative student–teacher relationship, over and above the specific risk factors we have discussed previously, it is helpful to draw again on attachment theory. Attachment theory suggests that relationships between children and caregivers are influenced by each of their other relationships, both past and present (Bowlby, 1969, 1973, 1980; see Fitton, 2012 for review). For example, students' perceptions of appropriate teacher support are based predominantly on their previous experiences with parents and other teachers (Kesner, 2000; Wu et al., 2010). These experiences contribute to the development of internal working models (Bowlby, 1973; Fitton, 2012), which are then used to guide future expectations. Thus, relationships become somewhat self-perpetuating. There are, however, important differences between child–parent and student–teacher relationships (see Kesner, 2000). We discuss below the significant associations between past and present student–teacher relationships.

#### 5.1. *The influence of student and teacher relationship histories on students at risk*

Because internal working models become more resistant to change over time, early student–teacher relationships have a strong influence on subsequent attachment relationships. Students with a history of negative student–teacher relationships may feel a strong antipathy towards their teachers. Consistent with this view, kindergarten students who have negative student–teacher relationships continue to experience more conflictual relationships with teachers at fifth grade (O'Connor, 2010). Additionally, adolescents with insecure attachment histories have been shown to behave more disruptively at school than have other students, and also report viewing the world as being unresponsive to their needs (Kennedy, 2008). Teachers who react negatively to these students' behaviours may unknowingly strengthen the students' internal working models: thus nursing a detrimental cycle.

When determining the degree to which approaches to facilitate students' attachment relationships will be successful, two factors are relevant. First, given that attachment relationships are inherently bidirectional, the teachers' own attachment history should also be considered. Riley (2009, p. 634) suggests that: "...some teachers are seeking corrective emotional

experiences through attachment bonds with students". If this is the case, these teachers may be vulnerable to feeling rejected by students: thus explaining any aggression they may exhibit (Riley, 2009). Teachers who remember their own relationships positively are instead more likely to have secure relationships with their students (O'Connor, 2010). There are suggestions that even pre-service teachers' attachment history is influential, meaning they may enter university with a model of the student–teacher relationship already in mind (Kesner, 2000).

Second, the degree to which teachers are aware of students' histories with other teachers may influence their own relationships. For example, if aware that a student has had other relationships characterised by conflict, a teacher may reprimand the student more strongly, or provide fewer warnings, because they already view the student as troublesome. This dynamic may be even more problematic given evidence that a teacher's internal working model of their relationship with a student is cemented early in the school year and changes very little throughout that year (Doumen et al., 2012).

### 5.2. *The influence of child–parent relationships on students at risk*

A child's relationship with parents also influences the quality of his or her relationships with teachers (O'Connor & McCartney, 2006): particularly in early primary school, when children expect similar security and care from both parents and teachers. O'Connor (2010) found that students who receive greater support and stimulation at home have higher quality student–teacher relationships, perhaps due to the presence of positive working models, while Wyrick and Rudasill (2009) found that students with lower parental involvement experience greater conflict with teachers. Such students were more likely to distrust others, to behave disruptively at school (Brook, Lee, Finch, & Brown, 2012; Dishion et al., 2004), to exhibit poorer emotion control skills (Van Bergen & Salmon, 2010), and to struggle with task difficulty and motivation (Murray, 2009; Ranson & Urchuk, 2008).

### 5.3. *Summary*

Attachment histories with parents and teachers influence current and future student–teacher relationships. Negative student–teacher relationship histories shape students' and teachers' expectations, whereas negative child–parent relationships also lend themselves to lower school engagement and behavioural problems. Where a positive new relationship forms despite these predictions, the impact may be particularly powerful: reshaping students' working models of relationships and thereby promoting adaptive and pro-social behaviours.

## 6. **What are the consequences? The influences of student–teacher relationships**

For students at risk of negative student–teacher relationships, relationship quality has particularly strong consequences: influencing students' behaviour, relationships with peers, attitudes towards school, school adjustment, school attendance, and academic engagement and achievement.

### 6.1. *Influences on student behaviour*

In Section 3.4 above, we showed that students with behaviour problems are at a heightened risk of experiencing negative student–teacher relationships. Not surprisingly, a bidirectional relationship is observed: the student–teacher relationship also influences student behaviour. For example, positive student–teacher relationships have been associated with reduced aggression (Meehan, Hughes, & Cavell, 2003) and, importantly, may have a remedial influence on aggressive students' trajectories (Hamre & Pianta, 2001; Hughes et al., 1999). In addition to being better behaved, at-risk students who form positive relationships with teachers also report feeling more connected and interested in school (Rey et al., 2007).

To investigate the characteristics of the student–teacher relationship for students already experiencing behavioural difficulties, Decker et al. (2007) interviewed 44 primary-aged students at risk of referral to special schooling. Interestingly, despite teachers typically rating their relationships with these students negatively, students reported wanting to be closer to their teachers and viewed their student–teacher relationships positively. According to Decker et al. (2007, p. 103), "it is possible that the behaviors the students perceive as helping them become closer to their teachers are actually the behaviors that push teachers further away". As for mainstream students, improved student–teacher relationships positively affected the students' social, behavioural and emotional engagement outcomes, and also resulted in a reduction in suspensions. A small number of interventions involving students with behavioural difficulties in preschool and primary school have also demonstrated that improving student–teacher closeness reduces student behaviour problems (Driscoll, Wang, Mashburn, & Pianta, 2011; Morrison & Bratton, 2010; Tsai & Cheney, 2012). However, further research examining interventions of high school students' behavioural trajectories is needed.

### 6.2. *Influences on peer relationships*

Given that negative student–teacher relationships influence student behaviour, it is not surprising that they also influence students' peer relationships. Several studies highlight this influence in the pre-school and early primary school years (Griggs et al., 2009; Howes, 2000; Howes, Hamilton, & Matheson, 1994; Howes, Matheson, & Hamilton, 1994; Hughes et al.,

2001; Hughes & Chen, 2011; Hughes & Kwok, 2006) and others report this influence in older cohorts (Gest & Rodkin, 2011; Hamm, Farmer, Dadisman, Gravelle, & Murray, 2011; Luckner & Pianta, 2011; Roland & Galloway, 2002; Troop-Gordon & Kopp, 2011).

Ecological systems theory (Bronfenbrenner, 1979) suggests that peer relationships are contingent not just on student behaviour but also on contextual influences. More specifically, other students make inferences about their peers' likability, academic competence, and social competence based partially on their observations of a teacher's interactions with those peers (Hughes et al., 2001; see also Davis & Lease, 2007). These effects have been seen from just four years of age, with students inclined to avoid interactions with peers who they believe their teacher dislikes despite the nature of their own interactions with those peers (Howes, Matheson, et al., 1994; Ladd et al., 1999). Recent research suggests that this effect is also multi-directional, with teachers and students concurrently impacting each other's views of other students (Hughes & Chen, 2011). Individual student-teacher relationships also set the tone for the classroom climate more broadly, thus indirectly impacting the social dynamics of the class (Farmer et al., 2011).

Considering the powerful influence of the student-teacher relationship on peer relationships, Hughes et al. (2001) argue that: "increasing teacher support may offer an important and underutilized avenue for improving aggressive and rejected children's peer acceptance" (p. 299). While student-teacher closeness among students in the upper primary years does not appear to protect against peer victimisation directly, research does show that students who are more dependant experience greater victimisation and fewer friendships (Roland & Galloway, 2002; Troop-Gordon & Kopp, 2011). Support for such students' autonomy may buffer against this effect. Teachers who are attuned to peer group affiliations have also been shown to improve adolescents' sense of school belonging more broadly (Hamm et al., 2011); thus further highlighting a role for teacher support. For students at risk of negative student-teacher relationships, especially those with undercontrolled temperaments or internalising symptomology (see Section 3.4), experiencing a positive relationship with a teacher may have particularly strong effects on peer relationships.

### 6.3. Influences on students' attitudes towards school

Student-teacher relationships also influence students' attitudes towards school. Such attitudes are critical, as they drive both emotional adjustment and academic engagement. In a recent study by Hauser-Cram, Durand, and Warfield (2007), for example, students with poor attitudes towards school in kindergarten had lower academic achievement in fifth grade. Interestingly, the association is reciprocal, with teachers reporting closer relationships with students they perceive to have more positive attitudes, and closer relationships in turn drive more positive attitudes (Birch & Ladd, 1997).

Although research has predominantly focused on mainstream cohorts, Silva et al. (2011) utilised an economically disadvantaged and ethnically diverse sample to investigate the relationship between student-teacher relationships, student effortful control, and student attitudes to school. The relation between effortful control and attitudes towards school was mediated by student-teacher relationship quality. This finding shows that attitudes to school may be improved by improving not just students' self-regulatory abilities but also through stronger relationships with teachers. We suggest that these findings are especially important for students at risk of negative student-teacher relationships because of poor academic performance, low socioeconomic status, or a difficult temperament; as such students may already be disposed to forming negative attitudes towards school.

### 6.4. Influences on student adjustment

While student-teacher relationships drive student attitudes to school across the school years, they are particularly important for students' adjustment (socio-emotional, behavioural, and academic) (e.g. Arbeau, Coplan, & Weeks, 2010; Birch & Ladd, 1997; Murray & Greenberg, 2000, 2001; Pianta & Stuhlman, 2004; Silver et al., 2005). For example, Pianta and Steinberg (1992) showed that students whose social, academic or behavioural functioning placed them at risk of repeating the kindergarten year were more likely to move ahead if they had a positive student-teacher relationship, and more likely to repeat if they had a negative relationship. Similar findings emerge for research examining adolescents' emotional and behavioural adjustment to high school (Murray & Zvoch, 2011), and particularly for their academic adjustment (Roorda et al., 2011). A negative student-teacher relationship, particularly if experienced by low achieving students and those with behavioural difficulties, is likely to have dire consequences on student adjustment. Nevertheless, times of transition and other turmoil may offer valuable opportunities for teachers to both modify students' internal working models of their relationships and concurrently ensure healthy functioning.

### 6.5. Influences on students' school attendance

Despite extensive research on other contributing factors (see (De Witte, Cabus, Thyssen, Groot, & van den Brink, 2013), very little is known about how the quality of student-teacher relationships affect school attendance; however, we suggest that students who do not feel connected to school or who perceive greater conflict with teachers may attend school less than other students. Hence, student attendance would fall under 'behavioural outcomes' in our theoretical model (see Fig. 1). Students with positive student-teacher relationships report feeling more connected to school and are more involved in school-related activities (Rey et al., 2007), which in turn, may deter delinquent behaviours and protect against truancy (Murray &

Greenberg, 2001). In contrast, students who perceive low levels of teacher support report wanting to avoid school (Murray et al., 2008). Conflict with teachers in kindergarten and first grade has also been shown to increase school avoidance desires (Arbeau et al., 2010): particularly for boys (Birch & Ladd, 1997). Only two studies to our knowledge have collected actual school attendance data. While Davis and Lease (2007) found that students with poorer student–teacher relationships also had more absences from school, Murray and Murray (2004) found no direct relationship once student demographic variables (age, gender, ethnicity) and effort in class were also taken into account. Further investigation is therefore required (see Lessard, Poirier, & Fortin, 2010).

#### 6.6. Influences on students' academic engagement and achievement

We show above how the student–teacher relationship influences students' behaviour, attitudes to school, and, potentially, attendance. Not surprisingly, recent research also confirms a relationship between the student–teacher relationship, student engagement, and academic performance (e.g. Crosnoe, Johnson, & Elder, 2004; Lee, 2012; Wu et al., 2010). In their meta-analysis of 99 studies, Roorda et al. (2011) showed that the association between student–teacher relationships and academic performance is particularly strong in the case of negative relationships, and particularly in the primary years. Effects are especially detrimental for students already at academic risk who experience a negative student–teacher relationship. Positive relationships only appeared to influence high school students' achievement and were not related to achievement in the primary years. For example, in a study of 1310 kindergarten- to fifth-grade students with learning difficulties, Baker (2006) showed that although a positive student–teacher relationship was socially beneficial for students, it was not associated with increased academic achievement.

In line with self-determination theory, feelings of relatedness to teachers may either elicit and sustain, or subdue and diminish students' intrinsic motivation (see Ryan & Deci, 2000). When the student–teacher relationship is negative, students are less motivated to engage in schooling and subsequently perform more poorly on academic tasks (Hughes et al., 1999). In a study of 761 first through to second grade students, Liew, Chen, and Hughes (2010) found that high achieving students performed well on an accuracy task, irrespective of their relationship with the teacher, whereas lower achieving students performed well only when they experienced a positive student–teacher relationship. These findings suggest that a negative student–teacher relationship and pre-existing academic problems are a particularly difficult combination for students to overcome. Such difficulties have been reported in particular in students with emotional and behavioural problems, who are already at risk of a negative student–teacher relationship (Murray & Malmgren, 2005).

#### 6.7. Summary

The consequences of experiencing a negative student–teacher relationship are extensive, including: antisocial behaviour, peer rejection, negative attitudes towards school, adjustment difficulties, lower school attendance, and poorer academic engagement and achievement. However, when students at risk of experiencing negative student–teacher relationships nonetheless experience a positive relationship, the benefits are particularly valuable: reducing student aggression, acting as a catalyst for positive peer relationships, improving students' attitudes towards school (particularly for students who perceive school to be a hostile and unsafe environment), and facilitating social, behavioural, emotional, and academic adjustment. Interestingly, positive student–teacher relationships do not appear sufficient to enhance students' academic achievement: however, they are nonetheless critically important.

### 7. Reconceptualising the student–teacher relationship

In the previous section, we highlight the benefits of positive student–teacher relationships; particularly for students already at risk of a negative relationship. We conclude that the student–teacher relationship has two significant functions, being both protective and predictive. In this final section, we expand on both functions, considering not just school-based outcomes, but also outcomes later in life.

#### 7.1. Student–teacher relationships are protective

Having a positive relationship with a teacher can serve an important protective function for all students (Murray & Greenberg, 2001; Resnick et al., 1998, cited in Hamre & Pianta, 2001; Rey et al., 2007), with strong associations observed between the quality of student–teacher relationships and student resiliency (Decker et al., 2007). Positive student–teacher relationships guard against the negative effects of stressful life events (Hawkins & Catalano, 1992, cited in Murray & Greenberg, 2001), and against negative emotions (Furrer & Skinner, 2003) and poor adjustment for students with socio-emotional difficulties (Arbeau et al., 2010). Additionally, they may also facilitate positive adaptation for those at risk of failure or of referral to special education settings (Decker et al., 2007; Pianta et al., 1995). This may particularly be the case for students with behavioural difficulties; with a positive student–teacher relationship found to protect against maladaptive, risky behaviour for students with a difficult temperament (Rudasill et al., 2010, see also Griggs et al., 2009) and against escalating behaviour problems for students with externalising behaviour problems (Hamre & Pianta, 2001; Silver et al., 2005).

Furthermore, positive student–teacher relationships may compensate for negative child–parent relationships (Buyse et al., 2011; Hughes et al., 1999). In a longitudinal study of 127 students, Buyse et al. (2011) investigated child–mother relationships when children were in preschool and student–teacher relationships when children were in kindergarten. Their findings showed that students with less secure child–mother relationships who experienced high student–teacher closeness the following year were less likely to display aggressive behaviour than those who experienced low student–teacher closeness. Students who experienced poor student–teacher relationships, however, were more likely to behave aggressively despite the quality of their child–mother relationships. Importantly, closeness was guided by teachers as well as students; students who experienced high teacher sensitivity also experienced closer relationships with their teachers.

There are a number of possible reasons why having a positive relationship with a teacher serves a protective function. Firstly, students may perceive the school environment as less threatening than other environments. Thus, teachers act as a sort of gatekeeper to this milieu. Secondly, a positive student–teacher relationship may provide a student with an important resource to aid in adjustment at times of increased stress. Thirdly, having at least one positive relationship with an adult figure may safeguard students' beliefs about themselves and increase student resilience. Thus, the harmful effects of negative relationships with other adults may be less prominent. This protection is critical, as we show below.

## 7.2. Student–teacher relationships are predictive

Consistent with the notion that student–teacher relationships are protective, the quality of relationship between student and teacher has also been found to predict social, behavioural and academic outcomes throughout the school years (e.g. Birch & Ladd, 1997; Furrer & Skinner, 2003). The predictive function of the student–teacher relationship is well documented in the literature cited in Section 6, demonstrating, for example, that student–teacher relationship quality predicts academic achievement and peer acceptance (e.g. Howes, Matheson, et al., 1994; Hughes et al., 1999).

Recent evidence suggests that student–teacher relationships may be even more important in predicting outcomes for behaviourally at-risk students than those without behavioural difficulties (Decker et al., 2007). On one hand, difficult student behaviour provokes negative, conflictual teacher interactions (Lewis et al., 2005). On the other hand, greater conflict with teachers has been found to predict more risky behaviour (Rudasill et al., 2010), thus further emphasising the need for students with behavioural problems to have positive relationships with teachers. Consistent with this view, Hamre and Pianta (2001) found that children's relationships with their kindergarten teachers predicted their academic achievement and behavioural outcomes through to eighth grade. Findings were strongest for boys and students with behavioural difficulties; each of whom is at heightened risk of a negative student–teacher relationship.

Although influences on social, behavioural and academic outcomes are not often compared, Hamre and Pianta (2001) also found that the quality of student–teacher relationships was a stronger predictor of behavioural outcomes than academic outcomes. One possible explanation for this is that positive interactions with a teacher promotes feelings of closeness resulting in favourable behaviours that are independent of, or detached from academic ability and/or academic motivation. In addition, behaving in favourable ways may be seen to demonstrate feelings of closeness more so than performing well academically. Another explanation is that relationship quality and behaviour were both teacher-reported and related to social adjustment, whereas academic performance was objectively measured and less likely to be influenced by teacher perceptions (Hamre & Pianta, 2001). Nonetheless, there is also a strong relationship between behaviour and academic performance (Georges, Brooks-Gunn, & Malone, 2012).

While we have thus far discussed student outcomes within the school years, there are some indications that student–teacher relationships may impact life trajectories well beyond formal schooling. While this notion requires greater research attention, findings to date are persuasive. For example, Kokko and Pulkkinen (2000) revealed that student aggression predicted school maladjustment at age 14, which was in turn both directly and indirectly related to long-term unemployment at age 36. Given that student–teacher relationships have been shown to predict subsequent student aggression (Hughes et al., 1999; Meehan et al., 2003), we suggest that long-term unemployment in adulthood may in some cases also be prevented or lessened through high-quality student–teacher relationships during the school years. Entry into tertiary education may be impacted in a similar way.

Findings from Pedersen et al.'s (1978) now classic case study support this idea: students taught by one particular year-one teacher had higher achievement throughout primary school, higher socioeconomic status as adults in their 30s, and more detailed and positive memories of that teacher than did students taught by other teachers. Pedersen et al. (1978) suggested that the more effective teacher had a superior ability to promote positive self-image in her students.

Although life outcomes such as unemployment typically have multiple causes, a negative student–teacher relationship may have a lasting effect on students' self-perceived abilities, which carry into adulthood, adversely affecting future employment.

## 7.3. Summary

For students at risk of negative student–teacher relationships, experiencing a positive relationship with a teacher can protect against numerous other negative influences including maladaptive behaviour, negative life events, poor quality child–parent relationships, and referral to special education settings. It can also predict a range of behavioural and academic outcomes: not just within the school years, but perhaps also in adulthood. For example, those with negative student–teacher relationships may be more likely to be unemployed in adulthood, whereas those with positive relationships may experience a higher



degree of success. The predictive and protective functions of the student–teacher relationship suggests that one positive relationship may be sufficient to alter the trajectory of a student at risk of negative outcomes.

## 8. Conclusion

For students at risk of experiencing a negative student–teacher relationship, by virtue of behavioural difficulties, negative attachment history, demographic status, or other, having a positive relationship with a teacher is a powerful buffer. By providing and scaffolding productive and developmentally appropriate social opportunities, by using knowledge of classroom dynamics, and by promoting student responsibility for maintaining peer relationships (Farmer et al., 2011), teachers can enhance students' social, emotional and academic outcomes from an early age.

Considering the student characteristics that influence relationship quality, matching students who are at-risk to teachers with compatible characteristics and temperament may promote more positive student–teacher relationships (Hughes et al., 1999). Before such measures can be implemented, however, we identify five areas that require further research. First, we note the heavy reliance on teacher-reports; particularly in the early years. Further research employing student reports of relationship quality is needed. Second, greater attention must be paid to changes in relationship quality in the middle school years. Third, further research examining both the influence of student–teacher interventions of high school students behaviour and the association between student–teacher relationship quality and school dropout is needed. Fourth, in considering the decrease in student–teacher relationship quality from primary to high school, the influences of student age and maturity, teacher type, and school setting (e.g. time with each teacher) must be disentangled. Finally, longitudinal research is needed to examine whether or not student–teacher relationship quality impacts outcomes after graduation from high school.

The research reviewed shows particularly strong effects of student behaviour on student–teacher relationship quality. It is therefore critically important that all teachers consider the reasons for students' disruptive behaviours, particularly in light of attachment behaviours and of students' attachment histories, and the implications of their reactions to those behaviours. Teachers who strive to build (and rebuild) rapport with their students will offer their students the best chance of success in and beyond the school environment.

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## **2.1 Summary**

The aim of this thesis is to consider relationships for students with disruptive behaviour. In Article I above, I identify how disruptive behaviour associated with temperament, attachment behaviour and externalizing disorders each place students at risk of a negative relationship. Disruptive students' own perceptions are rarely considered, however. Moreover, while some disruptive students may experience close relationships with their teachers (e.g. Murray & Murray, 2004), which has a powerful protective effect, we do not know why. Specific teacher characteristics may protect students and teachers alike. To explore this possibility further, in the following section I review teacher characteristics that may facilitate positive student-teacher relationships, or place them at risk of negative relationships.

## **2.2 Significant Teacher Characteristics That Influence Student-Teacher Relationship Quality**

In addition to the student characteristics and outcomes reviewed in Article I above, specific teacher characteristics may also predict student-teacher relationship quality. In other words, some *teachers* may be at greater risk of negative relationships with students than other teachers. While it is beyond the scope of this thesis to provide an exhaustive review of such teacher characteristics, below I briefly review literature examining how teacher type, career duration, gender, and ethnicity may influence the student-teacher relationship. Less is known about the influence of teacher characteristics on student-teacher relationship quality, or on teachers' wellbeing and other outcomes. These relationships are nonetheless important for teachers' job satisfaction (Veldman, Tartwijk, Brekelmans, & Wubbles, 2013); with known associations between teachers' experience of negative emotions and teacher burnout (Chang, 2013). It is therefore possible that frequently experiencing negative relationships with students increases the risk of emotional exhaustion, prompting

teachers to leave the profession. Below I review each teacher characteristic in turn; highlighting outcomes where known.

**2.2.1 Teacher Type.** As noted in Article I, a decline in relationship quality is observed before and after the transition to secondary education (Feldlaufer, Midgley, & Eccles, 1988; Midgley, Feldlaufer, & Eccles, 1989), placing secondary school teachers at risk of negative student-teacher relationships (Roorda et al., 2011). Elementary teachers, in comparison, are more secure in their relationships with students than secondary teachers (Riley, 2009). This distinction may reflect school structure, with secondary teachers typically interacting less frequently with particular students than elementary teachers (see Article I, Section 4). Indeed, secondary teaching is typically characterised by greater professional, physical and emotional distance from students than is elementary teaching (Hargreaves, 2000). The quality of elementary teachers' relationships with students is nonetheless particularly important for predicting outcomes in secondary education. Relational negativity in Kindergarten, for example, has been found to predict academic and behaviour outcomes in eighth grade (Hamre & Pianta, 2001).

Although disruptive students are at greater risk of negative relationships throughout the elementary years than well behaved students, elementary support teachers (e.g. teacher librarians, sport teachers) may offer an additional opportunity for a close relationship. While support teachers typically have more limited interactions with students, as do teachers in secondary school, I note in Article I that "one positive relationship may be sufficient to alter the trajectory of a student at risk of negative outcomes". Thus, support teachers who are able to form positive bonds with their students, and with disruptive students in particular, may offer a strong protective effect. Alternatively, the more limited time that support teachers spend with elementary students may place them at greater risk of more negative student-teacher relationships.

To date, no research has considered elementary support teachers' relationships with students, however.

**2.2.2 Career Duration and Teacher Education.** In addition to teacher type, teachers who have spent more years working in the classroom and those with less formal education may each be at risk of negative relationships with students. Consistent with Bronfenbrenner's ecological systems theory, relationship quality is not only influenced by personal characteristics but is also contingent on contextual factors. Above, in Article I, I identify that, according to Bronfenbrenner (1979), relationship quality is informed by five contextual systems. A later addition to this theory was the chronosystem (Bronfenbrenner, 1986). The chronosystem includes a person's development and the changes to contextual systems that occur over time; hence, relationship quality within particular contexts may not be stable.

Bronfenbrenner's chronosystem is particularly relevant when considering changes in student-teacher relationship quality across a teacher's career. Although we might expect teachers with more years of teaching experience to be less perturbed by disruptive behaviour, and therefore likely to rate their relationships with students more positively, research shows that these teachers come to develop more *negative* relationships over time (Brekalmans, Wubbels, & Tartwijk, 2005; O'Connor & McCartney, 2006; Stuhlman & Pianta, 2001). For example, Brekalmans et al. (2005) showed that although students' and teachers' perceptions of teacher influence increased during the first six years of the teaching career, more experienced teachers' relationships with students were characterised by less proximity than teachers with less experience. Brekalmans et al. (2005) suggest this decline may in part be an indication of an "older teacher" problem: more experienced teachers are likely to be older, and may therefore have trouble relating to students who are much younger than themselves. However, this may not exclusively be the case, and further research is needed to identify

other contributing factors (e.g. job satisfaction and school culture). Additionally, more experienced teachers may be advantaged in some ways: being more likely to perceive students as more mature (suggesting greater confidence in students' abilities) (Mullola et al., 2012); more likely to consider factors external to the school as potential causes for disruptive behaviour (Mavropoulou & Padeliadu, 2002); and more likely to seek assistance from external specialists when faced with problematic behaviour (Hughes, Barker, Kemenoff, & Hart, 1993). Hence, although a gradual decline is observed, having a long career duration may be advantageous when forming relationships with disruptive students.

Over and above the influence of career duration, teachers' formal education may also influence relationship quality. For example, there are some indications that teachers with more years of general education may more frequently experience positive interactions with students (Hearns, 1998), and that teachers who have a masters degree are less likely to view student-teacher relationships negatively (Stuhlman & Pianta, 2001). Although limited, these findings suggest that teachers who engage with further education and training throughout their career may be protected from experiencing a decline in relationship quality. Such training may provide teachers with additional classroom management skills or greater insight into student difficulties (e.g. Roorda, Koomen, Thijs, & Oort, 2013); alternatively, teachers who undergo further education may be more enthusiastic to begin with. Given the potential importance of these variables, teachers' career duration and highest level of qualification were included as variables in the present study.

Taking together findings relating to career duration and teacher education, it appears that education may be more important than classroom experience alone for supporting positive student-teacher relationships. Research evidence to support this

assertion is limited, however, and greater attention needs to be given to the role of further education for sustaining positive student-teacher relationships.

**2.2.3 Teacher Gender and Ethnicity.** In addition to the effects of student gender and ethnicity identified in Article I, there is also some indication that teachers' own gender and ethnicity impacts student-teacher relationship quality.

**2.2.3.1 Teacher gender.** Most research focusing on the effects of teacher gender has examined student engagement and achievement, finding no significant effects (Carrington, Francis, Hutchings, Skelton, Read, & Hall, 2007; Carrington, Tymms, & Marrell, 2008; Drudy, 2008; Martin & Marsh, 2005). Findings from meta-analyses investigating the effects of gender on student-teacher relationship quality, however, are equivocal (Cornelius-White, 2007; Roorda et al., 2011). Although Cornelius-White (2007) showed that female teachers had a greater impact on student learning, Roorda et al. (2011) found male teachers to have stronger effects on student engagement. This was especially true for high school students.

