

**ON EVERYDAY STRESS AND COPING STRATEGIES
AMONG ELEMENTARY SCHOOL CHILDREN**

By

Valerie A. Sotardi

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As members of the **Dissertation** Committee, we certify that we have read the **dissertation** prepared by **Valerie A. Sotardi**, titled **On Everyday Stress and Coping Strategies among Elementary School Children** and recommend that it be accepted as fulfilling the **dissertation** requirement for the Degree of Doctor of **Philosophy**.

_____ Date: **April 17, 2013**
Mary McCaslin

_____ Date: **April 17, 2013**
Thomas L. Good

_____ Date: **April 17, 2013**
Ronald S. Marx

_____ Date: **April 17, 2013**
Heidi Legg Burross

Final approval and acceptance of this **dissertation** is contingent upon the candidate's submission of the final copies of the **dissertation** to the Graduate College.

I hereby certify that I have read this **dissertation** prepared under my direction and recommend that it be accepted as fulfilling the **dissertation** requirement.

_____ Date: **April 17, 2013**
Dissertation Director: **Mary McCaslin**

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SIGNED: Valerie A. Sotardi

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ABSTRACT

Elementary school students are confronted with a variety of everyday challenges ranging from comprehension obstacles to interpersonal conflict. Learning to cope effectively with moments of tension is an important part of a child's education because adaptation to stress is likely to influence academic and developmental success. However, empirical gaps exist with respect to stress and coping. There is a general lack of research concerned with stress and coping in educational settings, and what has been published focuses on adolescent and adult populations rather than children. Additionally, the majority of research addresses major life stress (e.g., traumatic events) rather than the everyday stress that students encounter at school. This dissertation is an effort to address these concerns. Comprised of three studies, the project examines the stress that students in middle childhood (grades 3-5) commonly experience at school, how students cope with stress at school, and what educators might do to help students develop adaptive coping strategies. Results illustrate the daily school stress in students, need for students to learn how to manage academic and peer problems, and role of the teacher in coping development. Concluding thoughts and a research agenda for future work are included.

CHAPTER 1: INTRODUCTION

The field of educational psychology addresses topics related to motivation and learning with an overarching goal to maximize student success. In today's world, student success is more frequently viewed in strictly terms of academic achievement and less frequently viewed in terms of child development. Questions about the responsibility of elementary schools to help students acquire skills that are necessary for adaptive thinking and resilience largely remain unanswered. What different qualities might a successful student possess? Should success be limited to content mastery and performance outcomes, or should it also include competence in dealing with (and learning from) daily challenges at school? According to Rohrkemper and Corno (1988), an important outcome of education is for students to learn healthy ways to deal with stress. A perspective incorporating student stress and coping should therefore be at the frontlines of educational psychology. Alas, little research is published with respect to stress and coping in educational settings, especially with elementary school populations (Pienaar, 2010). To fill this empirical gap, my dissertation is comprised of three studies. Here, I examine the typical stress that students in grades 3-5 report experiencing at school, how students report coping with stress at school, and what educators might do to help students develop adaptive coping strategies for academic as well as developmental success.

The Current Research

My research agenda includes five primary objectives. The first objective is to learn more about the general nature of stress from the young student's perspective. An investigation of stress and coping with children should begin with an understanding of what stress *is* and *does* according to the age population involved. In Study 1, I ask third graders how they define stress and what characteristics make a situation stressful for them. The second objective is to identify

stressful situations that students commonly experience in elementary school. In Studies 1-3, I ask students and teachers from grades 3-5 for input about everyday sources of stress. The third objective is to measure and evaluate day-to-day fluctuation for different types of school stress. In Study 2, I build on results from the previous objectives to design and put into practice a brief school-related stress scale for use with young students. The fourth objective is to examine how students cope with different types of school stress. In Studies 1 and 2, I ask students from grades 3-5 to report how they responded to previous stressful events at school. The fifth objective is to explore what teachers do to help students manage stress at school. In Study 3, I ask teachers from high-performing elementary schools what a new teacher should know about stress and coping in schools and how to improve classroom practice.

I address these five objectives using results from collected data sources. For each respective study, I include the following components: abstract, brief literature review, method, results, and discussion. At conclusion of the three studies, I highlight key findings and present an agenda for future research involving student stress and coping in elementary school.