There is very little research examining the influence of teacher gender on student-teacher relationships specifically, with a shortage of male participants. This is particularly true in elementary school samples, where female teachers typically represent 80% of the workforce (Drudy, 2008; Smith 2004). For this reason, some studies investigating student-teacher relationships with elementary teachers have consisted entirely of female participants (e.g. Buyse, Verschueren, & Doumen, 2011), whereas others either have not included teacher gender in their analyses (e.g. Saft & Pianta, 2001), or have excluded data from male teachers altogether (eg. Kesner, 2000). To date only one study has examined the effect of teacher gender on student-teacher relationships with elementary students. Spilt, Koomen and Jak (2012) used an adapted version of the Student-Teacher Relationship Scale to examine the relationships of 182 male teachers and 467 female teachers with 1,493 students. Female teachers rated

themselves as having better relationship quality than did male teachers. In particular, male teachers' relationships were rated higher in conflict, particularly with boys<sup>2</sup>, whereas female teachers' relationships were rated higher in closeness, particularly with girls. Students themselves, however, may hold different perceptions about the importance of teacher gender. While some research suggests that sixth grade students may find it easier to relate to a teacher of the same gender as themselves (McGrath & Sinclair, 2013), it is not clear if particularly young students (i.e. in their first years of schooling) share this perception.

**2.2.3.2 Teacher ethnicity.** Little is known about how teachers of different ethnicities experience their relationships with students (Kesner, 2000). Nevertheless, as highlighted in Article I, there are some indications that early student-teacher relationships are more positive when teacher and student are ethnically matched (Crosnoe, Johnson, & Elder Jr, 2004; Saft & Pianta, 2001; Thijs, Westhof, & Koomen, 2012). In contrast to the (limited) findings for gender, research suggests that matching student and teacher by ethnicity, may be more important for teachers' relationship perceptions than their students (Murray, Murray, & Waas, 2008). For example, in an American study of 197 preschool and Kindergarten teachers and 840 students, Saft and Pianta (2001) found that teachers rated their relationships with students more positively when both student and teacher were of the same ethnicity. A more recent investigation conducted by Choi and Dobbs-Oates (2016) of 34 teachers and 159 preschool students in America, however, found no effect of ethnic-matching on teacher ratings of closeness and conflict. These equivocal findings suggest that further research investigating ethnically-matched and mismatched student-teacher relationships is needed.

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<sup>2</sup> Male teachers, however, were underrepresented in the early elementary grades (8% in first grade and 14% in second grade).

While the sampling methods used in the present study did permit consideration of student or teacher ethnicity, I note that studies of ethnicity may also differ both across and within countries. For example, ethnicity is rarely considered in Australia unless investigating the school-related outcomes of Indigenous Australians (e.g. Pedersen & Walker, 2000). Nonetheless, some research suggests that Australian teachers are more punitive and aggressive than mainland Chinese teachers (Lewis, Romi, Qui, & Katz, 2005). Although beyond the scope of the current thesis, in light of these findings and considering that the most common non-English speaking language background of Australian students is Chinese (Department of Education and Training, 2010), future research comparing ethnically matched and mismatched student-teacher relationships in an Australian context is needed.

**2.2.4 Other Teacher Characteristics.** In addition to teacher type, career duration, gender, and ethnicity, various other teacher characteristics that might influence the student-teacher relationship have briefly been considered in the literature. Teachers with greater self-efficacy (Hamre, Pianta, Downer, & Mashburn, 2008; O'Connor, 2010), empathy (Cornelius-White, 2007), and sensitivity (Buyse et al., 2011) rate their relationships with students more positively, for example, as do those with secure attachment histories (Kesner, 2000) and more effective instructional practices (Mantzicopoulos, 2005). These individual differences are each likely to contribute to a positive classroom climate, thereby promoting more positive interactions with students and in turn reinforcing the teacher's self-efficacy. At a broader level, other contextual factors may place teachers at risk of negative relationships with students (see O'Connor, 2010, for teacher salary, principal involvement and child-teacher ratio). In Article I above, for example, I show that student-teacher relationship quality decreases across the school years.



**2.2.5 Summary.** This section considered the influence of several teacher characteristics on student-teacher relationship quality. First, while secondary teachers interact less frequently with the same students and are at greater risk of experiencing negative student-teacher relationships than elementary teachers, the role of elementary support teachers has not yet been considered. Second, while more experienced teachers appear to experience a decline in relationship quality, they may in other ways be more equipped to manage disruptive student behaviour. Third, similar to students, male teachers appear to be at greater risk of experiencing negative student-teacher relationships than are female teachers. Fourth, although minority students may be more likely to experience negative student-teacher relationships, it is not clear if being matched with a teacher of the same ethnicity provides a buffer to this effect or if minority teachers themselves are at similar risk. Lastly, teachers' personal characteristics, such as self-efficacy and empathy, seem important. Although these individual characteristics have not frequently been considered, preliminary research suggests that teacher empathy and sensitivity are important for the student-teacher relationship.

Although rarely considered in light of student behaviour, the teacher characteristics predicting positive student-teacher relationships may be particularly important in the case of students with disruptive behaviour. In the present study I therefore draw attention to the role of elementary support teachers. I note that although support teachers form relationships with students under similar time constraints as secondary teachers, they nonetheless provide an additional opportunity for disruptive students to experience a close relationship. Additionally, I measure teacher education and career duration as possible covariates, and consider the individual differences that promote close relationships with disruptive students.

## 2.3 The Present Study

The empirical evidence reviewed above demonstrates that student-teacher relationships experienced in the first years of schooling are critically important. However, even in the first three years of schooling, teachers typically rate their relationships with disruptive students more negatively than they do their relationships with well behaved students (Birch & Ladd, 1998; Henricsson & Rydell, 2004). Possible interactions with gender also emerge. As early as Kindergarten, teachers rate their relationships with boys more negatively than their relationships with girls (Buyse et al., 2011; Jerome, Hamre, & Pianta, 2009). This may be because boys are more disruptive than girls; alternatively, even well behaved boys may be at risk.

As identified in Article I, little is known about how disruptive young students themselves experience the student-teacher relationship. Studies that *have* considered the perceptions of students show that, despite having fewer experiences with teachers and limited vocabulary, even very young students are able to provide useful information about the quality of their relationships with teachers (Mantzicopoulos & Neuharth-Pritcgett, 2003; Murray, Murray, & Waas, 2008; Spilt, Koomen, & Mantzicopoulos, 2010). Comparisons between disruptive and well behaved students have not yet been considered, however. Thus it is unclear whether disruptive young students, whose own behaviour regularly interferes with teaching and learning, perceive poorer quality student-teacher relationships than their well behaved peers. Understanding how disruptive and well behaved students perceive the quality of their relationships in the early elementary years is particularly important, as these relationships are likely to influence both their attitudes towards school (Birch & Ladd, 1997) and their behavioural and academic trajectories (Hamre & Pianta, 2001).

In this thesis I investigate how disruptive young students and their teachers each perceive their relationships with one another. I use a drawing task to investigate the

students' perspective, showing how disruptive and well behaved students represent the emotional quality of their relationships with different teachers in the first three years of elementary schooling (Article II). Although children's drawings have long been used to investigate child-family relationships, the use of this method to investigate student-teacher relationships is limited (Harrison, Clarke, & Ungerer, 2007; Pianta, Longmaid, & Ferguson, 1999). The use of drawings is particularly beneficial for capturing young children's internalised perceptions and emotions in ways not possible with rating scales. I also use a speech sample task to investigate the teachers' perspective, showing how teachers express the emotional and relational tone of these relationships (Article III). While research often reports teachers' ratings of relationships quality (typically using Pianta's, 2001, Student-Teacher Relationship Scale), research investigating teachers' verbal expressions are also limited (see Daley, Renyard, & Sonuga-Barke, 2005; Spilt & Koomen, 2009; Stuhlman & Pianta, 2001 for exceptions). I then extend the use of this speech sample task to consider characteristics evident in teachers' speech that may facilitate relational closeness in spite of student-teacher conflict (Article IV).

My research makes two specific contributions to the literature. First, the study contributes to our understanding of characteristics of 'risk' that may work together to support positive or negative relationships for disruptive students. While the central focus of the project was on the perceptions of disruptive students and their teachers, interactions of student behaviour with gender and teacher type are also examined over two phases and relevant covariates are included. Second, the study expands on the emotional qualities of the student-teacher relationship. Because relationships are inherently emotional (Garner, 2010), a focus on the emotional components of the relationship is needed to better understand how interactions between disruptive students and their teachers influence individual wellbeing and the classroom climate. I elaborate on each of these two contributions below.

### 2.3.1 Contributions to our understanding of student and teacher

**characteristics of ‘risk’.** Based on the review of literature, the present study examines both student behaviour and gender as potential student risk factors for negative relationship quality. Importantly, I extend research using teacher reports to examine whether or not students themselves represent relationship quality differently based on their behaviour and gender. While I consider each risk factor individually, given findings that boys are more disruptive than girls, I also look for interactions between student behaviour and gender that might drive perceptions of relationship quality.

In addition to my focus on student behaviour and gender, I include elementary teacher type as a potential characteristic of risk; comparing relationships of classroom and support teachers (e.g. teacher librarians, relief teachers, and sport teachers)<sup>3</sup>. Support teachers typically work with the whole school community, spending a small number of hours a week with each class. Because the time elementary support teachers can spend with each specific student is often limited, these teachers may be at greater risk of negative student-teacher relationships than are classroom teachers. For students with disruptive behaviour, however, these teachers may provide an additional opportunity for a close relationship to emerge.

Lastly, I consider time of year as a possible contextual characteristic of risk<sup>4</sup>. I examine student-teacher relationships at two points in time: at the end of a school year, and at the beginning of the following school year. Considering that relationships at the beginning of the school year have had less time to form, the risk of relational negativity may be heightened; particularly for disruptive students who are more likely to dominate these early classroom interactions (Newberry, 2010). Indeed, some researchers have purposefully collected data at the end of a school year to reflect well informed

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<sup>3</sup> Career duration and highest level of qualification were also entered as covariates.

<sup>4</sup> Student grade was also entered as a covariate.

perceptions (e.g. Hamre & Pianta, 2001; Lynch & Cicchetti, 1997). Additionally, while Doumen, Koomen, Buyse, Wouters, and Verschueren (2012) report consistency in relationship quality throughout a school year, no study has yet compared relationship quality with disruptive and well behaved students before and after the transition to a new school year.

Considering these additional characteristics of risk and examining relationships with two teachers and at two points in time, the present study captures data about four student-teacher relationships for each student. Therefore, in addition to examining the influence of student behaviour, the present study reflects students experiences of their relationships with different teachers as they move from one grade to the next.

**2.3.2 Contributions to our understanding of relationship emotionality.** This thesis further contributes to the understanding of student-teacher relationship quality by focusing specifically on the emotional quality of these relationships; an aspect rarely considered (Fried, Mansfield, & Dobozy, 2015; Spilt, Koomen, & Thijs, 2011; Uitto, Jokikokko, & Estola, 2015).

Although relational conflict may be associated with negative emotions (such as anger) and relational closeness associated with positive emotions (such as happiness), suggestions that these dimensions are directly representative of emotional quality are problematic. For example, conflict and closeness subscale items on the Student-Teacher Relationship Scale (Pianta, 2001) typically refer to how the student might feel (e.g. “This child easily becomes angry with me”, “When I praise this child he/she beams with pride”), but not to the teachers’ own emotions (the only exception being “my interactions with this child make me feel effective and confident”). Such measures do not capture how the teacher represents their own emotional experiences within the relationship, and nor do they capture students' perceptions. Hence, additional measures

are needed to investigate how students and teachers each perceive the emotional quality of these relationships.

While investigations focusing on the emotional quality of the student-teacher relationship are limited, these studies have considered both observers' and students' ratings of emotional tone. Observer ratings of emotional tone have included an overall rating from 1 (very negative) to 5 (very positive) (see Ladd, Birch, & Buhs, 1999) or a recorded number of intervals when the teacher expressed positivity (e.g. praise, pat on the back) or negativity (e.g. angry tone of voice) towards an individual or group of students (see Stuhlman & Pianta, 2001). In comparison, students' perceived emotional tone has been measured using the Relatedness Questionnaire (e.g. Decker, Dona & Christenson, 2007). Using this method, overall emotional quality is calculated based on students' ratings of, for example, how happy, relaxed, ignored, or scared they feel when they are with their teacher (Lynch & Cicchetti, 1997). As I discuss later, however, the use of such rating scales with young students may be problematic.

The present study addresses the limited research investigating how teachers and young students themselves experience the emotional quality of their relationships, through the use of a student drawing task and a teacher speech sample task<sup>5</sup>. These tasks were used to tap students' and teachers' internal psychological states in developmentally appropriate ways.

The aim of the drawing task was to investigate how students represent the emotional qualities of their relationships with different teachers. Children's drawings

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<sup>5</sup> Importantly, because these two tasks address slightly different emotional concepts, I do not seek to compare student and teacher perceptions directly. Indeed, given differences in young children and adults' emotional understanding and emotional expressions (Denham, Bassett, & Zinsser, 2012), it may not be possible to employ tasks which capture the same emotional information from both students and teachers.

provide symbolic representations of the physical world and their emotional experiences (Cherney, Seiwert, Dickey, & Flichtbeil, 2006). Although children's drawings have been used to examine young children's attachment to their parents (Dallaire, Ciccone, & Wilson, 2012; Fury, Carlson, & Sroufe, 1997), this approach is rarely considered to investigate the student-teacher relationship (see Harrison, Clarke, & Ungerer, 2007; Pianta, Longmaid, & Ferguson, 1999). Applying eight dimensions used to investigate child-family relationship quality (Fury, 1996) to students' drawings of their relationships with teachers, I investigate how students represent the emotional qualities (e.g. pride, vulnerability and tension) of these relationships. I also extend present understandings using this method to consider the effects and interaction effects of student gender and disruptive behaviour (using teachers' nominations of students as being either disruptive or well behaved) for each of Fury's eight dimensions whilst also comparing students' drawings of their relationships with different teachers and at different points in time.

The aim of the speech sample task was to investigate whether or not teachers' expressed emotional tone differed when speaking about disruptive and well behaved students. While the content of parents' uninterrupted speech samples when speaking about their children has been examined to determine the emotional quality of those relationships (Khafi, Yates, & Sher-Censor, 2015; Owen-Anderson, Bradley, & Zucker, 2010), sometimes focusing specifically on negative mother-child attachment (e.g. Jacobsen, Hibbs, & Ziegenhain, 2000), the use of this method in educational research is limited (see Daley, Renyard & Sonuga-Barke, 2005 for exception). Applying traditional coding for expressed emotion and further developing coding for expressed student-teacher relationship quality, I extend present understandings using this method to consider elementary teachers' expressed emotional and relational tone.

## **2.4 Research questions**

To address the need for further research investigating disruptive young students' perceptions of relationship quality, and to better understand how students and teachers each experience the emotional quality of the student-teacher relationship, the study aimed to address the following two research questions:

1. How do disruptive and well behaved students represent the emotional quality of their relationships with teachers? (Article II)
2. How do teachers express the emotional and relational quality of their relationships with disruptive and well behaved students? (Article III)

Across both questions, student behaviour and gender were included as student variables. Additionally, teacher type, education, years teaching experience, and relationship duration were included as teacher variables. Across both questions, assessments were completed at two time-points: at the end of one school year and at the beginning of the next year. Based on the analysis of teachers' speech samples, a third research question also emerged:

3. What characteristics of teachers' speech facilitate expressed relational closeness with disruptive students? (Article IV)

In the following chapter I describe the overarching methodology used to address each of these research questions. I then present my findings in the form of three publications; Articles II, III, and IV (chapters 4, 5, and 6). Specific hypotheses relating to each of these three research questions are presented in each of these publications.



## Chapter 3: Methods

In this chapter I present an integrated method section. I identify the study participants, context, and methods used, and describe the overall study design of this thesis. Please note that separate method sections are also included in each paper: in Article II, I present the method relevant to student drawings; in Article III, I present the method relevant to teachers' speech samples; and in Article IV, I describe the method used to perform a qualitative investigation of those speech samples. While some repetition is therefore inevitable, the intention is to show how the individual methods sections presented in each article fit within the overarching thesis.

### 3.1 Participants

Participants included 51 elementary students (29 males and 22 females), 29 classroom teachers (3 males and 26 females) and 18 support teachers (1 male and 17 females). Data was collected at two points in time: at the end of a school year (Phase 1), when students were enrolled in 6 Kindergarten and 8 first grade classes ( $M = 79.00$  months old,  $SD = 7.76$ ), and at the beginning of the following year (Phase 2), when students were enrolled in 9 first grade and 9 second grade classes ( $M = 82.63$  months old,  $SD = 7.88$ ). Student participants were based on teachers' nominations of classroom behaviour (see 3.1.1 below). The original sample of students included 27 students nominated as disruptive and 28 students nominated as well behaved. However, 2 disruptive students changed schools after Phase 1 and a further 2 disruptive students were absent during the Phase 2 data collection. Therefore, the total student sample included in this study is 23 disruptive students and 28 well behaved students.

Across both phases, classroom teachers included 6 Kindergarten teachers, 15

first grade teachers, and 9 second grade teachers<sup>6</sup>. Classroom teachers had between 1-30 years teaching experience ( $M = 10.31$ ,  $SD = 9.09$ ), and the majority (59%) held an undergraduate degree as their highest level of qualification. A further 31% held a postgraduate degree as their highest level of qualification, and 10% held a graduate diploma.

Support teachers included 4 teacher librarians, 2 art teachers, 1 sport teacher, 3 language teachers, 2 computer teachers, 1 teacher's aid, and 5 relief teachers (also known as RFF or release-from-face-to-face teachers). Each support teacher typically taught the same students for approximately 1 hour each week while the regular classroom teacher engaged in planning and administrative duties. Support teachers held between 1-35 years teaching experience ( $M = 13.83$ ,  $SD = 9.53$ ). The majority (72%) held a postgraduate degree as their highest level of qualification while 28% had an undergraduate degree. The roles of classroom and support teachers are compared briefly in Article III (Article III, section 2.1).

**3.1.1 Selection.** In Phase 1 of the study, 6 Kindergarten and 8 first grade teachers were invited to participate (all teachers consented to participate). These 14 teachers were asked to nominate (i) two students in their class who frequently behaved disruptively, (ii) two students in their class who were well behaved, and (iii) one support teacher who regularly taught the nominated students. Disruptive student behaviour was defined as any behaviour that frequently interfered with their teaching or other students learning<sup>7</sup>. Importantly, while this definition is consistent with

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<sup>6</sup> Two first grade teachers participated in both phases of the study. One teacher participated in Phase 1 as a Kindergarten teacher and then also participated in Phase 2 as a second grade teacher.

<sup>7</sup> While some teachers may consider boys to be more disruptive than girls, no instructions regarding student gender were given.

previous research investigating elementary teachers' perceptions of disruptive classroom behaviour (Merrett & Wheldall, 1984), it differs to other work using, for example, the Child Behavior Checklist (e.g. Murray & Greenberg, 2000; Murray & Malmgren, 2005; Pianta & Stuhlman, 2004) or Classroom Behavior Inventory (e.g. Howes, 2000; Howes, Phillipsen, & Peisner-Feinberg, 2000) to select student participants. Following a meeting with the Macquarie University Human Research Ethics Committee in 2012, the current nomination procedure was selected as the most appropriate approach to ensure that students who had diagnosed behavioural problems (or other restrictions such as language ability, neurodevelopmental disorders or disabilities) were not nominated as participants, and that the time required of teachers to participate in the study was minimal. I discuss the implications of this selection method relative to others in my general discussion (*Chapter 7*).

In Phase 2 of the study, the enrolment of participating students was tracked to 9 first grade and 9 second grade classes. The teachers of those classes were then invited to participate and to also nominate one support teacher who regularly taught the nominated students.

**3.1.2 Participating schools.** To include participants living in areas of differing socioeconomic advantage in Sydney, I invited one school each from three socioeconomically different school districts in the Greater Sydney metropolitan area. All three schools were local government schools, and participation was approved by the New South Wales Department of Education. The three schools included one school from the Outer West district (including 4 participating classes in Phase 1 and 5 in Phase 2), one school from the North Sydney district (including 6 participating classes in Phase 1 and 9 in Phase 2), and one school from the Northern Beaches district (including 4 participating classes in Phase 1 and 4 in Phase 2). These three districts were chosen to

represent areas with low, moderate, and high socioeconomic advantage. According to data from the Australian Bureau of Statistics (2014), at the time data was collected:

- the average wage of people living in the Outer West was 13.2% less than the Greater Sydney region average;
- the average wage of those living in the Northern Beaches was 3.1% more than the Greater Sydney region average; and
- the average wage of those living in North Sydney was 28.5% more than the Greater Sydney region average.

Table 1 reports the number of students enrolled at each school, the proportion of students from non-English speaking backgrounds (NESB) in each school (ACARA, 2013), and the “Index of Community Socio-educational Advantage” (ICSEA) values for each school. ICSEA values are standardised with a mean of 1000, such that lower scores indicate disadvantage and higher scores represent advantage (ACARA, 2014). Note that the ethics approval for this study did not permit the collection of data on individual participant ethnicity and family income data: thus, I use community data to illustrate the broader socioeconomic contexts in which the data was collected. While the proportion of students from non-English speaking backgrounds appears high, Sydney is a very diverse and multicultural city in New South Wales. Around 40% of people living in Sydney were born overseas (Australian Bureau of Statistics, 2014) and the most common non-English speaking language background of students in New South Wales government schools is Chinese (Department of Education and Training, 2010). Students from non-English speaking backgrounds are typically bilingual, however, and may demonstrate excellent language skills. To ensure adequate language comprehension, teachers nominated students who spoke English fluently.

Table 1. Summary of Participating Schools

	Area	Participating classes*	Enrolments	NESB students	ICSEA Value
School 1	Outer West	4	559	26%	976
School 2	Northern Beaches	4	349	36%	1016
School 3	North Sydney	6	914	73%	1191

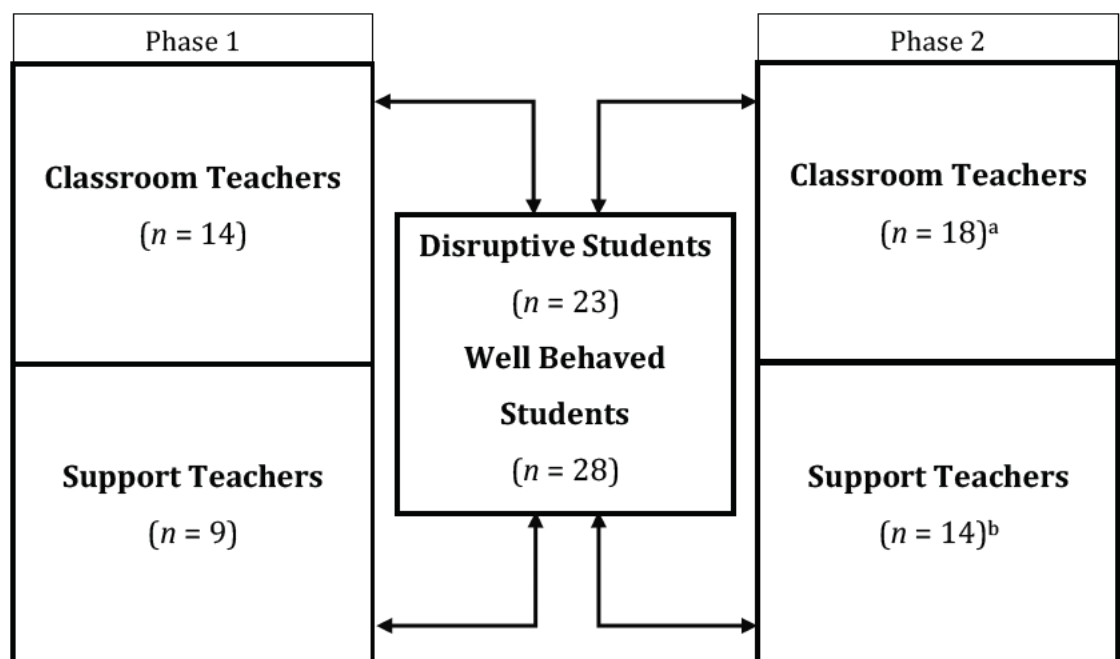
*Note.* \*Shows the number of classes from which participants were recruited at the beginning of the study. NESB = non-English speaking background; ICSEA = Index of Community Socio-Educational Advantage.

As shown in Table 1, participating school populations in the Outer West were disadvantaged, relative to in other areas of Sydney. According to the Australian Bureau of Statistics (2014), this region of Sydney is also less densely populated (817 people/km<sup>2</sup>) than either the Northern Beaches (3,236 people/km<sup>2</sup>) or North Sydney (3,523 people/km<sup>2</sup>). Participating school populations on the Northern Beaches were of average socioeconomic advantage, with ICSEA scores just 16 points above  $M = 1000$ , and participating school populations in North Sydney were affluent. Although North Sydney has the highest proportion of students from non-English speaking backgrounds, the majority of people living in this area come from bilingual Asian migrant families with high income (Australian Bureau of Statistics, 2014). This is not necessarily true in the Outer West, where students are predominantly Caucasian Australian. At the time data was collected, the most common types of employment for people living in North Sydney were 'professionals' (39.7%) and 'managers' (16.1%), whereas the most common types of employment for people living in the Outer West were 'clerical and administrative workers' (20.8%) and 'technicians and trades workers' (16.3%) (Australian Bureau of Statistics, 2014).

### 3.2 Design

The aim of the study was to compare the emotional experiences of disruptive and well behaved students and their teachers over a short delay. Phase 1 was conducted at

the end of the 2012 school year (November-December), and included a student drawing task and a teacher speech task. Phase 2 of the study was conducted at the beginning of the 2013 school year (March-April). Each student and their new teachers completed the same drawing task and speech task as in the previous data collection phase. These drawings and speech samples were then analysed with student behaviour (disruptive, well behaved), student gender (male, female), teacher type (classroom, support), and study phase entered as variables of interest (see 3.4 below).



*Figure 1.* Participants and design model. In total, teachers contributed 204 speech samples and students provided 204 drawings for analysis. Whilst all students were forming new relationships with classroom teachers in Phase 2, the relationship durations of support teachers were typically longer (see Article II). Some teachers participated in both phases of the study, these were: <sup>a</sup>) 3 classroom teachers and <sup>b</sup>) 5 support teachers. Two support teachers spoke about the same students in both phases (9 students in total).

### 3.3 Methods

**3.3.1 Student drawing task.** The student drawing task was used to investigate how elementary students represent the emotional quality of their relationships with teachers. Each student provided four drawings across the study: one of themselves with

their classroom teacher and one with their support teacher at the end of the school year (Phase 1), and one drawing of themselves with their classroom teacher and one with a support teacher at the beginning of the following school year (Phase 2). This task was adapted from Fury's (1996) child-family drawing task (in which children are asked to draw themselves with their family), using Harrison et al.'s (2007) adapted coding for student-teacher relationships.

To complete the task, students were invited to complete one drawing of themselves with their classroom teacher and one drawing of themselves with their support teacher. This task was completed with the researcher, during school hours, in a suitable space outside of the students' classroom (usually at a desk in the corridor or an adjoining room). Written consent was obtained from students' parents and verbal consent was obtained from each student immediately before the task with further verbal consent sought for the researcher to keep a copy of the drawings produced for later analysis. To complete each drawing, students were provided with a white A4 piece of paper, 10 coloured pencils, one lead pencil and an eraser. There was no time limit placed on the task. Finally, to prepare the drawings for analysis, each drawing was coded across eight dimensions: vitality/creativity, pride/happiness, vulnerability, emotional distance/isolation, tension/anger, role reversal, bizarreness/dissociation, and global pathology. Further details about this method are described in Article II.

**3.3.2 Teacher's Five Minute Speech Sample task.** The Five Minute Speech Sample task was used to capture teachers' relationship perceptions. Teachers were asked to speak for five minutes about each of the participating students they taught. This task was completed with the researcher, in the teacher's classroom or a meeting room, during school hours (either immediately before or after school, or during a regular break from teaching duties). Written consent was obtained from teachers prior to participation. Following a brief explanation of the tasks requirements, to elicit speech,

the following instructions were given: “Can you tell me about (student’s name)? Again, I’d like you to speak for five minutes telling me what kind of a person (student’s name) is and how the two of you get along together”. Once the teacher began to speak, no further questions or prompts were given. Speech samples were then analysed in two ways. In Article III, speech samples are coded for emotional and relational tone. Emotional tone was coded across six dimensions: initial statement, quality of relationship, positive remarks, dissatisfactions, critical comments, and emotional over-involvement (Daley et al., 2005; Psychogiou, Daley, Thompson, & Sonuga-Barke, 2007). Relational tone was coded across four relational dimensions: closeness, conflict, dependency and overall tone (see Article III for further details). In Article IV, selected speech samples are analysed qualitatively to explore relationships with disruptive students that were rated high in expressed relational closeness and conflict. Further details about this method are described in Article III.