CHAPTER 2

STUDY 1:

ON BEING A STUDENT: DAILY STRESS, RELIEF, AND COPING IN THIRD GRADE

Abstract

Because it may sometimes be difficult for educators to know what challenges young students face at school, this qualitative study investigated the daily life of third graders from a stress and coping perspective. Semi-structured interviews ($n = 16$) addressed the moments of tension students typically face inside and outside the classroom as well as how they try to manage such moments. First, students described stress as a challenge or threat that tends to develop in response to conflicting demands and/or a lack of personal control over a situation. Second, students illustrated specific sources of stress and relief at school, ranging from academics to peers, friends and teachers. Third, students theorized the causal impact of school stress and relief on their self-efficacy beliefs and classroom behavior. Last, students explained in depth how they previously coped with a moment of tension, adding a richer understanding of what tools students report using when they face problems at school.

On Being a Student: Stress, Relief, and Coping in Third Grade

Elementary school is one the earliest, most acculturating environments for young people. Here, children learn to be students. The student role is multifaceted, requiring academic and social knowledge across diverse settings (Blumenfeld, Hamilton, Wessels, & Falker, 1979; Rothstein & Jacobsen, 2006). Since children spend a large percentage of their formative years at school (Hofferth & Sandberg, 2001), they have many opportunities to practice the student role. This practice becomes routinized in middle childhood, when students find themselves with added responsibilities that call for increasingly refined self-regulation and flexibility (Colman, Hardy, Albert, Raffaelli, & Crockett, 2006; Lengua, 2003; Markus & Nurius, 1984; McClelland & Cameron, 2011). At school, each individual must navigate a sea of challenges, ranging from comprehension obstacles to interpersonal conflict (Byrne, Thomas, Burchell, Olive, & Mirabito, 2011; Humphrey, 2004; Kraag, Zeegers, Kok, Hosman, & Abu-Saad, 2006; Lau, 2002; Lee & Cohen, 2008; McNamara, 2000). Although an important outcome of education is for students to learn healthy ways to cope with stress (Rohrkemper & Corno, 1988), the process of acquiring those skills can be daunting.

Helping children to develop adaptive coping strategies is a responsibility shared by educators, administrators, and parents. This requires a clear understanding of what it means to be an elementary school student. Unfortunately, adults and children report large differences in what school is like. Students tend to report greater stress across different school-related situations (e.g., discipline, performance, and peer conflict) than do teachers and parents (Anderson & Jimerson, 2007; Anderson, Jimerson, & Whipple, 2005;; Bagdi & Pfister, 2006). Despite acknowledgment that these differences exist, literature on stress and coping in elementary school is small compared to older populations (Pienaar, 2010). Having an accurate

representation of student stress and coping in middle childhood is important for several reasons. School stress is a universal phenomenon affecting students. Teachers who are mindful of the stress that students experience (not only those viewed as “at-risk” but all students) can have immediate effects on school behavior as well as prolonged effects on health and adaptive capabilities. Too much stress can result in learning deficits, performance declines, conduct problems among peers, and classroom management issues for the teacher (Barrett & Heubeck, 2000; Lau, 2002; Omizo, Omizo, & Suzuki, 1988; Sharrer & Ryan-Wenger, 2002). What students understand about stress and perceive as stressful may potentially be learned early in life with lasting effects. Over time, accumulation of stress can impact academic achievement as well as social and emotional development (Agrawal, Garg, & Urajnik, 2010).

Since stress can have major implications for psychological and physical health (Compas, 1987a; 1987b; Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Hampton, 2006), nonprofit organizations that advocate for the protection of children’s wellbeing, such as the World Health Organization (WHO; 2004, 2005) and The United Nations Children’s Fund (UNICEF; Lansdown, 2001), argue that adults must do a better job of listening to young people (Kostenius & Öhring, 2008; Pienaar, 2010). To reach this goal in elementary schools, teachers and administrators should have the knowledge to carry out three responsibilities. First, educators can provide an environment where all learners may voice freely their concerns and also be prepared to respond appropriately to that concern. In this regard, teachers can create an emotionally safe classroom in which students feel comfortable bringing problems to the adult (see Sotardi, study 3). Second, educators can benefit students by being sensitive to diverse and changing school settings that may be linked to stress. For instance, there has been a marked increase in student stress with the advent of high-stakes testing (Ryan-Wenger, Sharrer, &

Campbell, 2005). Third, educators can work with students to build healthy ways to deal with school stress. Effectively managing daily problems is particularly significant because these everyday hassles are known to be a better predictor of wellbeing than are major events (Kanner, Coyne, Schaefer, & Lazarus, 1981). These responsibilities can help students to develop adaptive coping strategies when confronted with stress. This, in turn, is an effort to invest in “our most precious resource” (Aynsley-Green, Barker, Burr, Macfarlane, Morgan, Sibert et al., 2000).