**3.3.3 Teacher online questionnaire.** To obtain additional contextual information about the participating teachers, an online questionnaire was sent to each teacher following their participation in the speech sample task. The questionnaire asked teachers to indicate the number of years teaching experience they had, their highest level of qualification achieved, and when they began teaching each of the student participants. This latter information allowed the duration of each relationship to be calculated. This information was used to provide participant information and to test for interactions on variables measuring student-teacher relationship quality.

### **3.4 Analytical Approach and Presentation of Findings**

In the next chapter I present my analysis of students’ drawings of their relationships with teachers (Article II). I use a MANOVA to examine student behaviour, gender, and behaviour x gender effects across phases and type of teacher. While teacher education and career duration were also initially included as covariates in the analyses,



these were not significant on any variable and were removed from the analysis. In *Chapter 5*, I present my analysis of teachers' speech samples (Article III). I adopt the same statistical approach as for student drawings, using a MANOVA to examine student behaviour, gender, and behaviour x gender effects across phases and type of teacher. In addition, I also conduct correlations between emotional tone and relational tone variables. As in my approach to the drawings paper, teacher education and career duration were also initially included as covariates but were not significant on any variable and were removed from the analysis. Lastly, in *Chapter 6*, I present a qualitative investigation of complicated relationships, in which teachers express both high closeness and high conflict in their speech sample (Article IV). Drawing on speech samples for eight disruptive students, I used an inductive thematic analysis to determine the expressed characteristics of complicated relationships. Table 2 summarises the analyses and data presented in the following three chapters.

Table 2. Summary of Articles

Article	Analysis	Data
II	Quantitative: mixed design MANOVAs	Students' drawings of their relationships with participating classroom and support teachers.
III	Quantitative: mixed design MANOVAs and correlations	Teachers' speech samples when speaking about their relationships with participating students.
IV	Qualitative: thematic analysis	Teachers' speech samples when speaking about their relationships with eight disruptive students

## Chapter 4: Students' Drawings of Themselves with Their Teachers

In this chapter I outline my use of a child drawing task to capture how young students represent the emotional qualities of their relationships with teachers. Children's drawings have captured the attention of educators and psychologists for more than 75 years, with suggestions of generalised developmental stages in children's drawings first emerging in the late 1940s (e.g. Lowenfeld, 1947). Between 5 and 6 years of age, for example, children's drawings typically include recognisable details and grounded figures, and may include multiple narratives (Matthews, 1999). At this same age, children's drawings of schools often resemble houses (Tallandini & Valentini, 1991). Between 7 and 8 years of age, children's drawings continue to become more realistic, sophisticated and complex, with greater schematic representation (Anning & Ring, 2004). While children's drawings of their families and Kindergarten teachers' ratings of those children's social-emotional behaviours have been compared (Pianta, Longmaid, & Ferguson, 1999), to date only one study has investigated students' own drawings of the student-teacher relationship (Harrison, Clarke, & Ungerer, 2007). However, no study has yet compared disruptive and well behaved students' drawings of themselves with different teachers or at different points in time. The following article, accepted for publication in the *Elementary School Journal*, aims to address this gap. Using a student drawing task and applying coding used to examine child-family attachment, the article answers the first research question of this thesis:

1. How do disruptive and well behaved students represent the emotional quality of their relationships with teachers?

In this article I compare drawings from disruptive and well behaved students, boys and girls<sup>8</sup>. I also compare students' drawings of their relationships with classroom and support teachers, and drawings obtained in Phase 1 (at the end of the school year) and Phase 2 (at the beginning of the next school year). Finally, this article extends my review of literature; focusing specifically on research investigating students' perceptions and on the use of children's drawings as a research method<sup>9</sup>.

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<sup>8</sup> Supplementary to this chapter, a short video presentation of my findings can be found here: <http://tinyurl.com/hz5l8l9> This presentation was awarded the First Place award and the Peoples' Choice award at the Macquarie University Three Minute Thesis competition in September 2015. I delivered the same presentation at the TEDx Macquarie University event in September 2015, and represented Macquarie University at the Trans-Tasman Three Minute Thesis Finals held in Queensland in October 2015.

<sup>9</sup> Footnotes are included on a separate page at the end of the manuscript as per the journal format.

**Adding Colour to Conflict: Disruptive Students' Drawings of Themselves  
With Their Teachers**

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Building on work examining teachers' perceptions of the student-teacher relationship, the present study investigated how young students draw themselves with their teachers. Fourteen Kindergarten and first grade teachers each nominated two disruptive and two well behaved students ( $n = 51$ ). Students then completed one drawing of themselves with their classroom teacher and one with a support teacher (e.g., librarian, art teacher) at two time points: the end of the school year (Phase 1); and the beginning of the next year (Phase 2). Coding for eight markers of relationship quality, including vitality/creativity, pride/happiness, vulnerability, emotional distance, tension/anger, role reversal, bizarreness/dissociation, and global pathology, we found no differences in the way that disruptive and well behaved students depicted their own relationships with teachers. Gender and phase effects were identified, however, with boys depicting greater relational negativity than girls and all students portraying greater emotional distance at the beginning of the school year.

**Keywords:** teacher-student relationships, drawings, disruptive behaviour, gender, at-risk students

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### 1. Introduction

Research investigating young students' relationships with their teachers typically makes use of teacher-report measures to assess variables such as conflict, closeness (or warmth), and dependency (e.g. Arbeau, Coplan, & Weeks, 2010; Solheim, Berg-Nielsen, & Wichstrøm, 2012; Spilt, Koomen, & Jak, 2012; Tsai & Cheney, 2012). Using these measures, teachers' rate their relationships with disruptive students more poorly than with well behaved students (Henricsson & Rydell, 2004). Interactions with such students involve more frequent disagreement and reprimands, causing their teachers frustration, and are therefore rated high in conflict and low in closeness (e.g. Silva et al., 2011; Rudasill et al., 2010). This is particularly the case for boys, whose teachers are more likely to view them as disruptive (Beaman, Wheldall, & Kemp, 2007) and also more likely to view their relationship in a negative light (e.g. Troop-Gordon, & Kopp, 2011; Wyrick & Rudasill, 2009).

Missing from this discussion, however, is a strong student voice. While a small number of studies use student self-report measures (e.g. Murray, Murray, & Waas, 2008), few directly compare the perceptions of disruptive and well behaved students (particularly boys). Moreover, it is possible that very young students with disruptive behaviour may not be as perturbed by some self-report variables, such as conflict, as their teachers. We know little of how these disruptive young students represent other aspects of relational positivity and negativity with teachers, such as pride, emotional distance, or vulnerability.

Understanding disruptive students' perceptions of their relationships within the earliest years of schooling is critical. While teachers' relationship ratings predict students' social, behavioural and academic trajectories (e.g. Hamre & Pianta, 2001; Hughes & Chen, 2011; Murray & Zvoch, 2011), it is students' own perceptions that are likely to drive their attitudes towards school, pro-social behaviour, and, in the later years, school dropout (e.g. Lee & Burkam, 2003).

Furthermore, understanding how very young disruptive students experience relationships with different teachers may assist in better targeting early relationship interventions. Although it was not possible to investigate every complexity, the present study sought to examine young students' representations of the student-teacher relationship; comparing relational representations of both disruptive and non-

disruptive students, boys and girls, whilst also considering students' relationships with multiple teachers at different points in time.

Below we review current research investigating young students' perceptions of the student-teacher relationship. We then examine the use of drawing tasks as a research method for exploring how young children portray relationships. While research has also used drawing tasks as a method for investigating students' conceptual knowledge (Lane & Coutts, 2012) and metacognitive knowledge (Pezzica, Pinto, Bigozzi, & Vezzani, 2016), we review the use of such tasks to specifically investigate children's relationship perceptions. We note the potential for drawings to depict various aspects of emotional positivity and negativity within relationships: thus complementing and extending existing findings with self-report measures.

### **1.1 Elementary School Students' Perceptions of Their Relationships With Teachers: Methods and Early Findings**

While studies examining teacher perceptions of the student-teacher relationship in elementary school are more common, recent studies that do consider students' perceptions have most frequently also used self-report rating scales. These include an adapted version of the Inventory of Parent and Peer Attachments administered to students in grades 5-8 (Murray & Zvoch, 2011), the Network of Relationships Inventory administered to students in grades 2-4 (Mercer & DeRosier, 2010; Hughes, 2011; Hughes, Cavell, & Jackson, 1999; Wu, Hughes, & Kwok, 2010), the Relatedness Scale administered to students in grades 2-8 (Lynch & Cicchetti, 1997), and a simplified scale with items designed specifically for children (e.g. "I like my teacher") and administered in third grade (Henricsson & Rydell, 2004).

Because students in Kindergarten and first grade have limited ability to read or follow complex instructions, however, the use of self-report rating scales with this very young age group is more difficult. While a small number of researchers have read items aloud to some students (e.g. Decker, Dona, & Christenson, 2007), others have instead attempted to adapt the self-report methodology; for example, using an image of a large barometer for Kindergarten students to indicate levels of teacher support (Murray, Murray, & Waas, 2008). Though Decker et al. (2007) found that disruptive students who perceived a positive relationship with their teachers also experienced better social, behavioural and engagement outcomes, their sample included students in Kindergarten through sixth grade. To date, only two studies have used adapted self-report

methodology to specifically examine the perceptions of Kindergarten and first grade students with disruptive behaviour. Mantzicopoulos and Neuharth-Pritcgett (2003) asked students to agree or disagree with 31 items representing warmth, conflict, and dependency by placing them in a mailbox or trashcan; finding strong associations between students' negative relationship perceptions and teachers' reports of problem behaviour. Spilt, Koomen, and Mantzicopoulos (2010) asked students to complete a similar computer-based assessment using photographs; finding an interaction between behaviour and gender. Boys who perceived less warmth in their relationship were rated more aggressive by their teachers, whereas girls who perceived less warmth in their relationship were rated higher in social inhibition. No study yet has directly compared the perceptions of disruptive to well behaved students, however.

Findings related to student gender are also unclear. Although several studies show no significant gender differences in students' relationship ratings (Decker et al., 2007; Hughes, 2011; Lynch & Cicchetti, 1997; Mantzicopoulos, 2005), Koepke and Harkins (2008) and Mantzicopoulos and Neuharth-Pritcgett (2003) each report poorer relationship ratings from boys. Koepke and Harkins (2008) note however that the cognitive demands of some questions (adapted from the Student Teacher Relationship Scale; Pianta, 2001) were problematic for young students, with some requiring a sophisticated theory of mind, or multiple concepts to be held in mind at once. Hence, further research using adapted self-report methodology is needed.

## **1.2 Children's Drawings of Relationships**

Within extant research examining child-parent relationships, children's drawings have long proved a useful and appropriate tool to examine young children's attachment to their caregivers (e.g. Madigan, Ladd, & Goldberg, 2003; Pianta, Longmaid, & Ferguson, 1999). Such drawings offer symbolic recreations of not just people and objects, but of experiences, thoughts, emotions and developing knowledge (Cherney, Seiwert, Dickey, & Flichtbeil, 2006; see also Anning & Ring, 2004, for developmental changes in children's drawings).

The use of children's drawings as a tool to investigate attachment relationships was initially proposed by Kaplan and Main (1986), who identified drawing markers they predicted would relate to attachment styles (see Fitton, 2012, for a review of attachment theory). For example, figures that appeared complete and individuated on a page were theorised to be an indication of a secure attachment style. Although

children's drawings have been used to predict parent-child relationship quality since this time, it was not until the work of Fury (1996) that these predictions were tested empirically. Fury (1996) used Kaplan and Main's initial markers to develop global ratings for two positive and six negative relationship dimensions: vitality/creativity and family pride/happiness (positive), and vulnerability, emotional distance/isolation, tension/anger, role reversal, bizarreness/dissociation, and global pathology (negative). Next, using these global ratings, Fury, Carlson and Sroufe (1997) showed that infant attachment history significantly predicts the relational negativity in children's drawings at age 8-9. Critically, these global ratings have since proved more successful in discriminating attachment groups than have Kaplan and Main's original markers (Madigan, Ladd, & Goldberg, 2003).

Since the development of Fury's global ratings, differences in parent-child relationship quality have also been noted in other studies using child drawings. For example, in a sample of children aged 6-10 years old, Dallaire, Ciccone and Wilson (2012) found that girls scored higher than boys in ratings of vitality/creativity and family pride/happiness (i.e. positive dimensions), but lower than boys in ratings of tension/anger and global pathology (i.e. negative dimensions). Additionally, within the 55% of their sample who had an incarcerated parent, children who had greater contact with that parent also scored significantly higher in role reversal: thus suggesting that they feel they are more powerful or responsible than the parent.

Given that young children's drawings can accurately depict the emotional quality of their relationships, we use this same methodology in the current study to depict their student-teacher relationship perceptions. To our knowledge, only one previous study has depicted student-teacher relationships in this way. Harrison, Clarke and Ungerer (2007) asked 123 children aged six years old to draw themselves with their teacher. They then asked the students' teachers to rate those same relationships using the Student-Teacher Relationship Scale (Pianta, 2001). Based on a factor analysis, they created a composite score of relational negativity by combining the five most negative dimensions in those drawings: pride/happiness (reversed), emotional distance/isolation, tension/anger, bizarreness/dissociation, and global pathology. Their findings showed high levels of agreement between students' drawings and teachers' ratings of relationship quality, as well as between children's ratings of teacher acceptance and teachers' ratings of relationship quality; thus supporting the validity of



using children's drawings to represent the student-teacher relationship. As in past research using teacher reports, they also found higher levels of relational negativity with boys than girls. However, they did not consider the relationship perceptions of disruptive students.

### **1.3 The Present Study**

The purpose of the present study was to determine whether disruptive students in the earliest years of schooling would portray greater relational negativity in their relationships with their teachers than would well behaved students. To achieve this we compared the drawings of disruptive and non-disruptive students; teasing apart each of Fury's (1996) eight dimensions of relationship quality<sup>1</sup>. Given the inherent complexity of student-teacher relationships, we considered each dimension important to understand how students perceive their relationships with different teachers. Each dimension, for example, taps different emotional aspects of these relationships. We note the potential for disruptive students to depict lower quality relationships on some dimensions and not others, therefore highlighting areas of particular risk. Given the equivocal findings of gender differences in children's perceptions, we further aimed to determine whether boys would portray greater negativity in their relationships than girls once the effects of student behaviour are controlled. Based on the extant literature, we formed three hypotheses:

1. That disruptive students will depict relationships with their teachers that are higher in relational negativity and lower in relational positivity than those of well behaved students.
2. That boys will depict relationships with their teachers that are higher in relational negativity and lower in relational positivity than those of girls.
3. That the difference between well behaved and disruptive students' representations of relational quality will be larger for girls than boys.

Although not the focus of these hypotheses, it is noteworthy that our study also extended past research in two unique ways. First, we obtained drawings from students at two points in time: at the end of the school year (Phase 1), with a classroom teacher whom students had become familiar with; and at the beginning of the following year (Phase 2), with a new classroom teacher. Although studies reporting students' perceptions rarely state the time of year when data was collected, Lynch and Cicchetti (1997) purposefully collected their data at the end of the school year so that students'

perceptions of their teachers were well formed (also see Newberry, 2010, for phases identified in building and maintaining student-teacher relationships). We extend this work by comparing these well-formed relationships to newly formed relationships at a close time-point (that is, when socio-emotional skills, cognitive skills, and drawing skills would be expected to be similar).

Second, in each phase we asked students to also draw themselves with a support teacher who taught them for at least one lesson a week (e.g., teacher librarian, visual art teacher, or sport teacher). Although student interactions with support teachers are less frequent than with classroom teachers, they nonetheless offer a separate source of emotional support, validation or challenge not previously considered (from either the student or teacher perspective).

**1.3.1 Theoretical orientation.** The present study draws on aspects of both ecological systems theory (Bronfenbrenner, 1979) and attachment theory (Bowlby, 1988). Ecological systems theory describes three characteristics of relationships that are important for development: reciprocity, balance of power, and affective relation (Bronfenbrenner, 1979). Based on these characteristics, schooling is likely to be most effective when student-teacher relationships promote pro-social skills and the notion of interdependence, gradually shift the balance of power to the student to promote autonomy, and foster positive emotional connections. Young students who behave disruptively may perceive or experience these relational characteristics in fundamentally different ways to their peers; for example, by recognising themselves as having more power in the relationship than is appropriate (see Dallaire, Ciccone, & Wilson, 2012; Dumas, LaFreniere, & Serketich, 1995, for examples from child-parent relationships). We note the potential for the role reversal subscale to indicate students' perceived balance of power, and for the remaining subscales to indicate students' affective relation.

Attachment theory describes that young children form internal working models of their relationships with caregivers that are used to inform and predict their subsequent relationships (Bowlby, 1988; Fitton, 2012). Where students perceive a warm, positive relationship with their teacher, they are likely to expect similarly positive relationships with other teachers and to respond accordingly. In contrast, students insecurely attached to their first classroom teacher should predict negative relationships in first grade and beyond (Sabol & Pianta, 2012). Given this, we expect

that disruptive students (especially boys) will portray emotionally negative relationships with all teachers in our study, regardless of teacher type or phase.

## 2. Method

### 2.1 Participants

Participants included 51 students (28 well behaved: 12 boys, 16 girls; and 23 disruptive<sup>2</sup>: 17 boys, 6 girls) from 6 Kindergarten ( $M = 72.17$  months old,  $SD = 4.76$ ) and 8 first grade ( $M = 84.61$  months old,  $SD = 4.56$ ) classes in Sydney, Australia. To ensure the sample was socio-demographically representative, government elementary schools were purposively chosen from three Greater Sydney regions: the Outer West, the Northern Beaches, and North Sydney. Within each class, teachers then nominated two disruptive and two well behaved students to participate (see below).

### 2.2 Design

The study consisted of two phases. Phase 1 took place at the end of the school year, when students were in Kindergarten and first grade. Phase 2 took place at the beginning of the next school year, as students moved to first grade and second grade (delay:  $M = 3.53$  months,  $SD = 0.50$ ). In each phase, students were invited to complete two drawings: one of themselves and their classroom teacher, and one of themselves and a support teacher. Although in Phase 2 all students were forming new relationships with their classroom teachers, 26 students illustrated relationships with support teachers that were continuing from the previous year. The mean durations of these relationships are shown in Table 1.

**2.2.1 Selection.** In Phase 1, 14 classroom teachers were asked to each nominate (i) two students in their class who were well behaved, and (ii) two students who frequently behaved disruptively. These teachers' nominations were essential as they were based on greater relationship intensity than those of support teachers<sup>3</sup>. Disruptive behaviour was defined as any behaviour that regularly interfered with other students' learning or their own teaching. Although teachers in the government school system are trained to identify and manage disruptive behaviour, we note that their nomination of students as disruptive or well behaved was necessarily subjective. Indeed, consistent with the subjective nature of the student-teacher relationship more generally, we were keen to identify students who teachers themselves found troublesome regardless of gender. Similar to existing literature (e.g. Clunies-Ross, Little, & Kienhuis, 2008), in

interviews with these teachers but not the focus of the present paper, these teachers identified disruptive behaviours as being relatively minor but frequently occurring, such as: speaking out of turn, making unnecessary noise and distracting other children, but also included being disobedient, defiant or behaving aggressively towards others.

In both phases, classroom teachers<sup>4</sup> were also asked to identify support teachers who the students were familiar with and who regularly taught the class for at least one lesson each week. While support teachers varied between classes, depending on the needs of the class and the resourcing of the school, they included learning and support teachers, teacher librarians, computer teachers, sports and visual arts teachers, and specialised language teachers. Despite greater relationship intensity with classroom teachers, students' relationships with support teachers are sometimes greater in duration (see Table 1). Whereas classroom teachers typically change each year, support teachers often remain in the same role with the student cohort throughout their elementary schooling. Altogether, students' drawings depicted relationships with 29 different classroom teachers and 18 different support teachers.

Table 1. Relationship Durations in Weeks

Classroom Teachers		Support Teachers	
<i>M (SD)</i>	Range	<i>M (SD)</i>	Range
Phase 1			
43.1 (1.36)	39-45	46.31 (22.34)	20-92
Phase 2			
6.62 (2.48)	1-10	36.23 (33.76)	1-104

*Note.*  $N = 48$ . One student had a shorter relationship duration with teachers in Phase 1 (21 weeks) as this student enrolled at the school in term 2. Two students had longer relationship durations with classroom teachers in Phase 1 (90 weeks) as they had the same first grade classroom teacher as the previous year. For the sake of clarity these students have been omitted from Table 1. To ensure these cases did not impact our findings, the analyses were re run without the data from those students. The pattern of results was the same, however, and so we retain results from the original analyses.

### 2.3 Measures and Procedure

The primary measure was a student-teacher drawing task adapted from Fury's (1996) child-family drawings (in which children are asked to draw themselves and their family as a measure of the parent-child relationship). To complete the task, students

were provided with a white A4 piece of paper, 10 coloured pencils, one lead pencil and an eraser. They were then asked to draw their classroom teacher, using the following instructions: "First, think about things (classroom teacher's name) does. Now think about things (classroom teacher's name) says to you. Can you draw a picture of you and (classroom teacher's name) at school?" There was no time limit to the task, and the actual completion times varied. Once students indicated that they had finished, they were asked if there was anything they wanted to add to their drawing and given additional time to do so if desired. Once complete, students were asked to identify themselves and their teacher by pointing to each in the drawing. They were then asked "Can you tell me about this picture? What have you drawn?" Although answers to these questions were typically brief and simplistic, they were used to interpret aspects of the drawings that were ambiguous. Once students had completed the drawing of themselves with their classroom teacher, the task was then repeated for their support teacher.

**2.3.1 Coding.** To code each student-teacher drawing, Harrison et al.'s (2007) adapted coding scheme was used. This scheme is based on Fury et al.'s (1997) original scheme for child-family drawings, with only minor amendments. Drawings were analysed across two positive and six negative dimensions: vitality/creativity<sup>5</sup>, pride/happiness, vulnerability, emotional distance/isolation, tension/anger, role reversal, bizarreness/dissociation, and global pathology (see Table 2). Each dimension was rated on a 7-point rating scale from 1 being very low, to 7 being very high. In Figure 1a, for example, role reversal was rated 7 because the student depicted himself as being much larger than his classroom teacher, with exaggerated arms and hands. In Figure 1b, role reversal is comparatively less extreme; however, the student still appears slightly more potent than his support teacher and is not easily recognisable as a child (rated 5). Inter-rater reliability was completed with 15% of the drawings, with the second coder blind to the study's hypotheses and participants' characteristics. Reliability on all dimensions was high, with all two-way mixed, single measure, intraclass correlation coefficients  $> .812$ ,  $p$ 's  $< .005$ .

Interestingly, five drawings depicted the teacher but not the student. Although Harrison et al. (2007) did not rate role reversal if a student excluded either themselves or their teacher, this approach would omit those students' data from the analysis entirely (i.e. even if the same students' other drawings included both figures). We

instead rated these drawings very low in role reversal, reasoning that drawings where the teacher is more powerful or potent than the student also score lower on this dimension. To ensure this approach did not affect our findings we then repeated our analyses by substituting those ratings with mean scores from the same phase of the study (see Elliott & Hawthorne, 2005). Our findings were unaffected; thus, we report results from our original analyses below.

Table 2. Drawing Dimensions for Student-Teacher Relationships

Dimension	Description
Vitality / Creativity	Emotional investment in drawing reflected in embellishment, detail, colour, and creativity.
Pride / Happiness	Student's sense of belonging and happiness in the relationship expressed by signs, symbols, positive affect and connection (e.g. smiles, hand holding, engaging in a positive activity together).
Vulnerability	Vulnerability and uncertainty reflected in size disproportions (e.g. teacher is huge), placement of figures on the page, and exaggerated body parts and/or facial features.
Emotional Distance / Isolation	Emotional separation reflected in disguised expressions of anger, neutral or negative affect, physical barriers and distance between figures (e.g. the student is distinctly separate, or figures are engaged in unrelated activities).
Tension / Anger	Tension or anger inferred from figures that appear constricted, closed, without colour or detail, careless in appearance, scribbled or crossed out (e.g. figures appear unfinished or have missing body parts).
Role Reversal	Suggestions of role reversal inferred from differentiation of size or roles of figures (e.g. child is larger than teacher). May include distorted body extremities.
Bizarreness / Dissociation	Underlying disorganisation expressed by unusual signs, symbols (e.g. dead trees, sharp teeth, red rain), or fantasy themes (e.g. the student appears animal-like or is depicted as being the teacher).
Global Pathology	Overall degree of negativity reflected in global organisation, completeness of figures, and use of colour, detail, affect, and background scene.

*Note.* Adapted from "Children's Representations of Attachment Relationships in Family Drawings," by G. Fury, E. A. Carlson and L. A. Sroufe, 1997, *Child Development*, 68, p. 1157. Copyright 2006 by John Wiley and Sons.

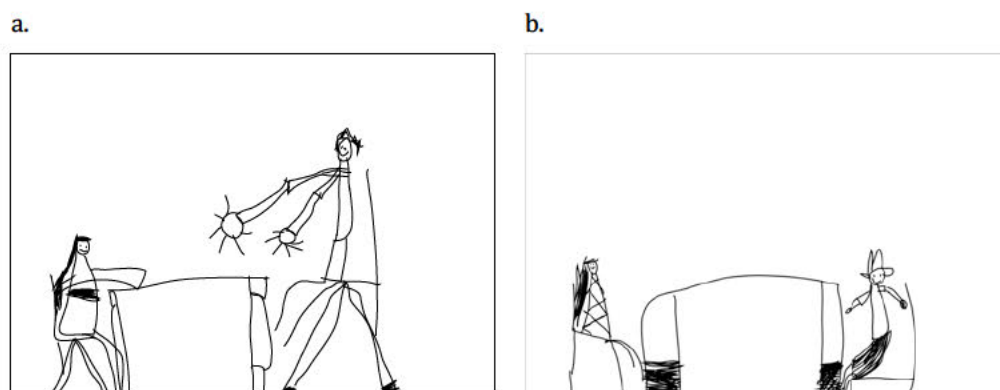


Figure 1. Example drawings provided by one disruptive boy showing (a) the student with his Kindergarten classroom teacher, and (b) the student with his Kindergarten support teacher (Phase 1). In both images the student is positioned on the right, sitting at a desk opposite the teacher<sup>6</sup>.

## 2.4 Analyses

Given the related nature of the dependent variables measured in the current study, running separate ANOVAs and ignoring the extent to which the variables are related would result in redundancy in the tests. A more effective method therefore is to run a multivariate analysis of variance (MANOVA). For this reason, to examine the relationship perceptions of disruptive students and test for interactions with gender, a mixed-design MANOVA was used. Student behaviour (disruptive, well behaved) and gender (boys, girls) were entered as between-subjects factors, and Fury's (1996) eight relationship dimensions (vitality/creativity, pride/happiness, vulnerability, emotional distance/isolation, tension/anger, role reversal, bizarreness/dissociation, and global pathology) were entered as dependent variables. To also test the robustness of these effects across different educational scenarios, teacher type (classroom, support) and phase (Phase 1, Phase 2) were entered as within-subjects factors. Finally, to check for differences in our findings between Kindergarten and first grade students, grade was also initially entered as a between-subjects factor. Because there were no significant main effect,  $F(8, 36) = .736, p = .659, \eta_p^2 = .141$ , or interaction effects,  $F's < 2.05, p's > .068$ , however, grade was omitted from our final analysis. Due to the nested nature of

the data, such that several individual children drew pictures about the same teachers (i.e. children were nested within teachers), an unconditional multilevel model was carried out for each dependent variable to assess the effect of this nesting. None of the effects of teacher were significant, with all intra-class correlations below .12 and most at 0. In other words, the variability between teachers accounted for no more than 12% of the variance of the datasets.

### 3. Results

We first present our results with regards to behaviour and gender (see Table 3). We then report on findings for teacher type and phase, focusing specifically on any interactions with behaviour and gender. All three- and four-way interactions were non-significant, and are not reported further. Figures 2, 3 and 4 provide examples of the kinds of responses gathered.