In this exploratory study, I focus on the first objective by giving students an opportunity to describe the stress they experience at elementary school. To address a lack of available research in middle childhood, I concentrate on third graders’ daily stress appraisals and methods of coping at school. Specific research questions were:

1. How do third grade students talk about stress?
2. What do students report as sources of stress and relief at school?
3. In what ways do students think stress impacts school behavior?
4. In what ways do students respond to stressful events at school?

Becoming aware of what students know about school stress will provide insight into what situations they view as stressful and relieving. Insight into students’ sources of stress and relief will offer a greater understanding of how daily exchanges at school might impact learning opportunities and social relationships. Gaining knowledge about student stress will offer insight not only into how young people attempt to manage challenges, but how coping strategies can be nurtured, enhanced, and supplemented. Listening to a child’s voice may help educators to better meet the psychological needs of students.

Method

Participants and Setting

Sixteen 3rd grade children (9 girls, 7 boys) volunteered to share experiences about stress at school. Child age ranged from 8 to 10 years ($M = 8.8$ years). All participants were recruited from two classrooms at the same elementary school. The school serves 550+ students in grades K-6 in a suburban, low poverty setting (as determined by 13.8% eligible for free- or reduced-lunch) and predominantly Caucasian setting (CCD public school data 2009-10 year; National Center for Education Statistics). Despite its relatively large school size, the average class size is below the national average. Importantly, the school has consistently been rated as an “excelling” school by the state’s achievement profile system, indicating student performance significantly above state performance goals and a significant number of students who exceed testing standards. Both teachers of the sampled classrooms had 13 years of experience as elementary-school educators and showed interest in student stress. A high degree of parent involvement in academics was reported by the teachers in both sampled classrooms. Therefore, it is important to emphasize that students in this study were given a high degree of support and supervision from adults. My intent in recruiting this elementary school was to identify how students from an enriched learning environment appraise and respond to stress.

Data Collection & Analysis

Participant interviews were the primary source of data collection. I interviewed 16 students individually at their school. This procedure allowed for confidential interactions and minimized concern of being judged by others. Interviews lasted 15-25 minutes. An interview guide (Patton, 2002) structured the conversations. Appendix A presents the interview protocol. As shown, I began by identifying students’ personal definitions of stress to understand clearly what they meant when talking about stress at school, as their conceptualizations of stress might differ from my own. Second, I asked students to share typical sources of school stress and relief

for them. Third, I asked participants whether they thought very good (low stress) and very bad (high stress) days at school influences their behavior academically and with other people. Last, I asked students to share a recent time when they experienced stress at school. Students were asked to give details including what happened, how it felt, what they did and thought when it happened, and how things turned out. To maximize the reliability of the self-report, students were asked to describe each coping episode describe events that occurred only in the few weeks. All interviews were audiotaped and transcribed.

Data were analyzed using qualitative methods of constant comparison and analytic induction to identify common themes that emerged among the interviewed students (e.g., LeCompte, 2000; LeCompte & Preissle, 1993). A research assistant (trained in coping strategies and child development) and I independently coded and compared student transcripts to establish common themes. This was achieved first by familiarizing ourselves with existing literature specific to coping strategies reported by young people. To do so, we referred to categories theorized as primary coping strategies in Skinner et al. (2003) as well as a range of empirical examples of survey items and child and adolescent interview responses in previous research (e.g., Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000; Walker, Smith, Garber, & Van Slyke, 1997). We used these examples as a research-based coding guide for use in the current study. Selections from this coding guide are included in Table 1. Note we did not limit ourselves to the categories proposed in extant literature; rather, we used these categories as a general reference. Whenever we felt a student response was a close match with an example from the existing references, we categorized accordingly. For example, if a student responded, “I go play somewhere else,” we coded it as an “Escape” coding strategy because it was similar to category examples such as “by going somewhere else” (Ayers, Sandler, West, & Roosa, 1996).

When we felt a coping strategy was not sufficiently represented in the existing literature, we created a new one. For example, we did not feel as though coping through “Support Giving” (e.g., “I talk to the person who is mostly sad about it [to make them feel better]”) was a strategy clearly included in the extant references. As a result, we presented “Support Giving” as a method of coping as identified by the sample in this study.

Generally, coding and analysis included the following steps as guided by Saldaña (2011): (1) independent identification of key terms found within the transcripts based on our research-based example guide; (2) category creation when similar terms were present; (3) development of coding rules for the set of categories; (4) comparison of the categories by the two coders as a formative check of reliability; (5) adjustments and review for any discrepancies as a summative check of reliability; and, (6) interpretation of results using quantitative steps of analysis (e.g., frequencies) when appropriate.