Table 3. Main effects and interaction effects for between-subject and within-subject factors

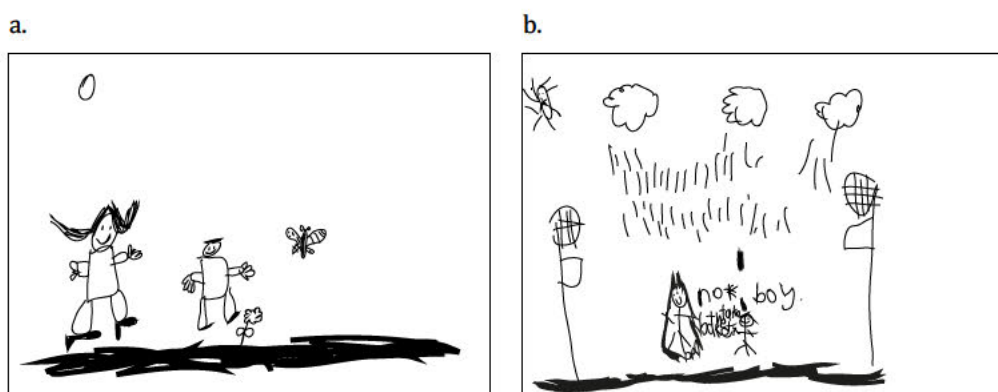
Effect	<i>F</i>	<i>p</i>	$\eta_p^2$
Main effect			
Behaviour	0.81	.597	.140
Gender	5.77	.000 <sup>+</sup>	.536
Teacher type	3.26	.006	.394
Phase	3.66	.003	.423
Interaction effect			
Behaviour*Gender	2.51	.026	.334
Behaviour*Teacher type	0.96	.481	.161
Behaviour*Phase	2.03	.067	.289
Gender*Teacher type	0.80	.605	.138
Gender*Phase	1.20	.325	.193
Teacher type*Phase	0.52	.836	.094

Note. *df* = 8, 40. <sup>+</sup>*p* < .0005. All three way and four way interactions were non significant, *F* s < 1.39, *p* s > .228.

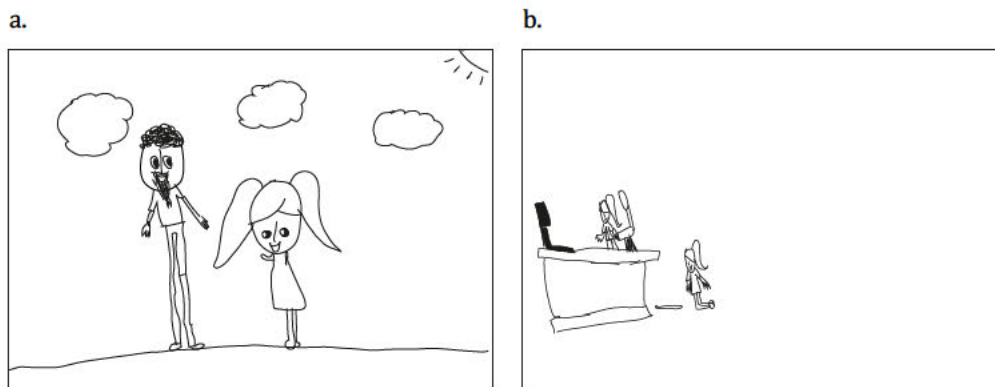


### 3.1 Effects for Behaviour and Gender

The main effect for student behaviour was not significant, suggesting no difference in the relational representations of disruptive and well behaved students (e.g. see Figures 2a and 3a). There was however a significant main effect for gender. Univariate analyses showed that girls' drawings of their classroom teachers were higher in relational positivity, including vitality/creativity,  $F(1, 47) = 8.04, p = .007, \eta_p^2 = .146$ , and pride/happiness,  $F(1, 47) = 31.38, p < .0005, \eta_p^2 = .400$ , whereas boys' drawings were higher in relational negativity, including vulnerability,  $F(1, 47) = 31.77, p < .0005, \eta_p^2 = .403$ , emotional distance/isolation,  $F(1, 47) = 23.54, p < .0005, \eta_p^2 = .334$ , tension/anger,  $F(1, 47) = 47.74, p < .0005, \eta_p^2 = .504$ , role reversal,  $F(1, 47) = 10.19, p = .003, \eta_p^2 = .178$ , bizarreness/dissociation,  $F(1, 47) = 43.13, p < .0005, \eta_p^2 = .479$ , and global pathology  $F(1, 47) = 31.28, p < .0005, \eta_p^2 = .400$  (see Table 4). Although there was a significant interaction between gender and behaviour overall (that is, for all relationship dimensions combined), between-subject effects on each independent relationship dimension were small and not significant,  $F's < 1.24, p's > .271, \eta_p^2 < .026$ . We do not interpret this interaction effect further.



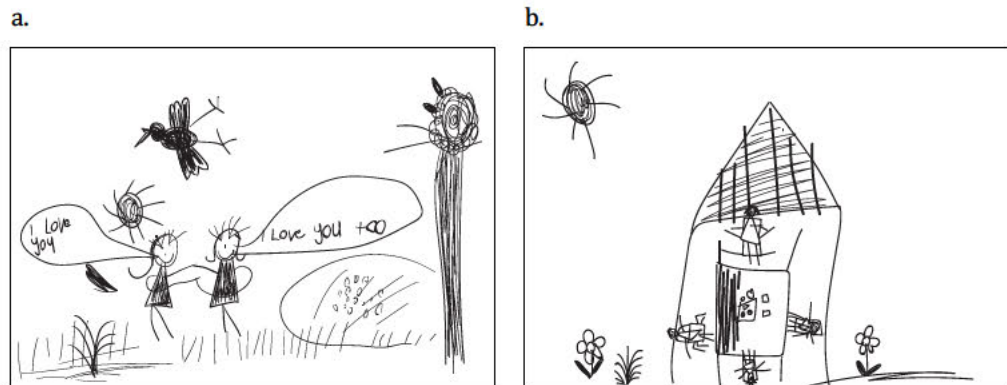
*Figure 2.* Drawings provided by one disruptive boy. The first image (a) shows the student with his Kindergarten classroom teacher at school (Phase 1). The second image (b) shows the student throwing mud and his first grade classroom teacher standing in the rain (Phase 2). According to the student, his first grade teacher is saying "Naughty boy", and he is replying "Take it back".



*Figure 3.* Drawings provided by one well behaved girl. According to the student these drawings show (a) the student helping her first grade classroom teacher in the playground (Phase 1), and (b) the second grade classroom teacher working at her desk while the student sits on the floor (Phase 2). Note that pride/happiness was rated higher in 3a than 3b. In 3a the figures are centred, easily distinguishable and appear to be reaching towards one another, whereas in 3b the figures are placed to the side of the page and appear less connected.

### 3.2 Interactions with Teacher Type

Of primary relevance to the current study, there were no significant interactions between teacher type and student gender or behaviour. We note however that the main effect for teacher type was significant. Averaged across student behaviour and gender, drawings of classroom teachers were higher in relational positivity, including vitality/creativity,  $F(1, 47) = 14.70, p < .0005, \eta_p^2 = .238$ , and pride/happiness,  $F(1, 47) = 5.82, p = .020, \eta_p^2 = .110$ , whereas drawings of support teachers were higher in relational negativity, including vulnerability,  $F(1, 47) = 7.94, p = .007, \eta_p^2 = .145$ , emotional distance/isolation,  $F(1, 47) = 7.46, p = .009, \eta_p^2 = .137$ , tension/anger,  $F(1, 47) = 11.76, p = .001, \eta_p^2 = .200$ , role reversal,  $F(1, 47) = 12.90, p = .001, \eta_p^2 = .215$ , bizarreness/dissociation,  $F(1, 47) = 8.48, p = .005, \eta_p^2 = .153$ , and global pathology  $F(1, 47) = 9.43, p = .004, \eta_p^2 = .167$ . In Figure 4, for example, differences can be seen in emotional distance/isolation: the student's representation of their relationship with their classroom teacher emphasises a close bond, whilst the student's representation of their relationship with their support teacher emphasises a classroom setting where the relationship is shared with other students.



*Figure 4.* Drawings provided by one well behaved girl. According to the student these drawings show (a) the student trying to hug her Kindergarten classroom teacher, and (b) a Kindergarten support teacher “playing puzzles” with her and two other students (Phase 1). Note that, although both drawings include positive symbolism, the figures in 4b are smaller, less detailed and seated around a desk (i.e. rated higher in emotional distance/isolation).

### 3.3 Interactions with Phase

Of primary relevance to the current study, there were no significant interactions between phase and behaviour or gender. There was also no interaction between phase and teacher type. We note however that the phase main effect was significant,  $F(8, 40) = 3.66, p = .003, \eta_p^2 = .423$ . Averaged across student behaviour and gender, univariate analyses showed drawings of teachers in Phase 2 (at the beginning of the new school year) were higher in emotional distance/isolation,  $F(1, 47) = 10.01, p = .003, \eta_p^2 = .176$ , and bizarreness/dissociation,  $F(1, 47) = 7.54, p = .009, \eta_p^2 = .138$ , (e.g. see Figures 2b and 3b). There were no other differences,  $F$ 's  $< 3.29, p$ 's  $> .076$ .

Table 4. Mean Scores for Drawings of Classroom Teachers and Support Teachers by Gender (29 Boys, 22 Girls) and Phase

	Classroom Teachers		Support Teachers	
	Boys	Girls	Boys	Girls
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Phase 1				
Vitality / Creativity	5.00 (1.60)	5.41 (0.91)	4.34 (1.42)	5.18 (0.96)
Pride / Happiness	4.52 (1.24)	5.73 (0.83)	4.14 (1.19)	5.36 (0.85)
Vulnerability	3.90 (1.37)	2.41 (1.18)	4.52 (1.12)	2.77 (1.41)
Emotional Distance / Isolation	3.45 (1.30)	2.23 (0.92)	3.90 (1.15)	2.68(0.57)
Tension / Anger	3.07 (1.19)	1.95 (0.79)	3.59 (1.09)	2.14 (0.77)
Role Reversal	3.34 (1.45)	2.36 (1.18)	3.62 (1.32)	2.91 (1.19)
Bizarreness / Dissociation	2.83 (1.10)	1.86 (0.71)	3.38 (0.94)	2.05 (0.65)
Global Pathology	3.55 (1.30)	2.27 (0.88)	4.07 (1.19)	2.73 (0.70)
Phase 2				
Vitality / Creativity	4.34 (1.42)	5.55 (1.10)	3.93 (1.41)	5.18 (1.01)
Pride / Happiness	4.07 (1.36)	5.41 (1.14)	3.79 (1.21)	5.32 (0.72)
Vulnerability	4.03 (1.12)	2.86 (1.52)	4.79 (0.98)	2.77 (1.38)
Emotional Distance / Isolation	3.93 (1.13)	2.91 (1.54)	4.41 (1.12)	2.82 (1.01)
Tension / Anger	3.41 (1.02)	2.09 (0.81)	4.00 (1.28)	2.27 (0.63)
Role Reversal	3.00 (0.80)	2.41 (1.22)	3.41 (1.18)	2.50 (1.01)
Bizarreness / Dissociation	3.59 (1.09)	2.23 (0.92)	3.76 (0.95)	2.41 (0.67)
Global Pathology	3.93 (1.13)	2.77 (1.23)	4.34 (1.08)	2.91 (0.75)

#### 4. Discussion

The present study contributes to the limited extant research on children's perceptions of student-teacher relationships by comparing the perceptions of students considered disruptive by their teachers and students considered well behaved. Using a student-teacher drawing task to depict the emotional quality of the relationship (see Harrison et al., 2007), and examining relationships with both classroom and support teachers, we hypothesised that disruptive students would portray greater negativity in their drawings than students nominated as being well behaved. Considering boys are more frequently identified as disruptive than girls, we also included gender as an independent factor: hypothesising that boys will perceive poorer relationships with

their teachers than girls. Although we found an interaction between gender and behaviour overall, there were no significant interaction effects on any individual relationship dimension (perhaps due to the low representation of disruptive girls in our sample). We therefore discuss our findings with regards to gender and behaviour separately.

In contrast to our first hypothesis, that disruptive students will depict relationships with their teachers more negativity than well behaved students, no significant effects were found. The disruptive young students in our sample appeared to view their relationships with classroom and support teachers no differently than the students considered well behaved. These findings differ from other studies investigating young children's perceptions of these relationships, which show that children's relationship perceptions are associated with teacher reports of problem behaviour (Mantzicopoulos & Neuharth-Pritchett, 2003; Spilt, Koomen, & Mantzicopoulos, 2010). These findings are also at odds with studies reporting teachers' perceptions, which show that teachers rate their relationships with disruptive students negatively (e.g. Ladd & Burgess, 1999; Silva et al., 2011).

There are several possible explanations for the differences observed between our findings (using student drawings) and those of previous studies reporting children's relationship perceptions. Firstly, methodological differences need to be considered. In the research conducted by Mantzicopoulos and Neuharth-Pritchett (2003) and Spilt, Koomen and Mantzicopoulos (2010) students were asked to agree or disagree with images representing warmth, conflict and dependency. In comparison, the present study required students to create their own images depicting their relationships with particular teachers, which were analysed for indications of students' affective relation to their teachers and perceived balance of power in those relationships. Additionally, although beyond the scope of this study to examine possible effects, we acknowledge that unlike Mantzicopoulos and Neuharth-Pritchett (2003) and Spilt, Koomen and Mantzicopoulos (2010), rather than using teacher ratings of problem behaviour and social skills, we were interested in teachers' own nominations of student behaviour as being either disruptive or well behaved, specifically from teachers who had taught those students for almost a full school-year.

Secondly, other theoretical explanations need to be considered. For example, given research showing younger students have difficulty recognising teachers' emotions

(Andersen, Evans, & Harvey, 2012), and are typically regarded as being egocentric, it may be that these students are simply unaware that a teacher's frustration with their behaviour may be indicative of a less warm relationship. In other words, any negative regard directed towards the disruptive student may go unnoticed. However, it is also possible, and perhaps more likely, that at a young age any negative regard may not affect the way the child feels about or depicts the relationship. Given the consistencies in child-parent and student-teacher relationships (O'Connor & McCartney, 2006), for example, young students who behave disruptively at home, yet still experience loving and supportive relationships with their parents, may expect their relationships with teachers to also be positive despite their behaviour. Indeed, Bowlby theorised that children's internal working models were both transferable and self-perpetuating:

Nevertheless, as a child grows older, the pattern becomes increasingly a property of the child himself, which means that he tends to impose it, or some derivative of it, upon new relationships such as with a teacher, a foster mother, or a therapist. (Bowlby, 1988, p. 143)

Alternatively, some students may behave disruptively as a way to maintain proximity and communication with teachers they like (McGrath & Van Bergen, 2015).

Furthermore, the modest and conflicting levels of agreement between student and teacher reports noted in other studies (e.g. Hughes, Cavell, & Jackson, 1999; Murray, Murray, & Wass, 2008; Spilt, Koomen, & Mantzicopoulos, 2010) may reflect students' and teachers' differing interpretations of challenging student behaviour. In the present study, for example, it is not known if disruptive students viewed their own behaviour as troublesome or not. In order to disentangle these possibilities, future research comparing teachers' and disruptive students' relationship perceptions needs to also consider students' own perceptions of their behaviour.

Our findings did, however, support our second hypothesis; that boys will depict relationships with their teachers that are higher in relational negativity than those of girls. In particular, boys' representations of their relationships with teachers evidenced poorer affective relation and a disproportionate balance of power, than did those of girls. These findings concur with other studies reporting students' (Koepke & Harkins, 2008; Mantzicopoulos & Neuharth-Pritcgett, 2003) and teachers' (e.g. Baker, 2006; Silver et al., 2005; Troop-Gordon & Kopp, 2011) perceptions of student-teacher relationship quality, showing boys have poorer relationships with teachers than girls.



Additionally, these findings reflect similarities with other studies using children's drawings, for example, showing boys' representations of their relationships with teachers (Harrison, Clarke, & Ungerer, 2007), and with their families (Dallaire, Ciccone & Wilson, 2012) are more negative than those of girls'.

Although it may be argued that differences between boys' and girls' representations of relationship quality reflect gender differences in children's drawing abilities and fine motor skills more generally (see Cherney et al., 2006), we find this position difficult to support when considering the present findings. We note that gender differences emerged on all drawing scales, whether these coded for embellishment and detail (i.e. vitality/creativity) or for psychological and relational aspects of the drawing (including proportions, placement and facial expressions). Additionally, we note that those boys' drawings that did suggest positive relationships included many of the same symbolic elements as girls' drawings (e.g. see Figures 2a and 3a). We therefore consider gender differences in students' drawings to reflect different representations of the student-teacher relationship, and not drawing ability.

Although we can only speculate, the gender differences in children's drawings may be explained by findings that boys receive more negative attention from their teachers than do girls (Kesner, 2000), and that teachers prefer the behaviour of girls to boys (Beaman, Wheldall, & Kemp, 2007; Kesner, 2000). Alternatively, these differences may be because boys are typically less engaged (Marks, 2000), have greater academic problems in school (Hamre & Pianta, 2001), and enjoy school less (Furrer & Skinner, 2003) than girls. It is therefore important for future research to determine the underlying drivers of these perceptions and guide the development of interventions aimed at improving student-teacher relationship quality.

While not the primary focus of the study, it is noteworthy that this study was the first to consider relationships with different types of elementary school teachers and at different points in time. Despite relationships with classroom and support teachers differing in duration and intensity, our findings showed that at the beginning of the next school year, students' drawings of their classroom teachers and support teachers were both rated higher in emotional distance/isolation and bizarreness/dissociation (e.g. see Figures 2 and 3). Together these dimensions tap feelings of emotional separation or loneliness, reflected in the placement of figures, and disorganisation reflected in unusual signs and symbols that may reveal feelings of hostility or abandonment (Fury,

1996). Considering that no significant differences were found between Kindergarten and first grade students' representations at either point in time, we suggest that these findings must be related to the new-year transition rather than reflecting a gradual decline in relationship quality noted in other research (e.g. Lynch & Cicchetti, 1997). It is therefore important for researchers to consider at what point in the school year they collect data examining students' perceptions, as well as other adjustment influences, and for teachers to consider ways to reduce students' feelings of emotional distance at the beginning of the school year.

#### **4.1 Limitations**

While our study is the first to compare the relationship perceptions of disruptive and well behaved Kindergarten and first grade students, focusing specifically on emotional tone, there are four key limitations. Firstly, the relatively small sample size and low representation of girls in the disruptive behaviour category did not allow us to accurately report the interaction between behaviour and gender. Specifically, while a significant overall effect was found, there were no significant effects on any one relationship dimension. Secondly, only classroom teachers were asked to nominate the students they found most disruptive. While the everyday classroom context is important, given that students spend the most time here, it is possible that support teachers might see these students differently (or, indeed, that students may behave differently for different teachers). Thirdly, we report solely on students' representations. While student reports are more likely to reflect emerging relational models of their interactions with a small number of teachers and other adults, teacher reports are more likely to reflect enduring relational models based on experiences with many students (Spilt, Koomen, & Mantzicopoulos, 2010). Lastly, because we chose to minimise the time elapsed between Phase 1 and 2 (thus minimising changes in cognitive development and physical dexterity), we were unable to comment on the evolution of the student-teacher relationship between disruptive young students and specific classroom teachers. We hypothesise that increases in emotional distance/isolation and bizarreness/dissociation occurs as students progress through elementary schooling – particularly as the same increase is also seen in drawings of support teachers (who are typically already known to the students) – yet we note the need for longitudinal research confirming this trend.



#### 4.2 Conclusion

The present study identifies how young children themselves represent the emotional quality of their relationships with teachers. Interestingly, and in contrast to other research, students whose teachers considered them disruptive viewed their relationships with teachers to be just as positive as did their well behaved peers. However, regardless of grade, behaviour, time of year, or type of teacher, boys' drawings of their relationships with teachers scored higher in emotional negativity than girls. Taken together, our findings suggest that there may be a critical period in early schooling in which disruptive students are protected from the negative consequences of a low-quality and conflictual relationship with their teachers. We highlight the need for interventions to target student behaviour in these early years, before the negative effects of their behaviour become entrenched. Unfortunately, in our sample, no such window exists for boys. Boys' poorer quality relationship perceptions, although sometimes considered normative, could place them at risk of maladaptive behaviour (Rudasill et al., 2010), negative relationships with peers (Hughes & Chen, 2011) and poorer academic outcomes (Hamre & Pianta, 2001). Greater attention must therefore be directed to enhancing these relationship perceptions: particularly at the beginning of the new school year, when *all* students perceive greater emotional distance from their teachers.

## Notes

<sup>1</sup> Global pathology was used as an indication of overall negativity rather than a composite score.

<sup>2</sup> The total number of disruptive student participants was fewer than the total number of well behaved students for two reasons. First, when recruiting student participants, one classroom teacher only nominated one disruptive student. This teacher perceived all other students in the class to be well behaved. Second, two disruptive students changed schools between phases and two were absent from school during Phase 2 testing. These students were excluded from the analyses.

<sup>3</sup> In government elementary schools in the Sydney region, classroom teachers teach the same students for 21 hours and 45 minutes each week whereas support teachers engage with those same students for approximately 1 hour per week (NSW DEC, 2015).

<sup>4</sup> The selection of classroom teachers in Phase 2 was based on students' enrolment in 9 first grade classes and 9 second grade classes.

<sup>5</sup> Although we report the vitality/creativity subscale as a positive dimension, others suggest that this dimension may be independent of emotional investment and therefore neutral (Fury, 1996; Harrison, Clarke, & Ungerer, 2007).

<sup>6</sup> Example images are digitally-traced black and white copies. Any identifying text, such as names, has been removed.

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## **Chapter 5: Teachers' Emotional and Relational Tone**

In the previous chapter I examined students' drawings of their relationships with teachers, finding that disruptive and well behaved students represent the emotional quality of these relationships in similar ways. Significant gender differences emerged, however, with boys depicting greater negativity in their drawings than girls. The following article investigates how the teachers in those students' drawings experience these same relationships. This article therefore addresses my second research question:

2. How do teachers express the emotional and relational quality of their relationships with disruptive and well behaved students?

To capture these expressions of emotional and relational quality, the Five-Minute Speech Sample task was used. Eliciting speech for analysis has long provided a useful way of examining evidence of participants' internal psychological state (e.g. Calam & Peters, 2006; Gottschalk & Gleser, 1969). Whilst this task has a long history of use in developmental and clinical psychology as a measure of expressed emotion, its use in educational research is limited. To date only one study has used this approach (see Daley, Renyard & Sonuga-Barke, 2005); investigating expressed emotion with high school teachers. I extend the use of this method to a sample of elementary teachers: using traditional speech sample coding for emotional tone (including: positive remarks, dissatisfactions and critical comments); and developing new codes for relational tone (closeness, conflict, dependency and overall tone). Additionally, this article extends my review of literature to consider teachers' emotional experiences in the classroom.

## Article III: Elementary teachers' emotional and relational expressions when speaking about disruptive students

### Elementary Teachers' Emotional and Relational Expressions When Speaking About Disruptive Students

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Elementary teachers' emotional expressions when speaking about disruptive students provide a previously unexamined source of classroom influence. The present study therefore examined how 47 elementary teachers spoke about their relationships with disruptive ( $n = 23$ ) and well behaved ( $n = 28$ ) students. Speech samples from classroom and support teachers were analysed for evidence of emotional and relational tone. Despite expressing similar relational closeness towards disruptive and well behaved students, classroom teachers expressed a more negative emotional tone (e.g. more frequent dissatisfactions) when speaking about disruptive students. Implications for the elementary classroom climate are discussed.

*Keywords:* Student-teacher relationship, emotion, expressed emotion, disruptive behaviour, student behaviour

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#### 1. Introduction

Elementary school teachers' relationships with their students are typically close; suggesting that a positive emotional bond exists. These positive bonds may be particularly important for disruptive students; predicting better behaviour (Silver, Measelle, Armstrong, & Essex, 2005) and protecting against referral to special education settings (Pianta, Steinberg, & Rollins, 1995). Whilst teachers' emotions in the classroom and the quality of their relationships with students have each been widely researched (see Fried, Mansfield, & Dobozy, 2015; Author & Author, 2015 for reviews), with student behaviour identified as a

catalyst for both (e.g. Hagenauer, Hascher, & Volet, 2015; Murray & Zvoch, 2011), few studies investigate these topics concurrently.

In a recent review of articles published in *Teaching and Teacher Education* over the last 30 years, Uitto, Jokikokko and Estola (2015) found just 12 articles discussing the role of emotions in teachers' relationships with students, parents, other teachers and principals. Of those studies reviewed, only two directly examined elementary teachers' relationships with disruptive students. Both were single-participant case studies examining a specific student-teacher relationship from the teacher's perspective (see Isenbarger & Zembylas, 2006; Newberry, 2010). The focus teacher in Isenbarger and Zembylas's (2006) case study reported personal satisfaction in teaching a disruptive student, despite also needing to manage unpleasant emotions resultant from the disruption. The focus teacher in Newberry's (2010) case study experienced a changing and highly volatile relationship that became much closer at the end of the school year. Together, these case studies provide valuable insights into the multifaceted and changing experiences of individual teachers when working with disruptive students. To date, however, no study has yet examined the emotional qualities of elementary teachers' relationships with disruptive students on a larger scale. We do not know if some teachers experience more emotionally positive relationships with disruptive students than others and, if so, how these relationships differ. Moreover, no study has examined elementary teachers' own emotional and relational expressions when speaking about multiple students in the same class. We do not know whether teachers talk differently about disruptive and non-disruptive students, or whether they typically express emotionally complex relationships with all students in the class.

Understanding teachers' emotional tone is particularly important given the intensity of elementary teachers' relationships with students (Hargreaves, 2000), the importance of teachers' emotional competence in developing positive student-teacher relationships (Jennings & Greenberg, 2009), and the behavioural, social, and academic implications of student-teacher relationship quality (Author & Author, 2015). The present study therefore sought to extend existing knowledge in the aforementioned distinct fields: employing a single quantitative measure to determine how elementary school teachers' emotional and relational expressions differed when speaking about disruptive and well behaved students. Specifically, verbal content analysis was used to examine how elementary teachers spoke about their students; with multiple teachers each speaking about the same students. Verbal content analysis provides a useful way of examining evidence of participants' internal psychological state (e.g. Calam & Peters, 2006; Gottschalk & Gleser, 1969). By assessing the emotional and

relational aspects of the content that teachers themselves willingly offer about each student, information can be gleaned about those relationship factors which are more prominent or important to the teacher themselves. This information is different and complementary to that offered in other research in reaction to interviewer cues or to self-report rating scale prompts, which necessarily seek particular information of theoretical importance (e.g. the presence of conflict in the relationship). We expand on our chosen approach below.

### 1.1 Theoretical Orientation and Definitions

Given that the present study combines two distinct fields of study, we begin by making our theoretical approach and methodology explicit. We use the Five-Minute Speech Sample (e.g. Calam & Peters, 2006; Gottschalk & Gleser, 1969), in which emotions are constituted as individual experiences or personal reactions to stimuli (Zembylas, 2007). The theoretical assumption underpinning our approach is that the relative magnitude of emotion in verbal content is proportional to the frequency of thematic statements (Gottschalk & Gleser, 1969). Consequently, rather than examining specific emotions (e.g. joy, anger, or sadness), the present study investigates teachers' *expressed emotional tone* when speaking about their students. For example, positive emotional tone is characterised by more frequent positive remarks and less frequent dissatisfactions and critical comments, while negative emotional tone is characterised by more frequent dissatisfactions and critical comments and less frequent positive remarks (see method section).

Secondly, drawing on an extensive body of research investigating the student-teacher relationship, predominantly informed by attachment theory (Bowlby, 1988), we examine expressed relationship quality based on closeness, conflict, dependency<sup>1</sup>, and overall tone. Using these dimensions, for example, a positive student-teacher relationship is characterised by higher ratings of closeness, a warm overall tone, and lower ratings of conflict and dependency. Whilst research investigating student-teacher relationship quality typically uses teacher-report rating scales that require teachers to respond to individual, pre-determined items (e.g. Pianta & Steinberg, 1992; Spilt, Koomen, & Jak, 2012), other approaches have also been considered. Some researchers have used observer ratings of these same relational dimensions (Doumen, Koomen, Buyse, Wouters, & Verschueren, 2012; Ladd, Birch, & Buhs, 1999), whereas others have used a structured interview protocol to investigate, for example, elementary teachers' own conceptions of student-teacher closeness (Newberry &

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<sup>1</sup> Closeness, conflict, and dependency were defined based on the work of Pianta and Steinberg (1992). These three dimensions are frequently used to define student-teacher relationship quality (see Author & Author, 2015; Sabol & Pianta, 2012 for reviews).

Davis, 2008). We instead examine these relational constructs using verbal content analysis. Our objective was to examine expressed relational tone from statements that were authentic, spontaneous and given freely by the teachers. We therefore build on the strong body of research using rating scales, which enable the careful measurement and assessment of pre-defined constructs of interest and code for these same relational constructs in teachers' own spontaneous relationship reflections. Importantly, we note also that these relational constructs do not exist in the absence of emotion: rather, in theoretical terms, emotions and relationships are inherently linked (Cross & Hong, 2012; Garner, 2010; Hagenauer, Hascher, & Volet, 2015; Yan, Evans, & Harvey, 2011). For example, closeness is often defined as a warm and affectionate or emotional bond, and conflict is frequently defined by anger (Ladd, Birch, & Buhs, 1999; Pianta, Steinberg, & Rollins, 1995; Solheim, Berg-Nielsen, & Wichstrøm, 2012). We therefore measure the associations between teachers' expressed emotional and expressed relational tone, which have not yet been empirically examined.

### **1.2 Disruptive Students, Teachers' Emotions, and Relationships**

Disruptive behaviour<sup>2</sup> is often identified as a key risk factor for students (Beaman, Wheldall, & Kemp, 2007); however, such behaviour also significantly influences teachers' emotions (e.g. Hagenauer, Hascher, & Volet, 2015) and perceptions of student-teacher relationship quality (e.g. Murray & Zvoch, 2011). With regards to teachers' emotions, student misbehaviour elicits negative feelings, such as anger and frustration (Hagenauer, Hascher, & Volet, 2015), which may eventually lead to emotional exhaustion and burnout (Chang, 2009, 2013; Skaalvik & Skaalvik, 2011; Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010). In accordance with the concept of emotional labour (Wharton, 2009), which explains that employment requires emotions to be managed conforming to predetermined rules, teachers report frequently hiding negative emotions, such as anger and dislike (Taxer & Frenzel, 2015). Indeed, it may be perceived as inappropriate for a teacher to express negative emotions towards, or about, their students. Accordingly, some teachers respond to problematic student behaviour by emotionally distancing themselves from those students (Newberry & Davis, 2008); thus compromising their ability to form positive student-teacher relationships (Jennings & Greenberg, 2009). Beyond conforming to workplace rules, however, Sutton, Mudrey-Camino and Knight (2009) suggest that teachers' emotion

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<sup>2</sup> Throughout our introduction we use the term 'disruptive behaviour' to encompass a range of behavioural definitions including misbehaviour, externalising disorders, antisocial behaviour, and difficult temperament. A definition of disruptive behaviour used in the present study can be found in the method section.

regulation may serve more abstract purposes: "...a teacher may try not to communicate her immediate feelings of anger toward a defiant student, because she believes this will help nurture her relationship with the child, which will help reduce the acting-out behavior in the long term" (p. 132). Nevertheless, students appear to be good observers of teachers' emotions (Anderson, Evans, & Harvey, 2012), and the damaging effects of negative teacher emotions extend to their students, influencing, for example, students' own emotions, motivation and wellbeing (Becker, Goetz, Morger, & Ranellucci, 2014; Sutton & Wheatley, 2003).

With regards to student-teacher relationships, a large body of research utilising teacher-report rating scales shows that teachers typically rate their relationships with disruptive students more negatively (i.e. higher in conflict and dependency, and lower in closeness) than with other students (Birch & Ladd, 1998; Henricsson & Rydell, 2004; Murray & Murray, 2004; Murray & Zvoch, 2011). Although positive relationships with students appear important for teachers' job satisfaction (Veldman, Tartwijk, Brekelmans, & Wubbles, 2013), little is known about how student-teacher relationship quality directly impacts teachers' other behaviours and outcomes. The damaging effects of negative student-teacher relationships on student outcomes, however, are well documented (Author & Author, 2015; Roorda, Koomen, Spilt, & Oort, 2011). Hamre and Pianta (2001), for example, found that relational negativity in Kindergarten predicted poorer behavioural and academic outcomes through eighth grade. Rudasill, Reio, Stipanovic, and Taylor (2010) also showed that student-teacher conflict in fourth grade predicted risky behaviour (e.g. smoking, drinking alcohol, and getting into fights) in sixth grade.

Despite growing research examining the impact student behaviour has on teachers' emotions and on the student-teacher relationship, little is known about the emotional tone of elementary teachers' relationships with disruptive and well behaved students. To date, the emotional tone of elementary student-teacher relationships has been investigated using observed classroom interactions (Ladd, Birch & Buhs, 1999) or students' ratings of emotional tone (Decker, Dona & Christenson, 2007); sometimes viewing emotional tone and relationship quality synonymously. Findings from these studies suggest that disruptive student behaviour may impact observable emotional tone more strongly than positive student behaviour (Ladd, Birch & Buhs, 1999) and that disruptive students' themselves perceive the emotional quality of their relationships with teachers positively (Decker, Dona, & Christenson, 2007). Elementary teachers' own perceptions of the emotional tone of these relationships are not yet known, however.

In contrast, the emotional tone of secondary teachers' relationships with disruptive students has been investigated using teachers' ratings of emotions (Hagenauer, Hascher, & Volet, 2015) and verbal content analysis (Daley, Renyard, & Sonuga-Barke, 2005). Hagenauer, Hascher and Volet (2015) examined 132 secondary teachers' ratings of their emotions towards teaching (joy, anxiety and anger), of student-teacher closeness, and of student behaviour. Their findings showed that high closeness predicted feelings of joy, low closeness predicted anxiety, and a lack of discipline predicted anger. Interestingly, emotions related to specific student-teacher relationships were not measured. Daley, Renyard and Sonuga-Barke (2005) compared how 21 secondary teachers described one disruptive and one well behaved boy from their class. Secondary teachers were more likely to speak in a negative emotional tone (indicated by critical comments and less frequent positive remarks) when talking about the disruptive boy than the well-behaved boy. There were also no indications of emotional-over involvement (which is sometimes measured in parent-child relationships): thereby providing evidence for the professional rather than personal nature of those relationships.

Understanding how elementary teachers themselves experience the emotional quality of their relationships with disruptive students is particularly important. These relationships form a vital part of the classroom emotional environment (Davis, 2003; Yan, Evans, & Harvey, 2011), and this environment in turn influences students' social, emotional, and academic outcomes (Garner, 2010; Jennings & Greenberg, 2009). Furthermore, findings from Roorda et al.'s (2011) meta-analysis show that student-teacher relationships that are high in relational conflict and dependency and low in relational closeness are particularly damaging to students' engagement and achievement in the elementary school years. By determining how teachers' emotional tone (when discussing their relationships with disruptive students) relates to these relational constructs, it may also be possible to develop new interventions aimed at enhancing student engagement and achievement. More broadly, understanding whether or not elementary teachers' relational tone or emotional tone (or both) could be improved when speaking about disruptive students may assist those interested in improving the emotional climate of elementary classrooms.

### **1.3 The Present Study**

The present study contributes to existing literature by comparing elementary school teachers' emotional and relational expressions when speaking about students who were either disruptive or well behaved. To achieve this, we used the Five Minute Speech Sample, adopting the same coding for emotional expressions as Daley, Renyard and Sonuga-Barke

(2005) and further developing a new verbal content coding scheme for four relational dimensions (closeness, conflict, dependency, overall tone). Based on our review of literature we formed three hypotheses:

1. That teachers' speech samples will be characterised by negative *emotional* tone (i.e. dissatisfactions, critical comments, negative initial statements and negative relationship quality statements) when speaking about disruptive students, and positive *emotional* tone (i.e. positive remarks, positive initial statements and positive relationship quality statements) when speaking about well behaved students.
2. That teachers' speech samples will be characterised by negative *relational* tone (i.e. conflict and dependency) when speaking about disruptive students, and positive *relational* tone (i.e. closeness and overall tone) when speaking about well behaved students.
3. That *emotional* and *relational* tone will relate to one another. Specifically, closeness and overall tone (relational expressions) will be positively associated with initial statements, relationship quality statements and positive remarks (emotional expressions) and negatively associated with dissatisfactions and critical comments (emotional expressions), whereas conflict and dependency (relational expressions) will be positively associated with dissatisfactions and critical comments (emotional expressions) and negatively associated with initial statements, relationship quality statements and positive remarks (emotional expressions).

To further examine the complexities of elementary school teachers' emotional and relational expressions when describing disruptive students, we extended the extant literature in two key ways. Firstly, we obtained speech samples from multiple elementary school teachers, including both classroom teachers and support teachers (e.g. teacher librarians, teachers' aides). We drew on the work of Hughes, Cavell and Jackson (1999), who found that second and third-grade elementary teachers reported different levels of positivity in their relationships with the same disruptive students (using items such as "I am glad this child is in my class"). Given this variation, we were interested in comparing levels of emotional and relational positivity expressed by classroom and support teachers who spoke about the same disruptive students.

Secondly, we obtained speech samples from teachers twice for each student: once at the end of one school year (Phase 1) and once at the beginning of the following school year



(Phase 2). We drew on the work of Newberry (2010), whose longitudinal work with one teacher found heightened relationship building in the first weeks of the school year and changing relationship quality throughout the school year. While we note the likelihood that students' own socio-emotional skills will grow over time, thus also contributing to a closer relationship at the end of the year, in Newberry's (2010) study, we see relationship duration as a potentially stronger factor. We therefore expected speech samples obtained at the end of the school year, when relationships were better established, to include more positive emotional and relational expressions than those collected at the beginning of the next year, when relationships were newer.

## 2. Method

### 2.1 Participants

Participants included 29 classroom teachers and 18 support teachers from three Australian government schools, purposively chosen from three distinct Greater Sydney regions: the Outer West, the Northern Beaches, and North Sydney (see Australian Bureau of Statistics, 2014). Classroom teachers were predominantly female (89.7%) and had between 1-30 years teaching experience ( $M = 10.31$ ,  $SD = 9.09$ ). Support teachers included teacher librarians, art teachers, sport teachers, language teachers, computer teachers and teachers' aides. Support teachers were also predominantly female (94.4%) and had between 1-35 years teaching experience ( $M = 13.83$ ,  $SD = 9.53$ ).

Support teachers differ from classroom teachers in two key ways. Firstly, their interactions with particular students are less frequent than those of classroom teachers. Whilst classroom teachers teach the same students for 21 hours and 45 minutes each week, support teachers typically engage with students for approximately 1 hour per week (NSW DEC, 2015). Secondly, the duration of support teachers' relationships with particular students is often greater than that of classroom teachers. Whilst elementary students' classroom teachers typically change each year, support teachers typically remain in the same role throughout those students' elementary schooling.

### 2.2 Design

Data was collected at two points in time. In Phase 1, commencing at the end of the school year (Term 4), 6 Kindergarten and 8 first grade classroom teachers were invited to nominate (i) two students in their class who frequently behaved disruptively, (ii) two students in their class who were well behaved, and (iii) one support teacher who regularly taught the nominated students. Disruptive behaviour was defined as any behaviour that frequently interfered with their teaching or other students learning (see Merrett & Wheldall, 1984).

Similar to other research (e.g. Clunies-Ross, Little, & Kienhuis, 2008), teachers identified disruptive behaviour as being somewhat minor but frequently occurring (e.g. calling out, distracting peers, being disobedient). We obtained separate Five Minute Speech Samples about each of the nominated students, disruptive and well behaved, from both the classroom and the support teacher.

In Phase 2, at the beginning of the next school year (Term 1), we tracked the enrolment of the nominated students to 9 first grade and 9 second grade classes<sup>3</sup>. We then invited the new classroom teachers to participate and to nominate a support teacher who would regularly be teaching their class that year<sup>4</sup>. The same interview procedure was then conducted with the new classroom and support teachers. The mean delay between phases was 3.53 months ( $SD = 0.50$ ). Using this design, a total of 204 speech samples were obtained for analyses.

### 2.3 Measure and Procedure

The Five Minute Speech Sample has a long legacy in developmental and clinical psychology. Originally developed by Gottschalk and Gleser (1969), the measure is now most frequently used in community samples to assess parents' expressed emotion (Calam & Peters, 2006; Daley, Sonuga-Barke, & Thompson, 2003; Psychogiou, Daley, Thompson, & Sonuga-Barke, 2007). Parents are asked to talk for five minutes about their child, and these explicit (or expressed) verbal descriptions are coded in a number of ways for emotional tone and valence. Drawing on the standard prompt given to parents (Magana et al., 1986), teachers were given the following instructions at the beginning of the interview: "I'm going to ask you about the four students in your class that are also participating in this study: (students' names). Firstly, I'd like to hear your thoughts about (student's name) in your own words and without my interrupting you with any questions or comments. When I ask you to begin, I'd like you to speak for five minutes, telling me what kind of a person (student's name) is and how the two of you get along together. After you have begun to speak, I prefer not to answer any questions. Are there any questions you would like to ask me before we begin?". To elicit speech, the following instructions were then given prior to each speech sample: "Can you tell me about (student's name)? Again, I'd like you to speak for five minutes telling me what kind of a person (student's name) is and how the two of you get along together". During the

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<sup>3</sup> Three classroom teachers participated in both phases of the study. One classroom teacher transitioned from being a Kindergarten teacher in Phase 1 to being a second grade teacher in Phase 2.

<sup>4</sup> Five support teachers participated in both phases of the study.

task the interviewer did not ask any questions or provide any further prompts to the participating teacher.

**2.3.1 Coding.** To examine teachers' emotional and relational expressions, each speech sample was coded in two ways (see Table 1). First, using standardised Five Minute Speech Sample coding (Daley et al., 2005; Psychogiou et al., 2007), speech was coded for six dimensions: initial statement (positive = 3, neutral = 2 or negative = 1), quality of relationship (positive, neutral or negative), positive remarks (frequency count), dissatisfactions (frequency count), critical comments (frequency count), and emotional over-involvement (present or absent). Second, drawing on research examining the student-teacher relationship via teacher-report rating scales (e.g Pianta, Steinberg, & Rollins 1995), speech samples were coded for four relational dimensions. Expressed closeness, conflict, dependency and overall tone were each coded on a 5-point rating scale ranging from 1 (very low), to 5 (very high)<sup>5</sup>. Inter-rater reliability was completed with 16% of the speech samples, with the second coder blind to the study's hypotheses and participants' characteristics. Intra-class correlation coefficients for all variables was high, ranging from .808 (dissatisfactions) to .916 (initial statements) for the standardised expressed emotion categories, and from .808 (overall tone) to .925 (dependency) for coding of relational dimensions.

## 2.4 Analyses

To examine how teachers emotional and relational expressions varied when speaking about well-behaved and disruptive students, a repeated measures MANOVA was used<sup>6</sup>. Student behaviour was entered as the between-subjects factor, and teacher type (classroom, support) and phase (Phase 1, Phase 2) were entered as within-subject factors. Finally, each of the expressed emotion codes (initial statement, quality of relationship, positive remarks, dissatisfactions, critical comments) and expressed relational codes (closeness, conflict, dependency, and overall tone) were entered as dependent variables.

Student gender was initially also entered as a between-subjects factor; however, because gender was not significant for any variable,  $F$ 's < 1.40,  $p$ 's > .243, and because no

<sup>5</sup> Relational tone rating scales are available from the authors on request.

<sup>6</sup> As each teacher reported on several students, we also conducted an unconditional multilevel model for each dependent variable to assessed the nested nature of the data (with children nested within teachers). Nesting was only significant for three of the nine variables (closeness, conflict, and initial statement), ICC's > .453,  $p$ 's < .05, and was not significant for any of the other variables,  $p$ 's > .262. Significant results for each of these multilevel models matched our repeated measures MANOVAs; whether nesting was significant or not. We therefore report the results of each MANOVA. Multilevel model results are available from authors on request.

significant interactions between gender and behaviour were found,  $F's < .33$   $p's > .568$ , it was removed from further analysis. Additionally, because emotional over-involvement (specifically, statements of attitude) was only present in 4.2% of all speech samples, this dimension was omitted from further analysis. We note that this code may be more relevant to parents and their children, and that the absence of emotional over-involvement in the student-teacher relationship is consistent with previous findings from secondary teachers (Daley, Renyard & Sonuga-Barke, 2005). Drawing on the notion of emotional labour, teachers may suppress particularly strong emotional responses towards particular students in line with their professional position (e.g. Jiang, Vauras, Volet, & Wang, 2016; Taxer & Frenzel, 2015).

Table 1. Coding Dimensions for Emotional and Relational Tone

Dimension	Description
Emotional Tone	
Initial Statement	The first complete idea provided about the student.
Quality of Relationship	Combined remarks of perceived relationship quality.
Positive Remarks	Statements describing a positive characteristic or behaviour of the student that may indicate liking, affection or approval.
Dissatisfactions	Statements describing the student's unfavourable behaviours, characteristics or personality traits (e.g. '...is often doing the wrong thing')
Critical comments	Statements showing unambiguous dislike, disapproval, or resentment of the student's behaviour or personality (e.g. 'He annoys me').
Emotional Over-involvement	Indicated by the presence of one or more components: statements of attitude (showing feelings of love); emotional display (e.g. crying); self-sacrificing or overprotective behaviour; or excessive detail when talking about a relatively minor aspect of the student.
Relational Tone	
Closeness	How close or distant the relationship is, as indicated by the amount of detail in the speech sample, the teacher's liking of the student, and evidence that the teacher and student communicate openly with one another.
Conflict	Teacher perceived negativity that is problematic, difficult to manage or expressed with a negative tone.
Dependency	How reliant, demanding or possessive the teacher describes the student as being.
Overall Tone	How warm or cold the speech sample is, considering the speech sample holistically and all previous relational ratings.

To determine the associations between teachers' expressed emotional and expressed relational tone, we followed our MANOVA with an analysis of correlations between each of the dependent variables (controlling for teacher type and phase).

### 3. Results

We present our results first for the MANOVA, looking at emotional tone then relational tone, and second for the correlation between emotion and relationship variables. For both emotional tone and relational tone we examine the main effects of student behaviour (disruptive vs. well-behaved) first, followed by interactions of student behaviour with phase and with teacher type. Note that no three-way interactions between behaviour, phase, and teacher type were significant ( $F$ 's < 1.08,  $p$ 's > .304), and we do not discuss these further.

#### 3.1 Emotional Tone

There were significant main effects of student behaviour on four expressed emotion variables. When speaking about disruptive students, teachers used a more negative emotional tone characterised by less frequent positive initial statements,  $F(1, 49) = 5.62, p = .022, \eta^2 = .103$ , and more frequent critical comments,  $F(1, 49) = 4.92, p = .031, \eta^2 = .091$ , (see Table 3). Teachers also used fewer positive remarks,  $F(1, 49) = 19.21, p < .0005, \eta^2 = .282$  and more frequent dissatisfactions,  $F(1, 49) = 49.81, p < .0005, \eta^2 = .504$ , when speaking about disruptive students, however these findings were modified by significant interactions with phase and teacher type. These interactions are described below.

**3.1.1 Interactions with phase.** A significant interaction between student behaviour and phase emerged for positive remarks,  $F(1, 49) = 8.24, p = .006, \eta^2 = .144$ . In Phase 1, conducted at the end of the school year, teachers made significantly more positive remarks about well-behaved than disruptive students,  $F(1, 200) = 22.99, p < .0005$ . In Phase 2, conducted at the beginning of the next school year, however, there was no difference in the frequency of teachers' expressed positive remarks about disruptive and well behaved students,  $F(1, 200) = 1.57, p = .211$ . There were no other significant interactions with phase,  $F$ 's < .774,  $p$ 's > .083.

**3.1.2 Interactions with teacher type.** Significant interactions between student behaviour and teacher type emerged for both positive remarks,  $F(1, 49) = 7.83, p = .007, \eta^2 = .138$  and dissatisfactions,  $F(1, 49) = 17.40, p < .0005, \eta^2 = .262$ . Classroom teachers expressed significantly more positive remarks when speaking about well behaved students than did support teachers,  $F(1, 200) = 21.20, p < .0005$ . Classroom and support teachers,

however, did not differ significantly in the frequency of expressed positive remarks when speaking about disruptive students,  $F(1, 200) = 0.23, p = .634$ . Classroom teachers also expressed significantly more dissatisfactions when speaking about disruptive students than did support teachers,  $F(1, 200) = 22.44, p < .0005$ . Classroom and support teachers did not differ significantly in the frequency of expressed dissatisfactions when speaking about well behaved students,  $F(1, 200) = .01, p = .909$ , however. There were no other significant interactions with teacher type,  $F's < 2.07, p's > .157$ .

### 3.2 Relational Tone

There were significant main effects of student behaviour on two expressed relationship variables. When talking about disruptive (vs. well-behaved) students, teachers' expressed greater relational negativity characterised by less overall warmth,  $F(1, 49) = 5.42, p = .024, \eta^2 = .100$ . Teachers also expressed greater conflict,  $F(1, 49) = 68.53, p < .0005, \eta^2 = .583$  when talking about disruptive students, however, this finding was modified by a significant interaction with teacher type. No significant main effects of student behaviour were found for teachers' expressed closeness,  $F(1, 49) = .04, p = .836, \eta^2 = .001$ , or dependency,  $F(1, 49) = 1.31, p = .257, \eta^2 = .026$ .

**3.2.1 Interactions with phase.** There were no significant interactions between student behaviour and phase for relational variables<sup>7</sup>,  $F's < 2.79, p's > .101$ .

**3.2.2 Interactions with teacher type.** As noted above, a significant interaction between student behaviour and teacher type emerged for expressed conflict,  $F(1, 49) = 17.59, p < .0005, \eta^2 = .264$ . Classroom teachers expressed significantly more conflict in their relationships with disruptive students than did support teachers,  $F(1, 200) = 8.47, p = .004, .$  Classroom and support teachers did not differ in expressed conflict when speaking about well behaved students,  $F(1, 200) = .63, p = .430$ , however. There were no other significant interactions between student behaviour and teacher type,  $F's < 3.67, p's > .061$ .

### 3.3 Correlations Between Emotional and Relational Variables

Correlation analyses demonstrated a good alignment between teachers' emotional and relational expressions (see Table 2). First, relational closeness was positively correlated with several expressed emotion variables including initial statements, quality of relationship statements, and positive remarks. Closeness was negatively correlated with critical comments

<sup>7</sup> Follow up analyses across all students (i.e. regardless of behaviour) showed that speech samples obtained at the end of the school year were rated higher in closeness,  $F(1, 49) = 8.47, p = .005, \eta^2 = .147$ , conflict,  $F(1, 49) = 9.36, p = .004, \eta^2 = .160$ , and dependency,  $F(1, 49) = 6.58, p = .013, \eta^2 = .118$ , than those obtained at the beginning of the following year.

(but not dissatisfactions). Second, relational conflict was positively correlated with emotional dissatisfactions and critical comments, and negatively correlated with initial statements, quality of relationship statements, and positive remarks. Third, overall relational tone was positively correlated with initial statements, quality of relationship statements, and positive remarks, and negatively correlated with dissatisfactions and critical comments.

While alignment between teachers' emotional and relational expressions was strong, some exceptions emerged. In the case of relational dependency, for example, significant correlations were limited to the negative emotional variables: dissatisfactions and critical comments. Dependency was independent of emotional or relational positivity. Furthermore, while closeness was negatively associated with critical comments it was not associated with dissatisfactions, conflict, or dependency. This means that teachers' speech could include expressed closeness despite emotional or relational negativity also being present.

Table 2. Partial Correlations Between Emotional and Relational Dimensions Controlling for Time and Teacher Type (N = 204)

Variable	1	2	3	4	5	6	7	8
1. Initial statement	-							
2. Quality of relationship	.222*	-						
3. Positive remarks	.374***	.368***	-					
4. Dissatisfactions	-.286***	-.074	-.279***	-				
5. Critical comments	-.291***	-.197**	-.236**	.436***	-			
6. Closeness	.280***	.342***	.525***	-.026	-.220**	-		
7. Conflict	-.226**	-.138*	-.294***	.803***	.473***	-.003	-	
8. Dependency	-.131	.056	.006	.292***	.240**	.060	.161*	-
9. Overall tone	.378***	.296***	.500***	-.280***	-.376***	.727***	-.278***	.016

Note. \* $p < .05$  \*\* $p < .005$  \*\*\* $p < .0005$



Table 3. Descriptive Statistics for Emotional and Relational Dimensions by Teacher Type and Time

	Classroom Teachers				Support Teachers			
	Well behaved students		Disruptive students		All students		Well behaved students	
	<i>M (SD)</i>		<i>M (SD)</i>		<i>M (SD)</i>		<i>M (SD)</i>	
Phase 1								
Initial statement	2.39 (0.57)		2.13 (0.76)		2.27 (0.67)		2.43 (0.57)	
Quality of relationship	2.50 (0.51)		2.30 (0.47)		2.41 (0.50)		2.29 (0.46)	
Positive remarks	8.75 (3.06)		4.65 (2.53)		6.90 (3.48)		5.18 (3.14)	
Dissatisfactions	1.57 (2.08)		6.70 (3.35)		3.88 (3.73)		1.50 (1.77)	
Critical comments	0.11 (0.42)		0.52 (0.95)		0.29 (0.73)		0.32 (0.82)	
Closeness	3.89 (0.88)		3.52 (1.08)		3.73 (0.98)		2.50 (1.04)	
Conflict	1.50 (0.79)		3.91 (0.85)		2.59 (1.46)		1.68 (1.02)	
Dependency	1.79 (1.10)		2.22 (1.41)		1.98 (1.26)		1.46 (0.92)	
Overall tone	4.25 (0.84)		3.61 (1.16)		3.96 (1.04)		3.36 (1.19)	
Phase 2								
Initial statement	2.43 (0.50)		2.26 (0.69)		2.35 (0.59)		2.46 (0.51)	
Quality of relationship	2.39 (0.50)		2.26 (0.54)		2.33 (0.52)		2.32 (0.48)	
Positive remarks	5.61 (3.13)		3.61 (2.55)		4.71 (3.03)		3.86 (2.73)	
Dissatisfactions	0.75 (1.46)		4.70 (3.44)		2.53 (3.21)		1.25 (2.40)	
Critical comments	0.04 (0.19)		0.39 (0.84)		0.20 (0.60)		0.14 (0.59)	
							0.13 (0.34)	
							2.30 (0.64)	
							2.30 (0.47)	
							4.30 (3.51)	
							3.13 (2.44)	
							0.13 (0.34)	
							2.39 (0.57)	
							2.31 (0.47)	
							4.06 (3.08)	
							2.10 (2.57)	
							0.14 (0.49)	

Closeness	2.75 (0.93)	2.74 (0.92)	2.75 (0.91)	2.36 (0.95)	2.91 (1.24)	2.61 (1.12)
Conflict	1.21 (0.50)	3.04 (1.30)	2.04 (1.31)	1.36 (0.73)	2.57 (1.38)	1.90 (1.22)
Dependency	1.36 (0.68)	1.65 (0.98)	1.49 (0.83)	1.29 (0.66)	1.26 (0.54)	1.27 (0.60)
Overall tone	3.64 (0.62)	3.22 (0.80)	3.45 (0.73)	3.29 (0.85)	3.30 (0.97)	3.29 (0.90)

*Note.* Well behaved students:  $n = 28$ . Disruptive students:  $n = 23$ . All students:  $n = 51$

#### 4. Discussion

This study is the first to use verbal content analysis to examine elementary teachers' emotional and relational expressions when speaking about disruptive and well-behaved students. Classroom and support teachers each provided authentic, open-ended speech samples about the same cohort of students as they progressed from Kindergarten and first grade, to first and second grade. Teachers' spontaneous verbal expressions as they undertook the task were used as representations of their own internal relationship representations, depicting emotional qualities that are particularly prominent or important to the teacher themselves.

Our first hypothesis, that teachers would use more negative emotional tone (e.g. dissatisfactions and critical comments) when speaking about disruptive students and more positive emotional tone (e.g. positive initial statements and positive remarks) when speaking about well-behaved students, was supported by our results. These findings indicate a negative emotional tone towards disruptive students, even in the earliest years of elementary school. These findings are consistent with past research showing that disruptive student behaviour elicits negative emotions in teachers (Hagenauer, Hascher, & Volet, 2015), and extend this early emotion research by identifying the emotional intensity of elementary classroom and support teachers' relationships with students, as well as a time of year when emotional intensity is particularly strong.

Interestingly, two significant differences were found between classroom teachers and support teachers. Compared to support teachers, classroom teachers' speech samples were marked by more frequent dissatisfactions when speaking about disruptive students, and more frequent positive remarks when speaking about well-behaved students. Taken together, these findings suggest greater emotional intensity in the student-teacher relationships of classroom teachers. This is perhaps not surprising, given the more intensive time that students and classroom teachers spend together: yet it raises the important prospect that support teachers may be capable of providing emotional support to disruptive students when classroom teachers cannot.

Regardless of teacher type, variations depending on time of year were also noted for expressed positive remarks. Although positive remarks were a salient feature of teachers' speech samples when speaking about well-behaved students at the end of the school year, teachers did not differ in expressed positive remarks when speaking about disruptive and well-behaved students at the beginning of the next school year. At face value, it is tempting to conclude that new teachers at the beginning of the next school year simply do not know

each student well enough to have formed a meaningful impression. Counteracting this possibility, however, is the finding that more negative emotional expressions were used for disruptive students at *both* points in time. Thus, while markers of an emotionally positive relationship emerge across time, markers of an emotionally negative relationship are quick to emerge. Although beyond the scope of our present study, it is possible that teachers simply interact less frequently with well-behaved students at the beginning of the year. Disruptive students, in contrast, may be more likely to dominate classroom interactions at a time when patterns, routines and boundaries are still being established (Newberry, 2010).

A strong body of past research uses teacher-report rating scales to show how teachers experience more negative relationships with disruptive students than with other students (e.g. Murray & Zvoch, 2011), characterised by lower ratings of closeness and higher ratings of conflict and dependency. The present study extends this body of work to also consider teachers' verbal expressions; examining how those same relational constructs manifest as expressed relational tone. Based on past research we expected that teachers would express a negative relational tone (e.g. greater conflict and dependency) when speaking about disruptive students and a positive relational tone (e.g. greater closeness and warmer overall tone) when speaking about well-behaved students. Our second hypothesis, however, was only partially supported by our results. In particular, our findings were consistent with the extant literature for conflict and overall tone (e.g. Birch & Ladd, 1998; Henricsson & Rydell, 2004; Murray & Murray, 2004; Murray & Zvoch, 2011), showing greater conflict with disruptive students and a warmer overall tone with well behaved students. However, our findings were inconsistent with broader literature for closeness and dependency (Birch & Ladd, 1998; Murray & Murray, 2004), with no difference for disruptive and well-behaved students.

Expressed conflict was a salient feature of classroom teachers' speech samples when speaking about disruptive students, regardless of time of year. This supports the notion that student-teacher relational conflict is a stable construct (Birch & Ladd, 1998; Jerome, Hamre, & Pianta, 2009; Pianta, Steinberg, & Rollins, 1995). While we found no difference in expressed closeness between disruptive and well-behaved students, we acknowledge that methodological differences may explain the different findings between past research (e.g. Birch & Ladd, 1998; Murray & Murray, 2004; Murray & Zvoch, 2011; but see Henricsson & Rydell, 2004, for exception) and ours. We note above, for example, that while teacher rating-scales include items specifically designed to generate precise ratings for each relationship dimension, the speech sample task instead captures naturally occurring and spontaneous expressions. After the initial instructions, no specific prompts are given. Thus while teachers

completing a rating scale will reflect systematically on each item, and give equal importance to each, those completing the speech sample task may only reflect on the prominent or defining features of each particular relationship. It is therefore possible that teacher-report rating scales provide a better indication of how teachers perceive specific relationship facets of theoretical importance, whereas the speech sample task may provide a better indication of the relationship aspects that are most salient to the teacher. To further understand these findings, we turn to our third hypothesis: that expressed emotional tone and expressed relational tone will relate to one another.

Overall, our findings demonstrated a good match between our emotional and relational variables; offering support for the interconnectedness of these previously distinct fields of research. For example, conflict was positively associated with both critical comments and dissatisfactions, and negatively associated with positive remarks. Contrary to our third hypothesis, however, expressed closeness was negatively related to critical comments but *not* to dissatisfactions. The expression of critical comments therefore provided an indication of a more troubled relationship with those students than did dissatisfactions alone; offering potential new insights for determining the student-teacher relationships most at risk. Because dissatisfactions are descriptive, stated objectively and unpassionately, they do not meet the criteria for a critical comment (Daley, Renyard, & Sonuga-Barke, 2005), which includes similar content within a critical phrase (Daley, Sonuga-Barke, & Thompson, 2003). These findings suggest that dissatisfactions may be a normal feature of teachers' verbal behaviour when speaking about disruptive students, and that it is only when these expressions take the form of critical comments that expressed closeness towards the student is threatened.

While not the primary focus of our research, we also note two interesting findings in the pattern of associations for relational variables. Similar to past research (Birch & Ladd, 1998; Ewing & Taylor, 2009; Murray & Murray, 2004), expressed relational dependency was positively associated with expressed conflict. Surprisingly, however, and in contrast to past research (Birch & Ladd, 1998; Murray & Murray, 2004), we note above that teachers did not differ in expressed relational dependency when speaking about disruptive or well-behaved students. Extending upon these findings, our comparisons with emotional expressions indicated that dependency was independent of emotional positivity (i.e. initial statements, quality of relationship statements, and positive remarks). Taken together, our results suggest that although dependency was associated with other negative emotional and relational variables, no differences emerged with a more positive emotional tone. These findings

therefore contribute to other discussions about whether or not dependency is a positive or negative relational construct, particularly with young children (Solheim, Berg-Nielsen, & Wichstrøm, 2012). For example, positive effects have been found between dependency and cooperative participation and task involvement with Kindergarten students (Doumen et al., 2012).

The present findings hold particular implications for those interested in improving the climate of elementary classrooms. Namely, our findings highlight the importance of enhancing the *emotional quality* of teachers' relationships with disruptive students; particularly for classroom teachers, and particularly at the end of the school year. Although student-teacher closeness has been found to have a remedial effect on disruptive student behaviour (Morrison & Bratton 2010; Silver et al., 2005; Tsai & Cheney, 2012), the emotional quality of these relationships is rarely considered. By highlighting the important role of critical comments in particular, and of expressed emotion more broadly, we demonstrate a new way of conceptualising the relationship between students and their teachers. Considering the association between critical comments and closeness, interventions that assist teachers to guide any negative regard away from the student themselves and towards the student's behaviour, may offer a unique opportunity to further enhance student-teacher closeness.

#### **4.1 Limitations**

Notwithstanding the important contributions to research investigating teacher emotions and the student-teacher relationship, the present study has two key limitations. First, although our analysis of verbal content is the first to capture information about elementary teachers' emotional tone using teachers' own expressions, we note that we used a single quantitative method to determine both expressed emotional and expressed relational tone. In light of our findings regarding expressed relational closeness, which differ from findings in which teacher rating scales are used, a comparison between teachers' ratings of relationship quality and teachers' emotional expressions is needed. Second, although our complex design gave strength to our small sample size, cumulating in the analysis of 204 speech samples, further research is needed with a larger sample to confirm the generalisability of the present findings in new populations, school districts, and year groups. Given the pattern of change in student-teacher conflict, closeness, and dependency across the school years (O'Connor, 2010; Roorda et al., 2011), we note the potential for changes in the emotional tone of the relationship too.

#### **4.2 Conclusion**

Elementary teachers' emotional and relational expressions tap a specific source of classroom influence: teachers' internal psychological state. Speech samples obtained from classroom teachers, particularly at the end of a school year, evidenced the most intense emotional relationships with students. Unlike teacher-report ratings scales, however, verbal content analysis showed no significant differences in expressed relational closeness, despite teachers expressing a more negative emotional tone when speaking about disruptive students. Greater attention must therefore be directed to improving the emotional quality of elementary classroom teachers' relationships with disruptive students.

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## **Chapter 6: A Qualitative Investigation of 'Complicated' Relationships**

In Article III, I examined teachers' expressed emotional and relational tone when speaking about disruptive and well behaved students. As hypothesised, teachers showed poorer emotional tone when speaking about disruptive students. Expressed relational closeness, however, did not differ when speaking about disruptive or well behaved students; suggesting that these teachers experienced close relationships with students despite conflict. The following chapter addresses the third research question that emerged as a result of these findings:

3. What characteristics of teachers' speech facilitate expressed relational closeness with disruptive students?

To answer this question, I describe a process of identifying 'complicated' relationships: high in both expressed closeness and conflict. Using an inductive qualitative approach (see Hsieh & Shannon, 2005) I then compare how different teachers described their relationships with eight disruptive students. This inductive approach was chosen as it is suitable for investigating a particular phenomenon that has not been widely researched (Elo & Kyngäs, 2008). Article IV describes my rationale, coding and analyses. More broadly, Article IV also extends my review of literature to consider the importance of teachers' emotional skills and competencies when forming relationships with their students.

## Article IV: “He Really Means Well”: Close Relationships Between Elementary Teachers and Their Disruptive Students

### “He Really Means Well”: Close Relationships Between Elementary Teachers and Their Disruptive Students

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The present study identified six classroom teachers who, at the end of the school year, expressed strong feelings of closeness towards eight disruptive students in Kindergarten and first grade. Speech samples from each of these teachers were analysed to determine characteristics that may facilitate relational closeness in spite of student-teacher conflict. To examine how other teachers perceived their relationships with these same students, we also obtained speech samples from four support teachers. Finally, we tracked those same eight students through to the beginning of the following year and examined their relationships with new classroom and support teachers. We identified two characteristics of teachers’ speech that guided relational closeness with disruptive students: attributions for disruptive behaviour and teacher emotional competence.

*Key words:* Student-teacher relationship, disruptive behaviour, closeness, emotion competence, attributions

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#### 1. Introduction

Scarcely reported in educational research, we know little about close relationships between elementary teachers and disruptive students. Although systems-level analyses show that teachers predominantly report negative relationships with disruptive students, characterised by high conflict and low closeness (Birch & Ladd, 1998; Howes, 2000; Murray & Zvoch, 2011), some teachers nonetheless report close relationships with such students (Henricsson & Rydell, 2004; Murray & Murray, 2004; Spilt &

Koomen, 2009). Additionally, while longitudinal research shows moderate consistency in classroom teachers' ratings of student-teacher conflict over time, results regarding relational closeness are equivocal. While some studies show moderate consistency, albeit typically lower than for conflict (Birch & Ladd, 1998; Blacher, Baker, & Eisenhower, 2009; Jerome, Hamre, & Pianta, 2009; Howes, Phillipsen, & Peisner-Feinberg, 2000; Pianta & Stuhlman, 2004), others find no effect (Pianta, Steinberg, & Rollins, 1995). These findings not only suggest that student-teacher closeness is less stable than conflict (Blacher, Baker, & Eisenhower, 2009; Jerome, Hamre, & Pianta, 2009), but also raise the possibility that some disruptive students might experience close relationships with particular teachers, despite the presence of conflict (Howes, 2000; Murray & Murray, 2004; Spilt & Koomen, 2009).

To investigate such relationships, the present study identified a small group of disruptive elementary students with whom teachers express close relationships. The study aimed to identify the characteristics and qualities that facilitate relational closeness, despite existing student-teacher conflict. Given that close relationships with disruptive students are uncommon, a qualitative approach was employed to better understand the complexities of these particular relationships. While these complexities may not be generalizable to all disruptive students, they nonetheless offer useful insights into the relationship qualities that protect some disruptive students and not others.

To date, the factors facilitating teachers' perceptions of closeness with disruptive students have remained largely unexamined. Understanding the impetuses of such relationships, however, is important for both teachers and students. Disruptive student behaviour is a common cause of negative teacher-emotions (e.g. anger and frustration), which can in time lead to emotional exhaustion (Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010) and teacher burnout (Chang, 2013). While student-teacher closeness may protect against burnout (Milatz, Lüftenegger, & Schober, 2015), non-close relationships instead inspire "feelings of ineffectiveness [that discourage teachers from investing in the child]" (Spilt & Koomen, 2009, p. 95). Teachers' emotional experiences and their perceptions of closeness also each significantly predict students' own emotions and behaviour (Becker, Goetz, Morger, & Ranellucci, 2014; Meehan, Hughes, & Cavell, 2003), thus impacting the emotional climate of the classroom more broadly. Students who receive less emotional support from their teachers are more



likely to become disengaged (Klem & Connell, 2004), to act disruptively (Bru, Stephens, & Torsheim, 2002) and to be perceived negatively by their peers (Hughes, Cavell, & Wilson, 2001), while improved teacher-rated closeness has been associated with reduced student aggression and improved behaviour (Meehan, et al., 2003; see also Blacher, Baker, & Eisenhower, 2009). Taken together, these findings provide a strong rationale for examining the characteristics of close relationships with disruptive students.

Notwithstanding the inherently emotional nature of relationships (Garner, 2010), few studies to date have considered the emotional qualities of the student-teacher relationship (Fried, Mansfield, & Dobozy, 2015; Uitto, Jokikokko, & Estola, 2015). Thus, it is not clear precisely how teachers' emotionally close and distant relationships with disruptive students differ, or what drives these differences. The emotionality of teaching has been widely researched, however, with teachers described as performing a kind of emotional labour (e.g. Isenbarger & Zembylas, 2006; O'Connor, 2008). Capacities for teachers to regulate their emotions (Hosotani & Imai-Matsumura, 2011; Sutton, 2005; Sutton, Mudrey-Camino, & Knight, 2009) and express empathy (Barr, 2011; Cross and Hong 2012; Jiang, Vauras, Volet, & Wang, 2016; Oplatka, 2007) are critical for effective classroom management and positive interactions with students (Jennings & Greenberg, 2009), and may therefore be important in promoting a close emotional bond with disruptive students. For example, teachers with strong empathic concern may be more motivated to assist disruptive students (Cross & Hong, 2012): perhaps expressing pity for these students, or sadness at their predicament. Alternatively, close relationships with disruptive students may instead be characterised by greater emotional complexity than distant relationships. For example, teachers who express confidence and efficacy may feel better equipped to meet various students' needs (Tsouloupas, et al., 2010): thus finding their work with disruptive students rewarding, despite frequent experiences of frustration (Isenbarger & Zembylas, 2008).

In addition to teachers own emotional reactions and responses, the way that teachers conceptualise disruptive behaviour may also guide their perceptions of disruptive students (Chang, 2009). Research typically describes disruptive student behaviour as a product of specific student risk factors, such as low socioeconomic status (e.g. Letourneau, Duffett-Leger, Levac, Watson, & Young-Morris, 2013), poor emotional support from teachers (Bru, Stephens, & Torsheim, 2002), or negative child-parent

attachment (e.g. Brook, Lee, Finch, & Brown, 2012). Drawing on self-determination theory, attachment theory, temperament research, and ecological systems theory, we provide four other possibilities for interpreting disruptive student behaviour. First, drawing on self-determination theory, we note that disruptive behaviour may be a reaction to innate psychological needs (e.g. for relatedness, autonomy and competence; Deci, Vallerand, Pelletier, & Ryan, 1991). Second, drawing on attachment theory, disruptive behaviour may serve particular attachment functions (e.g. maintaining proximity to an attachment figure). It may also be reflective of one's attachment history (Bowlby, 1969). Third, drawing on temperament research, disruptive behaviour may be associated with predispositions, such as effortful control and reactivity (Rothbart & Posner, 2005; Silva et al., 2011). Fourth, drawing on ecological systems theory, disruptive behaviour may stem from difficulties in other contextual systems, such as the home (Bronfenbrenner, 1979; Pianta & Walsh, 1996). While these explanations are not exclusive, and other possibilities exist, they nonetheless offer several different lenses through which to interpret student behaviour. We do not know how teachers themselves view this behaviour, however, or how these perceptions might facilitate closeness. In the present study we draw on teachers' own spontaneous reflections of their relationships with disruptive students, noting how the students' behaviours are discussed and what behavioural explanations are offered in both emotionally close and emotionally distant relationships.

### **1.1 The Present Study**

The present study adopts a phenomenological approach to address the paucity of research examining close relationships between elementary teachers and disruptive students. We began at the end of a school year with a broader sample of 51 Kindergarten and first grade students enrolled in 14 classes. Within this broader sample, we collected speech samples from multiple teachers about each student. We then coded for teachers' expressed closeness and expressed conflict, identifying eight disruptive students whose relationships we considered 'complicated': high in teacher expressions of both closeness and conflict.

The first objective of this study was to better understand the dynamics of these complicated relationships. Specifically, we aimed to determine the protective relational factors that would lend themselves to a close and supportive emotional bond in the face of relational conflict. Our second objective was to determine whether or not other

teachers in those same eight students' lives would also perceive their relationships with these students to be 'complicated'. Specifically, we aimed to determine whether particular disruptive students experience similarly close emotional bonds with all their teachers (a finding that would suggest protective student features or behaviours), or whether these close relationships were specific to particular teachers (a finding that would suggest protective teacher characteristics). To achieve these two objectives, we examined (i) how classroom teachers and support teachers (e.g. teacher librarians) each perceived their relationships with the nominated eight students at the end of the school year, and (ii) how new classroom teachers and support teachers each perceived their relationships with the same nominated eight students at the beginning of the next school year.

## **2. Method**

### **2.1 Participant Selection**

Participants were drawn from a broader study investigating the student-teacher relationships of 29 classroom teachers, 18 support teachers and 51 elementary students from three Australian government schools located in Sydney (see McGrath & Van Bergen, under review). We examined these relationships at two points in time: at the end of the school year (Phase 1) when students were enrolled in Kindergarten and first grade; and at the beginning of the next school year (Phase 2) when students were enrolled in first and second grade.

At each point in time, teachers were asked to provide five-minute speech samples about their relationships with the participating students (see Daley, Renyard, & Sonuga-Barke, 2005; Gottschalk & Gleser, 1969; Psychogiou, Daley, Thompson, & Sonuga-Barke, 2007). These speech samples were then coded for thematic expressions of closeness and conflict, ranging from very low (1) to very high (5). Closeness was indicated by statements showing liking, warmth or affection; evidence that the teacher and student communicated openly with one another; and detailed factual or interpersonal descriptions of students that suggested emotional interest or engagement in the students' life. Higher ratings of closeness were given to speech samples that included all three indicators (liking, communication openness, and detail). Conflict was indicated by perceived student negativity, anger, and unpredictability. Higher ratings of conflict were given for speech samples that included multiple explicit references to

students' interactional behaviours that were considered problematic and expressed with a negative tone. To determine the reliability of the coding scheme across different coders, intraclass correlations coefficients were computed for 16% of speech samples. These intraclass correlations indicated good reliability for both closeness .819 ( $p = <.0005$ ), and conflict .992 ( $p = <.0005$ ).

To provide a more nuanced characterisation of the depicted student-teacher relationships, drawing on both the closeness and the conflict dimensions, we then performed a double bisection of the data. First, we organised ratings of expressed closeness into two groups: low (ratings of 1-3) and high (ratings of 4-5). Next we did the same for expressed conflict<sup>1</sup>. As shown in Figure 1, overlaying these new bisected dimensions enabled us to categorise each relationship into one of four relationship quadrants: positive (high closeness, low conflict), complicated (high closeness, high conflict), reserved (low closeness, low conflict), and negative (low closeness, high conflict). Our categorisation of classroom teachers' relationships with students at Phase 1 identified 21 positive relationships (31.2%), 8 complicated relationships (15.7%), 13 reserved relationships (25.5%), and 9 negative relationships (17.6%).

Finally, to investigate the characteristics of student-teacher relationships that were rated high in both closeness and conflict, we selected the eight 'complicated' relationships from our sample of classroom teachers at Phase 1<sup>2</sup>. The students in these relationships included one male and two female Kindergarten students (Joey, Monica, and Rachel) and five male first grade students (Alfred, Ross, Jeremy, Chandler, and Bruce). To compare how different teachers perceived their relationships with those same students, we broadened our selection to include other teachers from our original

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<sup>1</sup> We included moderate (3) ratings in the "low" conflict/closeness categories and not the "high" conflict/closeness categories for two reasons. First, moderate levels of misbehaviour and conflict in the classroom were not rated as problematic and somewhat common: particularly in younger grades when students' regulatory abilities are still developing (Cole, Martin, & Dennis, 2004). We therefore restricted our categorisation of "high" conflict to those with high or very high ratings. Second, we saw moderate ratings of closeness to be "lukewarm", with genuinely close relationships instead rated high or very high. In determining the relationship factors that best predict closeness as a protective factor, we were keen to ensure that closeness was unequivocal.

<sup>2</sup> We selected our eight complicated cases on the basis of classroom teachers' relationship expressions at Phase 1, because (i) classroom teachers experienced greater face-to-face contact than did support teachers, and (ii) speech samples obtained at Phase 1 described relationships that had formed over an entire school year.

sample in each phase of our study (Phase 1, Phase 2) who also provided speech samples about their relationships with those same eight students (see Table 1). In total, 32 speech samples were included for analysis.

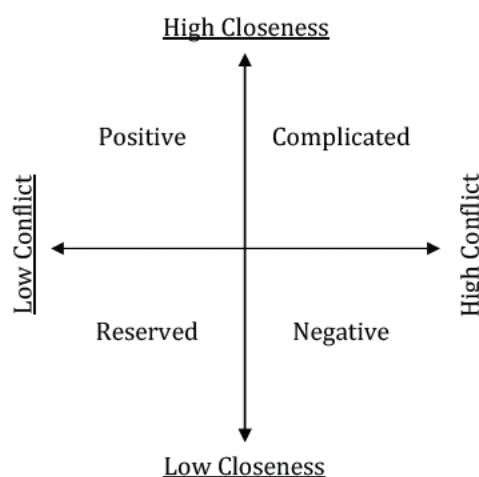


Figure 1. Four-quadrant model of student-teacher relationships created by bisecting ratings of closeness and conflict.

## 2.2 Participants

Participants included eleven classroom teachers and seven support teachers who each spoke about their relationships with eight students (those identified as having complicated relationships with their classroom teachers in Phase 1). Classroom teachers included two Kindergarten teachers (Mrs Green, Mrs Lavender), five first grade teachers (Mr Blue, Mr Red, Mrs Maroon, Mrs Amber, Mrs Purple), and five second grade teachers (Mrs Lavender<sup>3</sup>, Mrs Brown, Mrs Silver, Mrs Fern, Mrs Mauve), and had between 2-30 years teaching experience ( $M = 12.27$ ,  $SD = 10.72$ ). Support teachers included three teacher librarians (Mrs Coral, Mrs Fuchsia, Mrs Aqua), two relief teachers (Mrs Yellow, Mrs Jade), one sports teacher (Mrs Plum), and one foreign language teacher (Mrs Ruby), and had between 1-35 years teaching experience ( $M = 15.57$ ,  $SD = 11.77$ ).

<sup>3</sup> Mrs Lavender transitioned to become a second grade teacher in Phase 2.

Table 1. Participants Grouped by Relationships with Selected Students

Student	Phase 1			Phase 2	
	Classroom Teacher (Relationship Type)	Support Teacher (Relationship Type)	Classroom Teacher (Relationship Type)	Support Teacher (Relationship Type)	
Monica	Mrs Green (Complicated)	Mrs Yellow (Negative)	Mr Blue (Negative)	Mrs Yellow (Negative)	
Joey	Mrs Green (Complicated)	Mrs Yellow (Negative) <sup>a</sup>	Mr Blue (Positive)	Mrs Yellow (Positive)	
Alfred	Mrs Maroon (Complicated)	Mrs Coral (Positive)	Mrs Lavender (Reserved) <sup>ab</sup>	Mrs Coral (Complicated)	
Ross	Mrs Maroon (Complicated)	Mrs Coral (Complicated)	Mrs Brown (Complicated)	Mrs Coral (Negative) <sup>a</sup>	
Jeremy	Mrs Amber (Complicated)	Mrs Yellow (Complicated)	Mrs Silver (Reserved)	Mrs Plum (Reserved)	
Chandler	Mr Blue (Complicated)	Mrs Yellow (Complicated)	Mrs Fern (Negative) <sup>a</sup>	Mrs Fuchsia (Complicated)	
Rachel	Mrs Lavender (Complicated)	Mrs Jade (Negative)	Mrs Purple (Negative) <sup>a</sup>	Mrs Coral (Reserved) <sup>ab</sup>	
Bruce	Mr Red (Complicated)	Mrs Ruby (Reserved) <sup>ab</sup>	Mrs Mauve (Reserved) <sup>ab</sup>	Mrs Aqua (Positive) <sup>b</sup>	

*Note.* <sup>a</sup> Shows relationships that scored moderate (3) for ratings of closeness. <sup>b</sup> Shows relationships that scored moderate (3) for ratings of conflict. In all other cases closeness and conflict were above or below 3.

### 2.3 Measure

As above, we asked each teacher to provide a five-minute speech sample in which they discussed the nominated student. The five minute speech sample (FMSS) task is typically used in developmental and clinical psychology to elicit verbal content about another person: typically one's own child, but more recently also school children in classroom environments (Daley, Sonuga-Barke, & Thompson, 2003; Daley, et al., 2005; Psychogiou, et al., 2007; see Gottschalk & Gleser, 1969, for initial use). This verbal content is typically then rated for participants' expressed emotion when speaking about the specific relationship. To elicit speech, teachers were given the following standard instructions: "Can you tell me about (student's name)? I'd like you to speak for five minutes telling me what kind of a person (student's name) is and how the two of you get along together". These instructions were repeated for each of the participating students that they taught. During the speech sample task, the researcher did not provide any additional prompts.

### 2.4 Analysis

Because we did not know what characteristics the speech samples of complicated relationships might share, relative to the speech samples from other relationship styles, we conducted an inductive thematic analysis (Braun & Clarke, 2006; see also Hsieh & Shannon, 2005). This allowed us to reduce the 32 speech samples into core themes. First, we entered the speech sample transcripts in NVivo and categorised them in two ways: under the names of the eight disruptive students; and by relationship classification (positive, complicated, reserved, negative). The transcripts were read and re-read several times. Second, using speech samples grouped by students' names, we coded the focus of each statement made. Statements included: character descriptions (positive, neutral and negative), comments about intelligence, comments about student behaviour, emotive comments, anecdotes, explanations for disruptive behaviour (family/home, school, student), and quality of relationship statements. Third, we created reconceptualised cases by using these codes to write descriptions of each students' relationship pattern, including quotes from each speech sample. While these reconceptualised cases allowed us to examine the consistency of relationship types, they did not reduce the data further. Therefore, grouping speech samples by relationship classification, we created additional codes specific to each relationship type. We coded for evidence of teacher compassion or empathy, teacher emotion

regulation, and teacher emotional perspective taking (awareness of student emotions and emotion causes); references to student charisma, student sense of humour, and student remorse; statements showing tolerance of behaviour, classroom management, and communication openness; behavioural attributions; and for references to attachment behaviour. Finally, we compared our coding across relationship types (positive, complicated, reserved, negative) and collapsed related codes under broader categories.

### 3. Findings

Our initial classification of teachers' speech samples indicated a range of relationship perceptions regarding the same students. From a total of 32 speech samples about the eight nominated disruptive students, four were classified as positive, fourteen were classified as complicated<sup>4</sup>, six were classified as reserved, and eight were classified as negative (Table 1). We were particularly interested in the speech samples that indicated a complicated relationship, with high closeness despite high conflict.

We present our findings in two parts. First, we examine the common themes occurring across complicated relationship speech samples. Our analysis was guided by the central question: what relational characteristics enabled high closeness with these disruptive students? Second, we consider the consistency of expressed relationship quality across different teachers. Given that multiple teachers each spoke about their relationships with the same eight disruptive students, we were interested to know whether the students who experienced a close relationship with their classroom teachers in Phase 1 will also experience a close relationship with other teachers in Phase 1 and 2.

#### 3.1 Characteristics of Complicated Relationships

Based on our inductive thematic coding and analysis we identified two key characteristics of complicated relationships. First, teachers in complicated relationships were more likely than teachers in other relationships to attribute students' disruptive behaviour to uncontrollable or mitigating causes. Second, teachers in complicated

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<sup>4</sup> This includes classroom teacher classifications at Phase 1 (in which we intentionally selected the eight complicated relationships from our broader sample). Over and above these initial classifications, a further six complicated relationships were found.



relationships were more likely to display emotional competence in the way they discussed those students. We discuss each characteristic in turn below.

**3.1.1 Teacher attributions of disruptive behaviour.** Complicated speech samples were characterised by statements that provided evidence of explicit reflection on the causes of the students' behaviour. Teachers' perceptions of disruptive behaviour inform their emotional experience, with anger aroused by events that are perceived as controllable (Chang, 2009). The corollary, then, is that teachers who perceive students' disruptive behaviours as a consequence of developmental, temperamental, or ecological factors may be more likely to foster closeness with those students. Although teachers in the present study were not asked to explain why the nominated students behaved disruptively, our analysis revealed that teachers with complicated relationships were nonetheless more likely to spontaneously reflect on the potential causes of this behaviour. More specifically, rather than simply describing students' disruptions or expressing frustration, these teachers consciously attributed disruptive behaviour to factors beyond students' control.

Internal (to the student) causal attributions offered by teachers in complicated relationships included: students' personality, hyperactivity, poor self-regulation, being tired, and poor eyesight. In many cases, teachers who made internal causal attributions described several possible causes at once, and also stated that they were still seeking possible alternative explanations. While one teacher attempted to better understand the causes of a student's disruptive behaviour by speaking with the student directly (Mrs Brown), for example, two classroom teachers (Mrs Green, Mr Red) explained that they had referred students to other experts (e.g. psychologists, behavioural optometrists) in an attempt to better understand and manage their disruptive behaviour.

...first of all we looked at whether he was hearing properly, we've had that tested and then we looked at his eyes tested in as a result of that he is now wearing glasses and the behavioural optometrist found some other issues which are ongoing... (Mrs Green speaking about Joey)

Teachers in complicated relationships also gave external causal attributions for students' disruptive behaviour relating to students' home-lives, namely: being an only

child, having parents who are going through a divorce, and having parents with suspected drug addictions. For example:

...things between mum and dad are not always good. Some issues with drugs, I think. With smoking cannabis, I think. A few things there, late nights, not great nutrition, not great diet, a few things like that so he's had a lot to contend with. (Mr Red speaking about Bruce).

They had a bit of a custody battle with him, so he's been struggling with that (Mrs Maroon speaking about Ross).

Finally, one teacher (Mrs Amber) described school-related factors as a potential external cause of disruptive behaviour. In her speech sample about Jeremy, Mrs Amber stated:

I put it down to myself getting used to the class size and not having individual attention as much ... if I gave him bit of boundaries and reacted more quickly to him misbehaving, it may have been of more assistance to him.

Teachers' reflections on the causes of students' disruptive behaviour were frequently supported by statements suggesting forgiveness. Because the teachers saw the students' behaviour as being either partially or completely beyond the students' control, they were more likely to retain affection for those students. Such statements included: "that's just his nature" (Mrs Maroon speaking about Alfred), "he really means well" (Mrs Brown speaking about Ross), "I have a bit of a soft spot for him despite him being naughty" (Mr Blue speaking about Chandler), "he's unintentionally naughty" (Mrs Yellow speaking about Chandler), "he's totally unaware of it until you remind him" (Mrs Coral speaking about Chandler), "he's trying so hard to do the right thing" (Mrs Amber speaking about Jeremy), and "[she really just wants to please" (Mrs Lavender speaking about Rachel).

Interestingly, teachers in other relationship types (positive, reserved, and negative) rarely provided causal attributions for their students' behaviour. While this may not be surprising for positive and reserved speech samples, which reflect

relationships already low in conflict, the lack of such insights in negative relationships is perhaps more concerning. Rather than reflecting on causes of disruptive behaviour, some teachers in negative relationships simply described the students' behaviour or recalled examples of misbehaviour. For example, when speaking about Rachel, Mrs Purple (negative relationship) stated:

She borrowed a ball and got into trouble with it because she was bashing a kid in the head with it. Then, the next day after being told, 'No, you're not having the ball anymore,' she just asked again. Yeah, those kinds of things are a bit of a concern.

Because teachers in negative relationships did not typically make attributions about the causes of disruptive behaviour, they were also less likely than teachers in complicated relationships to offer potential solutions. Instead, in addition to describing students' behaviour, these teachers typically used the speech sample to express frustration. This difference between relationship types was apparent even when talking about the same student. For example, whilst Mrs Green (complicated relationship) described suggesting dietary changes to help manage Monica's hyperactivity, Mr Blue (negative relationship) and Mrs Yellow (negative relationship) were less constructive:

...in terms of my relationship with her, I would—the class seems to gel a lot better when she's not there. ... the word that keeps coming off in my mind is 'annoying' (Mr Blue)

I find her very challenging and I find it difficult to speak fondly of her. So, I think she's a brat basically (Mrs Yellow)

**3.1.2 Teachers' emotional competence.** Complicated speech samples were also characterised by statements that provided evidence for teachers' emotional competence. First, speech samples from teachers in complicated relationships typically indicated an awareness of their own positive and negative emotions when engaging with the student. Second, speech samples from teachers in complicated relationships frequently included reference to emotion regulation processes that they used to

maintain closeness with the student. Third, speech samples from teachers in complicated relationships typically indicated a tendency towards emotional perspective taking to better understand the students' emotions (e.g. perceiving students as being remorseful when in trouble). Across all three instances, evidence of teachers' emotional competence was often embedded within examples of caregiving behaviour. For example, the speech samples of teachers in complicated relationships suggested that they were particularly concerned about the emotional wellbeing of their disruptive students.

Evidence of teachers' emotional awareness, emotion regulation, and emotional perspective taking can be seen across three different speech sample excerpts about Ross. In the first excerpt Ross's first grade teacher, Mrs Maroon recalled how a particular incident made her feel:

I was off sick, I think, last term for a few days, and he didn't like the teacher he had so he just up and climbed the fence and went home. And I was very worried when I came back and found that. But I talked to him about the situation and he said that he just bolted because he didn't like the teacher and missed me. So it kind of made me feel good, but I had to talk about why you don't do those things, you don't just leave the school, and you had to cross main roads to get home, and going through quite a bit of trouble.

The above excerpt suggests that a strong emotional bond exists between Ross and Mrs Maroon. Ross's reaction to an unfamiliar teacher appears to be in response to the perceived loss of a valued caregiver: Mrs Maroon (Bowlby, 1980). In this instance Ross's attachment behaviour system became active and he went home; perhaps seeking comfort and reassurance from a parent, or perhaps believing that rejecting the substitute teacher would cause Mrs Maroon to return: thus protecting his relationship with Mrs Maroon (Bowlby, 1969). Mrs Maroon's emotional and behavioural response appears to affirm this bond, and is indicative of caregiving behaviour (Bowlby, 1969); Mrs Maroon was concerned for the wellbeing of her student but also felt good about the reason given for his actions. Rather than disciplining Ross, Mrs Maroon confirms their relationship by explaining why his actions were dangerous, later explaining:

...if I talk to him one on one about his behaviour, he copes so much better than roaring at him in front of all the kids (Mrs Maroon speaking about Ross).

Consistent with this example from Mrs Maroon, similarly sensitive classroom management strategies was also shared by Mrs Green (speaking about Monica):

We will have a little talk and that has helped also to modify her behaviour so that she is socially able to cope and the other kids can cope with her.

Second, and in line with research investigating elementary teachers emotional regulation (Sutton, 2005; Sutton, Mudrey-Camino, & Knight, 2009), teachers in complicated relationships suggested that calmly speaking to these students about their behaviour was more effective than yelling or excluding the student from participating in other activities. They were therefore able to use information about students' emotional needs to guide the intensity of their own emotional displays. To react calmly, however, may not always be easy. In the second excerpt about Ross, his second grade teacher, Mrs Brown, highlights the challenge of emotion regulation whilst also providing further insights that may help explain Ross's adverse reaction to the substitute teacher:

...I know that the [his dad has just begun a new family as well, and I'm sure that would impact Ross as well, being seven witnessing mum and dad, maybe, having some animosity between them - his dad having a new family. So I think, that's always in the back of my mind in the classroom as well if he's doing the wrong thing. I always try and put myself into how a seven-year-old would be feeling about that situation, as well. 'Cause it's easy just to get cranky with him straight up, 'cause you're constantly trying to speak to him about following the rules and doing the right things, but at the end of the day you don't know what they go home and have to endure and experience. So I try and - I mean, I'm not like that all the time, sometimes it's really easy to just crack it sometimes, and you just like, 'Why aren't you doing the right thing?' or, 'I speak to you all the time about this!' But I think you've got to pull back sometimes, and I try and do that with Ross.

Mrs Brown uses cognitive reappraisal to regulate her emotions; considering Ross's difficult circumstances as a means to reduce the severity of her own emotional response (see Tsouloupas et al., 2010). That Mrs Brown would still sometimes become angry with Ross, however, supports the notion that teachers often find it easier to portray positive emotions than to regulate negative emotions (Sutton, Mudrey-Camino, & Knight, 2009). While teachers' emotion regulation is often discussed with reference to emotional labour (Isenbarger & Zembylas, 2006) – that is, teachers must conform to workplace rules – this example suggests that emotion regulation is also a type of caring behaviour (O'Connor, 2008). Mrs Brown considers that Ross's unfavourable behaviours may be associated with separation from a significant caregiver, and therefore justified. Indeed, attachment theory suggests that, for the young child, adverse behaviour is a normative response to perceived or actual separation from an attachment figure (Bowlby, 1973).

In this third excerpt about Ross, the school librarian, Mrs Coral, demonstrated a keen awareness of how Ross might feel when he had behaved disruptively. This emotional perspective taking in turn enabled Mrs Coral to express concern for Ross's emotional wellbeing:

He's a bit more, I wouldn't say he's depressed, but he's not as happy as other kids at the school, well that's the feeling that I get. ...And I have worried about him a little bit that way. I feel he puts a lot of pressure on himself to do the right thing, and then when he can't help himself, he really takes it badly.

Mrs Brown echoed these sentiments, suggesting: "He always seems to be quite remorseful... which makes me think he does care". Both Mrs Coral and Mrs Brown suggested that Ross was sorry when he had misbehaved; a perception that also emerged in several complicated speech samples about other students.

Everything is just such a great joy. And sometimes that gets him into trouble. I've seen him actually at events where he got so excited, he's jumped on people. But not because he wants to hurt them, he just can't control himself. ... And I've seen him get into trouble or get spoken to and he just gets crushed. It takes him a while to get over it (Mrs Coral speaking about Alfred).

...he can get a bit down fairly easily about things if they don't go his way... (Mrs Maroon speaking about Alfred)

...you would reprimand him and he'd be like, really genuinely sorry. And the big blue eyes and 'Aw sorry Mrs Yellow, I didn't mean to,' but with also a cheeky smile, like 'I didn't mean to but I'll definitely do it again,' which is kind of lovable even though it was maddening (Mrs Yellow speaking about Jeremy).

Interestingly, while the remorse experienced by Alfred and Ross was also associated with feelings of shame, Mrs Yellow's account of Jeremy suggests that his disruptive behaviour was deliberate. For teachers in complicated relationships to make such distinctions is important, as the correct appraisal of students' emotions enables them to make sound instructional decisions and to interact with those students successfully (Garner, 2010). Furthermore, the teachers did not use their appraisal of students' emotions to coddle the students or to shield them from the consequences of their behaviours. Rather, they were able to discuss the students' behaviour with them in a sensitive and developmentally appropriate way. After being asked to sign off on Chandler's behaviour plan, for example, Mrs Yellow explained:

...often he hasn't been good. ...I'll say at the end of the day, 'Well, what do you think on that?' And he goes, 'Not really Mrs Yellow, but do you think you could sign it anyway, because we love each other?'. And I'll have to say 'no' and he goes, 'Oh, okay. I understand.' And he does understand that he's done the wrong thing.

While Mrs Yellow was able to use her perspective taking abilities to respond sensitively to Chandler, the statement "because we love each other" also suggests a reciprocal loving relationship. Whilst some teachers in past research have expressed feelings of love towards their students (e.g. Oplatka, 2007), the example of dialogue provided by Mrs Yellow suggests that some students too may express feelings of love for their teachers. Evidence from students' drawings of their relationships with teachers appears to support this possibility (see McGrath, Van Bergen, & Sweller, under review). It is

therefore possible that disruptive students who express love toward their teachers, such as Chandler, are treated more favourably than those who do not.

Interestingly, teachers' perspective taking was strongest when they felt some connection to the student. This was particularly the case when the teachers' perceptions were informed by their own familial experiences (Cross & Hong, 2012; Jiang, Vauras, Volet, & Wang, 2016), as they were for Mrs Green and Mrs Lavender. Mrs Lavender, for example, expressed empathy with Rachel due to what she suspected was a difficult family environment:

I don't know if she's got issues in her background, I think she might. I probably associate myself a lot with her in my own personal issues and so I find that she really loves to be – she really loves the closeness.

Similar to Mrs Lavender, Mrs Green explained that her understanding of Joey's emotional experiences was informed by her own experiences as a mother of three sons. This, she believed, made it easier for her to relate to Joey and in turn informed her own emotional regulation:

I'm very, very aware with Joey of how I react to his behaviour. I've tried to make things as successful and positive and meaningful for Joey as I possibly could which has sometimes been exhausting...

Past research highlights the emotional exhaustion that teachers may feel when they more frequently experience negative emotions such as anger in the classroom (Change, 2009; 2013). Interestingly, Mrs Green's comments suggest that regulating her emotions to foster positive experiences for Joey was also exhausting. Although it is not clear in her speech sample, it is possible that Mrs Green was regulating her emotion by using expressive suppression: hiding true emotions to avoid negative outcomes (Tsouloupas, et al., 2010). In this instance, the perceived need for Joey to feel happy at school appears to override Mrs Green's exhaustion.

Across these speech samples we see evidence of teachers' awareness of their own emotional responses, their use of emotion regulation to foster positive classroom experiences and their use of perspective taking to better understand student emotions.



These emotional competencies appeared critical for teacher caregiving behaviour, with those who expressed greater emotional competence also more likely to feel concerned for the student and to report reaffirming a relationship after being separated. Such qualities support the notion that elementary student-teacher relationships might share similar functions to those of other attachment relationships (Riley, 2011). However, while many elementary teachers consider emotional competence an important part for their work (Oplatka, 2007), these qualities were only evident in complicated relationship speech samples. In some cases, these same teachers did not express emotional competence or caregiving behaviour when speaking about other students. We therefore examine the consistency of expressed relationship quality below.

### **3.2 Consistency of Relationship Quality**

While greater between-teacher variability has been found in relational closeness than conflict across the school years (Jerome, Hamre, & Pianta, 2009; Pianta, Steinberg, & Rollins, 1995 Pianta & Stuhlman, 2004), the extended narrative nature of the collected speech samples allowed individual differences in expressed relational quality to be examined more closely. Our initial classification of speech samples showed that our eight nominated students, selected on the basis of their complicated relationships with classroom teachers in Phase 1, did not typically have consistent relationship styles with their teachers. In all eight cases, variations in either conflict or closeness with different teachers were observed. Regarding Joey, for example, a decrease in relational conflict was observed between Phase 1 and Phase 2. Joey had a complicated relationship with his classroom teacher in Phase 1, indicating high closeness and conflict, and a negative relationship with his support teacher. In Phase 2, however, he experienced positive relationships with both types of teachers. As Mr Blue (Phase 2 classroom teacher) stated:

I've heard stories of him being a horror child ...and that is not the case with me at all. He is rarely in trouble, no more than any other boy or girl.

Mrs Yellow (Phase 1 and 2 support teacher), who had expressed a negative relationship with Joey the previous year, suggested that this change in relational conflict was due to changes in Joey's own behaviour:

Last year, he was so enormously challenging and he had so many issues and I despaired. ...But something has come over him. ...whenever I go into Mr Blue's classroom, he's sitting down and he's writing, he's doing his work.

At an individual case level, it is unclear why these changes in Joey's behaviour might occur between Phase 1 and 2. It is possible that the closeness Joey experienced with his classroom teacher in Phase 1 conferred some protective advantage leading to less student-teacher conflict over time. Such an effect was not seen with Monica, however. Despite forming relationships with the same teachers as Joey, Monica's relationships evidenced continued disruptive behaviour and a decline in relational closeness. Alternatively, Joey may have experienced changes in his external ecological context that led to better behaviour in Phase 2 than Phase 1. Irrespective of the reasons for this change, we nonetheless note that closeness typically varied to a greater extent than conflict.

Disruptive students experienced strong variation in relational closeness between different teachers, with suggestions that gender may play a role. Whilst each of the six boys in the nominated sample had two or more teachers that expressed having close relationships with them (i.e. either positive or complicated relationships), only the original Phase 1 classroom teachers expressed a high level of relational closeness with Rachel and Monica. In addition, five of the eight relationships classified as negative in the sample were about these two girls. For example, while Mrs Lavender (Phase 1 classroom teacher) hoped that Rachel would be placed with a nurturing teacher the following year, Mrs Purple (Phase 2 classroom teacher) expressed a negative relationship with Rachel and appeared unsympathetic toward her:

I worry about her for next year, where she goes and try to make sure that she's not with someone who's too harsh on her. She does have a tendency to annoy other teachers. I think 'cause she's high demand but – so I do worry about where she's placed for next year and possibly along the line. Because I think, she needs a nurturing type of person to be with her (Mrs Lavender).

I'm not sure what her home life's like, but she doesn't appear to be well looked after. Her speech is very immature and also she has very poor grammar ... but

listening to mum speak to her, I think, 'Well, I know where that comes from' (Mrs Purple).

Although little is known about the within-teacher variability of student-teacher relationship quality over time, research investigating teachers' emotions shows how enjoyment and anger vary depending on the entire class of students taught (Frenzel, Becker-Kurz, Pekrun, & Goetz, 2015). As students transition to new classes at the beginning of the school year, therefore, even those who keep the same classroom or support teachers may experience variation in the emotional quality of the relationship. In some cases, relational closeness may also increase throughout a school year (Fumoto, Hargreaves, & Maxwell, 2007; Newberry, 2010; however, see also Doumen, Koomen, Buyse, Wouters, & Verschueren, 2012), raising the possibility that expressed relational closeness may yet improve across the year for students such as Rachel and Monica. Together these possibilities highlight ways in which teachers' relationships with the same student may change over time. However, they do not explain our observed gender difference in relationship consistency.

Given the small number of participants in this qualitative study, it is possible that the negative relationships encountered by Rachel and Monica occurred predominantly by chance. Thus, there may be no systematic differences in the closeness experienced by boys and girls. Given that boys are more frequently identified as disruptive than girls (Beaman, Wheldall, & Kemp, 2007), however, it may also be that teachers found it more difficult to reflect of the causes of the girls' disruptive behaviours. Specifically, while boys' disruptive behaviour is sometimes seen as normative (Beaman et al., 2007), girls' disruptive behaviour may be seen as more unusual, troublesome or devious. As a result, teachers may be less likely to express relational closeness with disruptive girls. Further research examining gender differences in closeness is required to examine these possibilities.

#### **4. Discussion**

In the present study, eighteen elementary teachers spoke about their relationships with eight disruptive students. Of particular interest were speech samples that expressed high levels of both closeness to, and conflict with, those students. We characterised these as 'complicated' relationships. Analysing those speech samples, we

identified two characteristics that may facilitate relational closeness despite the presence of student-teacher conflict. First, our findings indicated that the teachers who expressed close relationships with disruptive students were more likely to reflect on the potential causes of these students' unfavourable behaviours, often attributing disruptive behaviour to factors beyond the students' control. Second, our findings indicated that close relationships with disruptive students were guided by teachers' emotional competence. Teachers who were more aware of students' emotions, who expressed empathy, and who used this information for effective classroom management, were more likely to express greater relational closeness towards disruptive students. Given the role of teacher attributions and emotion competence in determining closeness, it is perhaps not surprising that a range of different relationship styles, when different teachers spoke about the same students, was observed.

Our finding that complicated speech samples included spontaneous reflections on the causes of students' disruptive behaviour suggests that an attitude of reflexivity may facilitate relational closeness. Although a more immediate concern for teachers is the management of disruptive behaviour as it occurs, understanding the causes of such behaviour allows teachers to sympathise with the student; particularly if, like Mrs Amber, they attribute disruptive behaviour to school-related factors (Poulou & Norwich, 2000). Similar to the causes identified by other teachers in our sample, findings from Mavropoulou and Padelidu (2002), suggest that elementary teachers are more likely to attribute disruptive behaviour to family and student-related factors than to school-related factors. Unlike other research, however, teachers in the present study were not asked to provide such explanations. In this instance, the spontaneous inclusion of causal attributions for students' disruptive behaviours is perhaps, more likely to reflect these teachers' internal representations of the relationship.

Understanding teachers' causal attributions for disruptive behaviour is important, as these attributions may guide teachers' reactions and recommendations. For example, teachers who attribute students' learning and behavioural problems to home-factors are more likely to suggest parental involvement to address problematic behaviour (Soodak & Podell, 1994). Regardless of attributions, however, experienced teachers appear to be more likely to seek the assistance of specific specialists (Hughes, Barker, Kemenoff, & Hart, 1993). Within our sample we note that Mr Red and Mrs Green, who had both reported referring students to specialists, had 30 and 20 years of

teaching experience respectively. Nonetheless, where causes for disruptive behaviour are unknown, teachers are less likely to consider referring students to specialists and more likely to refer a student to special education settings (Mavropoulou & Padelia, 2002). Thus, while findings from Pianta, Steinberg and Rollins (1995) indicate that relational closeness might protect students from referral, our findings regarding teacher attributions offer one possible explanation for this effect.

Given the important role that teachers' causal attributions may play in determining the kinds of support and assistance offered to students, our findings of inconsistency in expressed relationship quality are troubling. Specifically, while teachers in complicated relationships were more likely to attribute students' disruptive behaviour to factors beyond their control, all eight students (and particularly the two girls) remained at risk of experiencing negative relationships with other teachers. The risk of a negative relationship may be compounded, with relatively few students returning to mainstream schooling post-referral (Graham, Sweller, & Van Bergen, 2010). Although students that are referred report having happier relationships with teachers in special education settings, these students nonetheless report wanting to return to mainstream schooling (Graham, Van Bergen, & Sweller, 2016).

In addition to identifying spontaneous causal attributions, the present study provides evidence of how teachers' emotional competence may serve to facilitate close relationships with disruptive students. Focusing specifically on 'complicated' speech samples, we found that teachers who expressed close relationships with disruptive students also demonstrated emotional perspective-taking, empathy, and emotion regulation. These characteristics are likely to be particularly helpful when forming relationships with disruptive students by guiding effective classroom management (Garner, 2010), and supporting a positive classroom climate (Jennings & Greenberg, 2009). Engaging in emotional perspective taking, for example, allows teachers to react appropriately to disruptive behaviour (Barr, 2011). According to the teachers in the present study, students responded more favourably if they calmly spoke to them about their inappropriate behaviour. Although regulating their own emotions to achieve this was sometimes difficult, such emotion regulation is important given that students' own emotions are strongly influenced by their teachers' emotions and instructional behaviour (Becker, Goetz, Morger, & Ranellucci, 2014).

#### **4.1 Limitations**

While the present study extends existing knowledge to consider spontaneous causal attributions and emotional competence as important characteristics of close relationships with disruptive elementary students, it is limited in three key ways. First, while we offered insight into the ways that teachers represent their relationships with disruptive students, we do not know how the information in these speech samples translates to actual classroom behaviour.

Second, while we consider student-teacher relationships with two different types of elementary teachers (classroom and support), we do not know how other teacher-related characteristics may influence our findings. For example, teachers' emotional competence may differ according to teachers' ethnicity or cultural values (Garner, 2010), student-teacher interpersonal behaviour may be driven by teachers' personalities (Fisher, Kent, & Fraser, 1998), and teachers with secure attachment histories (Kesner, 2000) or greater self-efficacy (Hamre, Pianta, Downer, & Mashburn, 2008; O'Connor, 2010) may also perceive closer, less conflictual relationships with students. Likewise, teachers' attributions of student behaviour may differ based on teacher characteristics such as gender or ethnicity. Large-scale cohort studies are required to investigate these possibilities.

Last, while we note the inconsistency in relational closeness across different student-teacher relationships, we are unable to pinpoint whether this inconsistency is a feature of the specific teacher or the time of testing. While Phase 1 data was collected at the end of the school year, giving teachers a full year to form causal attributions and emotional impressions of each disruptive student, Phase 2 data was collected at the beginning of the next year. It is therefore possible that spontaneous causal attributions and evidence of emotional competence might feature in speech samples obtained from Phase 2 teachers later in the school year: thus suggesting an important role for time. To disentangle the role of teacher individual differences from time, we suggest cross-sequential research be conducted with multiple instances of data collection in each school year.

#### **5. Conclusion**

While relationships with disruptive students are typically characterized by conflict (Birch & Ladd, 1998; Henricsson & Rydell, 2004; Murray & Murray, 2004;

Murray & Zvoch, 2011), the present study examined a small sample of relationships with disruptive students that were characterized by both conflict *and* closeness. The use of teachers' speech samples provided a unique source of information about student-teacher relationship quality that had not been previously considered for qualitative analysis. Investigating these 'complicated' relationship speech samples we find evidence of spontaneous causal attributions and teachers' emotional competence. We suggest that the high levels of expressed relational closeness are associated with teachers' causal attributions and emotional competence. To date, interventions aimed at improving the quality of student-teacher relationships have focused on interactions between teachers and students (see Sabol & Pianta, 2012), such as increasing teacher praise and communication (Murray & Malmgren, 2005). Alternatively, some interventions have focused on perspective taking. For example, teachers who are asked to label students' emotions during joint-activity tasks show improved student-teacher closeness (e.g. Driscoll, Wang, Mashburn, & Pianta, 2011). To date, however, no interventions have encouraged teachers to consider the causes of student misbehaviour at a broader contextual level. Based on the findings of the present study we suggest that interventions aimed at improving student-teacher closeness extend their focus to (i) address other aspects of teachers' emotional competence, such as emotion regulation, and (ii) address teachers' casual attributions for student disruptive behaviour. Doing so may not only facilitate relationships with teachers that support disruptive students' emotional wellbeing, but also protect teachers from the emotional exhaustion related to managing student misbehaviour.

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## **Chapter 7: General Discussion and Conclusion**

This thesis examined how students and their teachers each perceived the emotional quality of the student-teacher relationship in the first three years of elementary school. This thesis builds on previous research showing that teachers' relationships with disruptive students are typically characterized by conflict (Henricsson & Rydell, 2004; Murray & Murray, 2004; see Article I), and that student misbehaviour elicits negative emotions in teachers (Hagenauer et al., 2015; Sutton & Wheatley, 2003). Thus, the specific focus is on the emotional qualities of the student-teacher relationship, as perceived by both disruptive students and their teachers. First, classroom teachers were asked to nominate students who were particularly disruptive and students who were well behaved. Next, and working across two phases, students and their teachers completed tasks designed to capture their internal psychological states while reflecting on their relationships: students completed a drawing task, and teachers completed a Five Minute Speech Sample task.

In Article II, I examined how disruptive and well behaved students represented the emotional quality of their relationships with teachers. Given that teachers more frequently identify boys than girls as disruptive (Beaman, Wheldall, & Kemp, 2007), student gender was also included in the analyses. While disruptive and well behaved students did not differ in the way they represented their relationships with teachers, significant gender differences emerged. Boys were more likely than girls to draw themselves with their teachers in ways that indicated emotional negativity, with greater distance between figures, negative facial expressions and unusual symbolism. These findings are consistent with past research reporting students' preferences (Koepke & Harkins, 2008; Mantzicopoulos & Neuharth-Pritcgett, 2003), and using similar drawing



tasks (Harrison, Clarke, & Ungerer, 2007), in which boys' relationships with their teachers are also found to be more negative than those of girls. The present findings also extend past research. While a possible explanation for the gender differences found in past research is that the boys who experience a poorer relationship with their teachers may also be more disruptive (see Articles I & II), the present study suggests that well behaved boys are also at risk of negative student-teacher relationships.

In Article III, I examined how teachers expressed the emotional quality of their relationships with those same students - nominated as being either disruptive or well behaved. Interestingly, an opposite pattern of effects to those noted above was observed. While student gender had initially been entered into the analysis along with behaviour, teachers did not express any emotional differences in their relationships with boys and girls. Because there were also no interactions between gender and other variables, gender was dropped from the analysis. As predicted, however, teachers *did* express greater emotional negativity when speaking about students who were nominated as being disruptive. From the teachers' perspective, it therefore appears that problematic behaviour influences the emotional quality of the relationship more so than student gender. As there was no interaction between behaviour and gender, it is unlikely that teachers' expressions were driven by stereotypical views of boys and girls (i.e. that boys are more problematic than girls). However, given that teachers' ratings of relationship quality typically show poorer relationships with boys (e.g. Troop-Gordon & Kopp, 2011; Wyrick & Rudasill, 2009), the non-significant result for students' gender is surprising.

Comparing the pattern of results across Articles II and III, it appears that student gender is important in determining young children's relationship representations, and disruptive student behaviour is important in determining teachers' expressed emotional and relational tone. These same results held for both classroom and support teachers,

and at two times of year: at the end of year when relationships were well established, and at the beginning of the next year when relationship perceptions had less time to form. While it is not possible to directly compare tasks, given that each captured perceptions of emotional quality in a different way, these findings nonetheless hint that the risk factors for an emotionally problematic relationship may differ between teachers and students, depending on both the task and the perspective being taken.

One possible explanation for the contrasting findings regarding students' disruptive behaviour, over and above possible task differences, lies in the way this behaviour is interpreted by students and teachers. Disruptive behavior was important for teachers' expressed emotion, but *not* in students' relationship representations.

As noted in Article II and above, classroom teachers were asked to nominate students who were disruptive or well behaved. It is not known, however, whether disruptive students themselves viewed their own behaviour as troublesome or not. It is possible that students nominated as disruptive did not view their own behaviour as being problematic, while boys more broadly may experience more negative attention from their teachers (Kesner, 2000). Teachers, on the other hand, were more likely to have experienced frustration, anger, or other negative emotions in response to disruptive student behaviour. Indeed, while Phase 1 classroom teachers had nominated the participating students on this basis, other teachers (who were not responsible for nominating students) also frequently commented both on their own and other teachers' experiences of disruption in the classroom. While teachers did not express greater emotional or relational negativity with boys, research in other domains shows how boys experience 'disproportional' amounts of reprimands for troublesome behaviour (Beaman, Wheldall, & Kemp, 2006) and that students perceive teachers as being less supportive of boys than girls (Hughes, Cavell, & Willson, 2001). Thus, students themselves may perceive boys as being less liked than girls, independent of the teachers

own perceptions. Further research is needed to examine how both teacher and student perceptions of behaviour influence relationship quality.

Interestingly, although teachers expressed greater emotional negativity when speaking about disruptive students, there was no difference in expressed relational closeness when speaking about disruptive and well behaved students. Considering the predictive and protective functions of the student-teacher relationship outlined in Article I, this finding may signal the possibility of improved behaviour. Indeed, a close relationship may serve to reduce disruptive student behaviour in subsequent years (e.g. Rudasill, Reio, Stipanovic, & Taylor, 2010; Silver et al., 2005). Because little is known about close relationships between teachers and disruptive students, I examined the characteristics of teachers' speech that facilitated relational closeness with eight disruptive students (Article IV). I found that teachers in complicated relationships (rated high in expressed conflict and closeness) were more likely to attribute students' disruptive behaviour to uncontrollable causes and to display emotional competence in the way they discussed those students. Thus, while teachers in complicated relationships may still express emotional negativity, they were also able to draw out positive aspects of these relationships, to regulate their negative emotions, and to cast their own emotional experiences aside and consider the causes of the students' difficulties.

Although the number of cases examined qualitatively was necessarily small, these findings provide researchers and educators interested in improving student-teacher closeness with two new foci. First, these findings suggest that interventions based on reattributions of disruptive behaviour may help guide effective classroom management. Second, the findings highlight the importance of scaffolding teachers' own emotion competencies. While past research highlights the difficulties of reducing student-teacher conflict (see Driscoll, Wang, Mashburn, & Pianta, 2011; Roorda,

Koomen, Thijs, & Oort, 2013), focusing teachers' attentions on their own attributions and emotional competence may offer an alternative means of promoting emotionally supportive student-teacher relationships (Garner, 2010; Sutton, Mudrey-Camino, & Knight, 2009).

## **7.1 Methodological Considerations**

The present study highlights how students and teachers perceive the emotional quality of their relationships. In interpreting the contributions of the study, however, there are several methodological considerations. These include the operationalisation of disruptive behaviour; the explicit focus on emotional quality, which lent itself to using student drawing and teacher speech sample tasks; and the use of a new coding scheme to determine conflict and closeness in these speech samples.

First, I note that the operationalisation of student disruptive behaviour differs from that in other studies investigating student-teacher relationship quality. I note in Article I the various ways that disruptive behaviour might emerge, including, for example, as difficult temperament (e.g. Griggs et al., 2009) and as externalising behaviour (Murray & Zvoch, 2011). Because I was interested in teachers' own perceptions of students, the selection of disruptive and well behaved students was based on nominations from their classroom teachers at the beginning of the study. Other studies have sometimes used teachers' ratings of students' behaviour, however, such as the Child Behavior Checklist (e.g. Murray & Greenberg, 2000; Murray & Malmgren, 2005; Pianta & Stuhlman, 2004) or Strengths and Difficulties Questionnaire (e.g. Hughes & Kwok, 2006; Wu, Hughes, & Kwok, 2010). The use of a standardized child behaviour measurement tool may have identified other students with challenging or externalizing behaviour too, even if they were not amongst the two students in the class that each teacher considered most disruptive. This might particularly be the case for students who have been formally diagnosed with emotional or behavioural difficulties. Such students

may be more aware of their own behaviour and, indeed, may already be undergoing counselling or treatment. This awareness may in turn drive differences in relationship perceptions that did not emerge in the current study.

Second, I highlight my focus on emotional quality. This manifested in the use of two measures that coded explicitly for various dimensions of emotion quality: the student drawing task and the teacher Five Minute Speech Sample task. It is important to remember, however, that research examining the student-teacher relationship has rarely compared teachers' expressive speech samples about boys and girls (or about disruptive and well behaved children), and that findings from teacher-report rating scales may not be directly comparable. For example, it is possible that when speaking about students in response to an open-ended prompt, student behaviour is a more prominent determinant of emotional and relational expressions than is student gender<sup>10</sup> (e.g. Khafi, Yates, & Sher-Censor, 2015). In contrast, when responding to predetermined rating scales, teachers may be more likely to differentiate their responses, reflecting gender bias. Specifically, teachers may be more inclined to make direct comparisons between boys and girls - rating relationships with all boys higher in conflict and lower in closeness. Supporting this possibility are findings that teachers rate boys' temperament

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<sup>10</sup> Whilst the Five Minute Speech Sample task is more frequently used with parents, few studies have compared parents' relationships with both sons and daughters. These studies typically investigate mothers' relationships with their sons (e.g. Calam & Peters 2006; Owen-Anderson, Bradley, & Zucker, 2010; Psychogiou, et al., 2007). The few studies that *do* examine parents' speech samples about both sons and daughters have not included the child's gender as a variable of interest in their analyses (see Daley, Sonuga-Barke, & Thompson, 2003; Magaña et al., 1986). Only one study to date has considered both child gender and behaviour using the Five Minute Speech Sample task with parents; finding significant gender differences for emotional over-involvement but not for other aspects of the relationship (Khafi, Yates, & Sher-Censor, 2015).

and educational competence more negatively than girls', particularly if the teacher is female (Mullola et al., 2012).

Caution must also be used when interpreting data based on single speech samples from each teacher about each student. For example, it may be that during a structured interview task, some teachers are more likely to filter their responses than if they were completing a rating task. The speech sample task required teachers to speak about each student in front of the experimenter, and may therefore be subject to greater social desirability demands. Notwithstanding these possibilities, the speech sample task also allowed data to be collected in ways not possible using teacher ratings or a limited number of observations. For example, it was common for teachers to verbally reflect on recent or prominent interactions with students during the speech sample task and use these as examples to express their perceived relationship quality. Because of the capacity for the speech sample task to elicit reflections, narratives, and memories in this way, it would be particularly useful for future research to compare teachers' ratings of student-teacher relationships (e.g. using the STRS) completed before and after a speech sample task.

Third, I highlight my use of a new coding scheme to determine expressed closeness and conflict in teachers' speech samples. In addition to investigating teachers' emotional tone, I analysed these same speech samples for evidence of relational tone using experimenter ratings of 1 (very low) to 5 (very high). Although teachers expressed greater conflict when speaking about disruptive students, no differences in expressed closeness were found. These findings contribute to the growing body of evidence using other methodologies that teachers can form close relationships with disruptive students, despite high conflict (Henricsson & Rydell, 2004; Howes, 2000; Murray & Murray 2004; Spilt & Koomen, 2009), and also despite emotional negativity (Article III).

## 7.2 Limitations

While this thesis makes several important contributions to the literature, the findings are nonetheless limited in a number of ways. Limitations specific to each of the previous three chapters are identified in Articles II-IV. In Article II, I consider that the low representation of girls nominated as being disruptive may have reduced the power available to detect possible interactions between behaviour and gender. Moreover, while this research is the first to use the Five Minute Speech Sample task to examine elementary teachers' emotional and relational tone when speaking about specific students, in Article III, I note the need for comparisons with teachers' ratings of relationship quality (e.g. the Student Teacher Relationship Scale or the Teacher-Student Relationship Inventory). A comparison of this kind would allow assessment of any potential differences in relational closeness and conflict when expressed voluntarily by teachers and when prompted on a standardized scale. Likewise, application of a *student* rating scale (e.g. the Relatedness Scale or the Network of Relationships Inventory. See also Koepke & Harkins, 2008) would allow associations between student ratings and their relationship representations in drawings to be determined. While it was beyond the scope of the current study to administer these additional tasks to students and teachers, with only limited time with each participant permitted, I recommend future research consider these associations. Finally, while I provide the first qualitative investigation of characteristics that may facilitate relational closeness with disruptive students in Article IV, it is not known how these characteristics translate to actual classroom behaviour.

In addition to the above limitations, which are each discussed in more detail in Articles II-IV, I note a further limitation of this thesis to be considered. Specifically, it was not possible to examine or co-vary all characteristics that might increase the risk of negative student-teacher relationships for students or teachers, including: student

ethnicity, students' family-income status, and teacher gender. In the current context, ethics protocols demanded that questions about ethnicity and family income not be asked of families unless these were the direct focus of the study. Thus, while it was possible to report the average socioeconomic score and the proportion of students from non-English speaking backgrounds in each school population, it was not possible to consider ethnicity and socioeconomic status at the individual student level. To minimize the effects of these variables on the findings I purposively sampled from three different regions in Sydney with variable socioeconomic advantage and ethnicity. Importantly, there were no differences in findings across these three regions. Nonetheless, it was not possible to capture relative differences in background between students within each region. While student background may not change the central findings of the study relating to student behaviour, it may offer a potential mitigating factor.

Similarly, while I focus on student behaviour and student gender, it was not possible to include teacher gender as only four male teachers participated. While limited research has considered the issue of teacher gender, Spilt, Koomen, and Jak (2012) find significant differences in teachers' ratings of closeness and conflict. Using the Student Teacher Relationship Scale, male teachers reported significantly more conflict in their relationships than did female teachers. While female teachers reported closer relationships with girls, male teachers reported similar closeness with both boys and girls. Comparisons between male and female teachers' verbal behaviour using the Five Minute Speech Sample may add further nuance to how male and female teachers each internalize their relationships with students.

### **7.3 Theoretical and Practical Implications**

Notwithstanding the limitations listed above, the findings reported in this thesis hold broader theoretical and practical implications for researchers and educators. First, these findings advance current conceptualisations of the student-teacher relationship to



include emotional qualities. For example, students' representations of emotional distance and the presence of critical comments in teachers' speech may be used as indicators of relationships that require intervention. The measures used also contribute to the conceptualisation of students' and teachers' internal working models. For example, child-family drawings and speech samples provided by parents have each been associated with attachment history (Fury et al., 1997; Jacobsen, Hibbs, & Ziegenhain, 2000). Applying these measures in a school context allows further comparisons between child-parent attachment and student-teacher attachment to be made.

Second, the findings inform future interventions in several ways. Over and above findings relating to student behaviour and gender, for example, two additional characteristics were found to influence elementary student-teacher relationship quality: teacher type (classroom and support) and time of year. Taken together these findings have important implications. In the case of teacher type, there is the possibility of building strong relationships between disruptive students and their support teachers. While results from both students' drawings and teachers' speech samples suggest that student-teacher relationships with elementary classroom teachers are more emotionally intense than relationships with support teachers, elementary support teachers may nonetheless provide an important avenue for academic support. Indeed, as for classroom teachers, some support teachers were also able to form close relationships with disruptive students (see Article IV). I therefore highlight support teachers as a possible target for future relationship interventions and professional development.

In addition to examining teacher type, this thesis finds that relationships at the beginning of a school year appear to be particularly vulnerable. While students' drawings indicated greater emotional distance at the beginning of a school year, findings from teachers' speech samples suggest that markers of emotional negativity are quick to

emerge. Although collecting data about student-teacher relationships toward the end of a school year is likely to reflect well-formed relationship perceptions, opportunities to improve relationship quality at that point in time are limited. Interventions must therefore consider the processes of building and sustaining positive student-teacher relationships from the beginning of the year.

Finally, I highlight new directions for intervention and professional development content. Recent interventions for student-teacher relationship quality have focused predominantly on ways to enhance the quality of student-teacher interactions in the classroom (see Sabol & Pianta, 2012). I argue that interventions might also independently consider teachers' attributions for disruptive behaviour and emotional competence. Doing so is likely to not only assist teachers to make effective instructional decisions, but also to ensure that interactions between teachers and students take place in a positive classroom climate. Coupled with existing interventions, these new initiatives are likely to be particularly powerful.

## **7.4 Conclusion**

Contributing to an extensive body of research investigating the student-teacher relationship, this thesis finds evidence that in the first three years of elementary school, disruptive students represent the emotional quality of their relationships with teachers in similar ways to well behaved students. This differs to their teachers, however, who express a more negative emotional tone when speaking about these disruptive students. Nonetheless, expressed relational closeness did not differ when teachers spoke about disruptive and well behaved students; contributing to limited evidence that teachers can and do experience close relationships with disruptive students despite relational conflict and emotional negativity. Two characteristics emerged that facilitated this expressed relational closeness: teachers' spontaneous causal attributions for student behaviour, and their emotional competence. Although much research has already

investigated the student-teacher relationship, examining the emotional quality of these relationships offers the opportunity to extend our understanding to new constructs of relevance to disruptive students and their teachers. This thesis identifies exciting new avenues for future research and calls for investigations comparing teachers' ratings of relationship quality with expressed emotional and relational tone.

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## Appendices

### Appendix A. Macquarie University Ethics Approval



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#### Approved- Ethics application- Van Bergen (Ref: 5201200257)

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**Ethics Secretariat** <ethics.secretariat@mq.edu.au>

Tue, Jul 3, 2012 at 12:05 PM

To: Mr Kevin Francis McGrath <kevin.mcgrath@students.mq.edu.au>

Dear Dr Van Bergen

Re: "Exploring students' relationships with teachers" (Ethics Ref: 5201200257)

Thank you for your recent correspondence. Your response has addressed the issues raised by the Human Research Ethics Committee and you may now commence your research.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site:

[http://www.nhmrc.gov.au/\\_files\\_nhmrc/publications/attachments/e72.pdf](http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/e72.pdf).

The following personnel are authorised to conduct this research:

Dr Marianne Fenech  
Dr Naomi Sweller  
Dr Penny Van Bergen  
Mr Kevin Francis McGrath

**NB. STUDENTS: IT IS YOUR RESPONSIBILITY TO KEEP A COPY OF THIS APPROVAL EMAIL TO SUBMIT WITH YOUR THESIS.**

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).
2. Approval will be for a period of five (5) years subject to the provision of annual reports.

Progress Report 1 Due: 03 July 2013  
Progress Report 2 Due: 03 July 2014  
Progress Report 3 Due: 03 July 2015  
Progress Report 4 Due: 03 July 2016  
Final Report Due: 03 July 2017

NB. If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been discontinued or not commenced for any reason, you are also required to submit a Final Report for the project.

Progress reports and Final Reports are available at the following website:

[http://www.research.mq.edu.au/for/researchers/how\\_to\\_obtain\\_ethics\\_approval/human\\_research\\_ethics/forms](http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms)

3. If the project has run for more than five (5) years you cannot renew approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit on renewal of approvals allows the Committee to fully re-review research in

an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).

4. All amendments to the project must be reviewed and approved by the Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

[http://www.research.mq.edu.au/for/researchers/how\\_to\\_obtain\\_ethics\\_approval/human\\_research\\_ethics/forms](http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms)

5. Please notify the Committee immediately in the event of any adverse effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

<http://www.mq.edu.au/policy/>

[http://www.research.mq.edu.au/for/researchers/how\\_to\\_obtain\\_ethics\\_approval/human\\_research\\_ethics/policy](http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/policy)

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have final approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

Please retain a copy of this email as this is your official notification of final ethics approval.

Yours sincerely  
Dr Karolyn White  
Director of Research Ethics  
Chair, Human Research Ethics Committee

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Office of the Deputy Vice Chancellor (Research)

Ethics Secretariat

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## Appendix B. Department of Education Ethics Approval



Education &  
Communities

Mr Kevin McGrath

DOC 12/386028

Dear Mr McGrath

SERAP Number 2012046

I refer to your application to conduct a research project in New South Wales government schools entitled *Exploring students' relationships with teachers*. I am pleased to inform you that your application has been approved. You may now contact the Principals of the nominated schools to seek their participation. **You should include a copy of this letter with the documents you send to schools.**

This approval will remain valid until 03/07/2013.

The following researchers or research assistants have fulfilled the Working with Children screening requirements to interact with or observe children for the purposes of this research for the period indicated:

Name	Approval expires
Kevin Francis McGrath	03/08/2013

I draw your attention to the following requirements for all researchers in New South Wales government schools:

- School Principals have the right to withdraw the school from the study at any time. The approval of the Principal for the specific method of gathering information for the school must also be sought.
- The privacy of the school and the students is to be protected.
- The participation of teachers and students must be voluntary and must be at the school's convenience.
- Any proposal to publish the outcomes of the study should be discussed with the Research Approvals Officer before publication proceeds.

When your study is completed please forward your report marked to Manager, Schooling Research, Department of Education and Training, Locked Bag 53, Darlinghurst, NSW 2010.

You may also be asked to present on the findings of your research.

Yours sincerely

Bill Tomlin  
R/Senior Manager  
Student Engagement and Program Evaluation

26 October 2012

## Appendix C. Teacher Online Questionnaire

### Teacher survey

Thank you for your participation in the research project 'Exploring students' relationships with teachers'.

In phase 1 of this study last year we noted that, although it was term 4, some teachers had only been teaching their class for a few months. We have therefore created this survey to help us accurately report on student-teacher relationships that have developed over different amounts of time.

This survey asks how long you have been teaching and how long you have taught participating students. It will take approximately 5 minutes to complete and your responses will be kept anonymous.

We ask that all participating teachers complete this survey. If you are participating in both phases 1 (2012) and 2 (2013), please complete this survey twice.

Please note you can choose to withdraw from the study at any time without giving a reason.

If you are unsure about your answers to any questions, please contact Kevin McGrath.

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics (Ph: [02] 9850 7854, email: [ethics@mq.edu.au](mailto:ethics@mq.edu.au)). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

#### **\*1. By ticking yes in this question you are confirming that:**

- 1. You have returned a signed consent form, have read and agree with the information above and any questions you have about the project have been answered to your satisfaction**
- 2. You understand that your participation in this project is voluntary and you are free to withdraw your participation at any time without giving a reason**
- 3. You understand that your involvement is strictly confidential and that no information will be used in any way that identifies yourself**
- 4. You are happy to participate in this survey**

☐

Yes, I wish to proceed

☐

No, I do not wish to continue

The following questions will assist us match your responses with existing information.

Confidentiality will be strictly maintained at all times during the research process. At no time will participants or your school be identified by name.

#### **\*2. What is your full name?**



## Teacher survey

**\*3. What is the name of your school?**

**\*4. Which phase of this study are you completing this survey for? If you participated in both phases please complete this survey twice.**

☐ Phase 1: Term 4, 2012

☐ Phase 2: Term 1, 2013

**\*5. What was your teaching position at the time you were interviewed for this study? (e.g. classroom teacher, teacher librarian, ESL teacher, sport teacher)**

The following questions will help us describe all of our teacher participants.

**\*6. Years of teaching experience.**

How many years of experience teaching did you have at the time you participated in this study?

**\*7. What is the highest level of qualification you have achieved?**

☐ Certificate

☐ Undergraduate degree

☐ Postgraduate degree

☐ Other (please specify)

The following questions refer to the selected students we discussed in your interview.

**\*8. This question refers to the phase you are completing this survey for.**

How many students were you interviewed about?

(For each student you were asked to give a five minute speech sample)

**\*9. Did you begin to teach the selected students at the same time?**

☐ Yes, I began teaching all of those students at the same time.

☐ No, I began teaching one or more of those students at different times.

## Teacher survey

**\* 10. When did you begin to teach the selected students we discussed in your interview? (e.g. Week 1 of Term 1)**

**\* 11. When did you begin to teach each of the selected students we discussed in your interview? Please provide as much information as you can. (e.g. John, Week 1, Term 3; Sandy, Week 1, Term 1).**

Thank you for completing this survey.

## Appendix D. Expressed Relational Tone Rating Scales

### Expressed Relational Tone

#### Closeness

C o s e e s s e f e s o e d e g e e o f e a c e w a , k g a d c o u c a o o p e e s s . H g e a g s a e g v e w e e s a e e s s o w g a s o g k g f o e s u d e s u g g e s w a a d a f f e c o . I d c a o s o f g e a e c o s e e s s a s o c u d e e d e g e e o f d e a e s p e c s a p e s a e e s s o w g a f o d e s s o f e s u d e , o w e a c e d e s c e s e u d e ( f a c u a y o a s a p e s o ) . a d f e e a c e a d s u d e c o u c a o p e y w o e a o e . A s p e e c s a p e s a s c o e o w e o e f o w g a g s c a e o f e a v e e s s o s a y a o u a s u d e , e y a y a s o e e f e w e o f e d c a o s p o v d e d . S p e e c s a p e s a s c o e g e o s s c a e a e o e k e y o e e a o f e d c a o s .

Very low 1	Low 2	Moderate 3	High 4	Very High 5
<p>Overall, the speech sample suggests a very distant relationship. It may include one or more of the following indicators</p> <p><b>Detail</b> The speech sample lacks detail and suggests the teacher does not know the student particularly well. As a result the speech sample <i>may</i> be strikingly short.</p> <p><b>Liking:</b> The speech sample <i>may</i> include explicit references that suggest the teacher strongly dislikes the student with one or more explicit statements suggesting an unaffectionate, cold relationship.</p> <p><b>Openness:</b> There <i>may</i> be some indication the student and teacher have difficulty communicating, the speech sample may suggest the teacher does not <i>want</i> to know the student, or other evidence to suggest a very distant relationship.</p>	<p>Overall, the speech sample suggests a distant relationship. It may include one or more of the following indicators</p> <p><b>Detail</b> The speech sample includes few factual details suggesting the teacher may not know the student particularly well, but is aware of the student.</p> <p><b>Liking:</b> The speech sample <i>may</i> include statements of dislike that are subtle or interspersed with neutral statements however overall the speech sample suggests the teacher dislikes the student or that they share a cold relationship.</p> <p><b>Openness:</b> There <i>may</i> be some indication the student and teacher have difficulty communicating, or other evidence to suggest a distant relationship.</p>	<p>Overall, the speech sample suggests the student and teacher are not particularly close or distant. It may include two or three of the following indicators</p> <p><b>Detail</b> The speech sample includes factual or personal details suggesting the teacher knows the student.</p> <p><b>Liking:</b> The speech sample may suggest that the teacher likes the student, but not as strongly as higher ratings, or that the teacher neither likes nor dislikes the student. The speech sample <i>may</i> include statements about the student that are neither overly positive nor negative or appears balanced by both positive and negative statements.</p> <p><b>Openness:</b> There <i>may</i> be no indication that the student and teacher communicate openly or have difficulty communicating.</p>	<p>Overall, the speech sample suggests a close relationship. It may include two or three of the following indicators</p> <p><b>Detail</b> The speech sample includes several personal details suggesting the teacher knows the student reasonably well.</p> <p><b>Liking:</b> The speech sample <i>may</i> include statements of liking that are subtle or interspersed with neutral statements however overall the speech sample suggests the teacher likes the student or that they share a warm relationship.</p> <p><b>Openness:</b> There <i>may</i> be some indication the student and teacher communicate openly with one another, or other evidence to suggest a close relationship.</p>	<p>Overall, the speech sample suggests a very close relationship. It may include all three of the following indicators</p> <p><b>Detail</b> The speech sample includes numerous personal or intimate details that suggest the teacher knows the student particularly well. As a result the speech sample <i>may</i> be noticeably long.</p> <p><b>Liking:</b> The speech sample <i>may</i> include explicit references that suggest the teacher strongly likes the student with one or more explicit statements suggesting an affectionate, warm relationship.</p> <p><b>Openness:</b> There <i>may</i> be some indication the student and teacher communicate openly with one another, the speech sample may suggest the teacher <i>wants</i> to know the student, or other evidence to suggest a very close relationship.</p>



## Conflict

Co f c efe s o eac e pe ce ved s ude ega v y, a ge , a du p ed c a y. T e focus s s ude eac e co f c ( o co f c e wee e s ude a d s/ e pee s) a s po e a c a d/o exp essed w a ega ve o e. S ude d s up ve e avou sused o d ca e co f c, w g e a gs gve w e speec sa p es sugges d s ke of d ff cu y dea gw es ude . Speec sa p es of e o y e o d ff cu e avou f s a ove ave age a d o cea e, sugges g so e deg ee of co f c s ke y o ex s . Co f c speec sa p es s p ed a d o se ved.

Very low 1	Low 2	Moderate 3	High 4	Very High 5
<p>The speech sample makes no reference to student teacher conflict. There is no indication of problematic behaviour or negative tone.</p> <p>The speech sample suggests the student is usually behaves favourably, indicating a very low level of conflict.</p> <p>The speech sample suggests the teacher has no difficulty dealing with the student.</p>	<p>The speech sample makes few references to student teacher conflict, although it may indicate occasional occurrences of conflict that is not problematic or expressed with a negative tone.</p> <p>The speech sample suggests the student is usually well behaved and that the teacher rarely needs to reprimand the student, indicating a low level of conflict.</p> <p>The speech sample suggests minimal difficulty dealing with the student.</p>	<p>The speech sample includes some reference to student teacher conflict that is occasionally problematic, expressed with a neutral tone.</p> <p>The speech sample may suggest that any conflict is manageable and does not dominate student teacher interactions, indicating a moderate level of conflict.</p> <p>References to difficult behaviour may be balanced by other positive statements.</p> <p>The speech sample may include indications of disapproval associated with the conflict but does not suggest any difficulty dealing with the student.</p>	<p>The speech sample includes one or more explicit references to student teacher conflict that appears to be somewhat problematic or expressed with a negative tone.</p> <p>There may be numerous references to difficult behaviour that is often disruptive and/or that the teacher frequently reprimands the student indicating a very high level of conflict.</p> <p>The speech sample may include explicit statements showing dislike or disapproval associated with the conflict, although there may be some positive statements that provide relief. It may suggest dealing with the student is somewhat difficult.</p>	<p>The speech sample includes one or more explicit references to student teacher conflict that appears to be problematic or expressed with a negative tone.</p> <p>There may be numerous references to difficult behaviour that is often disruptive and/or that the teacher frequently reprimands the student indicating a very high level of conflict.</p> <p>The speech sample may include explicit statements showing dislike or resentment associated with the conflict, with very few positive statements providing relief. It may suggest dealing with the student is very difficult or draining</p>

### Dependency

Depe de cy efe s o ow e a , de a d ga d possess ve e eac e desc es es ude as e g.W e s o a fo you gs ude s o e depe de o e eac e o so e deg ee, ose w g e depe de cy a e key o e desc ed as 'c gy', ' eedy', 'de a d g' o 'possess ve'. Due o eo e ca a o s, co ex ua f ue ces a d e p e a o s of depe de cy we e o poss e.

Very low 1	Low 2	Moderate 3	High 4	Very High 5
The speech sample shows no indication that the student is dependent on the teacher.  The speech sample suggests a harmonious relationship or that despite any conflict the student is not dependent on the teacher or does not appear to require frequent reassurance.	The speech sample suggests the student is rarely dependent on the teacher.  The speech sample suggests a mostly harmonious relationship. The teacher may describe the student as 'excessively helpful' or 'excessively helpful or 'reliant'. However, dependency at this level does not appear to be problematic.	The speech sample suggests the student may at times be dependent on the teacher (or that they once were overly dependent on the teacher).  The teacher may describe the student as 'excessively helpful', 'reliant' or needing reassurance. Dependency at this level is rarely problematic.	The speech sample includes some indication that the teacher feels the student is dependent on them, reacts strongly to separation from them, or asks for help when he/she does not really need help.  The teacher may describe the student as 'clinging', 'needy' or 'demanding'. Dependency at this level appears somewhat problematic.	The speech sample includes one or more statements suggesting the teacher feels the student is overly dependent on them, reacts strongly to separation from them, or asks for help when he/she does not really need help.  The teacher may describe the student as 'clinging', 'needy', 'possessive' or 'demanding'. Dependency at this level appears very problematic.

### Overall Tone

Ove a o e efe s o ow wa o co d e speec sa p e s.A oug eac e wa was easu ed e cose ess su sca e, e e e ove a wa s a ed; co s de g e speec sa p e o e o s ca ya d a gs of cose ess, co f c, ca e a d depe de cy.

Very cold 1	Cold 2	Neutral 3	Warm 4	Very warm 5
The speech sample is especially cold and suggests a negative, unaffectionate and distant relationship exists between student and teacher.	The speech sample shows no indication of warmth. It may be somewhat negative and is colder than neutral.	Despite the length of the speech sample, it is neither overly warm but at the same time does not indicate a lack of warmth. It may simply be average, ok, or balanced between warm and cold.	The speech sample suggests a harmonious relationship, with statements suggesting 'liking' of the student and is better than neutral.	The speech sample is especially warm and suggests a positive, loving and close relationship exists between student and teacher.