Results

Students provided insight into daily stress and coping at school. In the following sections, I discuss student responses to the four research questions. When a specific student is quoted, the parentheses identify gender and age. Pseudonyms are used throughout.

Children’s Understanding of Stress

How do third graders talk about stress? For some, stress was discussed in terms of individual judgments and appraisals. Discussion involved what causal factors presumably lead to an internal state of tension. For others, stress was discussed in terms of affective response. This typically involved a description of emotional or physiological symptoms of stress. Results were therefore grouped into themes called *Thoughts about stress* and *Feelings about stress*.

Thoughts about stress. Although students were posed with the question, “What do you think the word ‘stress’ means?” they often answered with, “Stress is when x happens...” A closer examination of responses revealed that for these children, stress originated from a situation where one or more of the following themes were present: (a) challenge or difficulty; (b) personal threat; (c) conflicting demands; and, (d) lack of personal control. The identified themes are described below; however, it is important to note they are not mutually exclusive. For instance, a challenge may involve conflicting demands and a threat may involve a lack of personal control.

Students frequently identified *challenge or difficulty* as antecedents of stress. For example, Alicia (girl, 9) described stress as occurring “[when] you’re having trouble doing something... like you’re just having the perfect day and then you just start getting a little frustrated and you run into something bad or something.” This implies that confronting with an unexpected challenge can lead to increased tension, and this tension has a negative impact on the individual’s internal state. Elizabeth (girl, 8) equated stress as a more long-lasting challenge. She stated, “[Stress] means difficult and it means things are hard. It means, like, you’re always having a hard time. Everything is really difficult.” Consistent with stress appraisal theories by Lazarus and colleagues (e.g., Lazarus, 1991, 2006; Lazarus & Folkman, 1979), viewing stress as a challenge alludes to the possibility for growth in the experience. Young students who are able to recognize moments of tension as temporary hurdles may respond to everyday problems in a more adaptive way.

A few students described stress as emanating from *personal threat*. As opposed to challenges and difficulties, threats are centered on potential harms and characterized by negative emotions such as fear or anxiety (Lazarus & Folkman, 1984). As Thomas (boy, 9) stated, “[Stress] means, like, when you’re really scared that you’re not going to do something well.

You're gonna get a bad grade or you're not gonna finish it." Brian (boy, 9) commented, "[Stress is] like, you're worried about a test. Um... like, you're worried that you're going to fail on it and do really bad." Specific types of threats were illustrated. Jake (boy, 9) defined stress as, "[If] a person is, like, stressed out that means he or she has been bullied or has been upset." Taking these factors into consideration, students who associate stress with threat may view the world as unpredictable. Students may hold themselves in a state of limbo, bracing for stress because they expect a bad situation will come to fruition. Stress viewed as a threat would presumably warrant different forms of coping when compared to challenges and difficulties.

Students also recognized stress as a result of *conflicting demands*. In fact, many of the responses portrayed stress as emerging from multiple, low-intensity stressors. For instance, Dana (girl, 9) explained stress as a state of being "overwhelmed, like, with a lot of stuff. You have to remember things. And you forget a lot of things. And it's just a lot of things going on." The phrase "a lot of stuff going on" was the most frequently related descriptor in this theme. Hurdles can quickly become exhausting when one realizes there are many to jump. Accordingly, a multitude of stressors may require coping strategies that are different from an isolated stressor.

Students frequently voiced stress as emanating from a perceived *lack of personal control* over a particular situation. Susan (girl, 9) explained that for her, stress occurs when she "can't do 'this'... whatever it is." Stress was further described by Melissa (girl, 8), "I think the word stress means, maybe, like when you've having difficulties and you don't know how to control it and you're getting, you get kind of like, tightened." As will be discussed later, a few students equated moments of tension as a lack of control over time constraints. Julia (girl, 9) exclusively defined stress as when she "just [feels] rushed." Students who reported thoughts about stress tended to frame stress with elements of causal attribution (see Weiner, 1986, 2011). These

questions include predictability (what most likely will happen?), stability (could the situation change?), and controllability (will anything I do impact the outcome?). Elizabeth (girl, 8) expressed, “[Stress means] that nothing is going the way it used to be.”

Feelings about stress. Students often defined stress in terms of affect. Specifically, feelings about stress represented emotional and physiological symptoms. These symptoms might be experienced before, during, and after an appraised stressor. Of the stress-related emotions, children most frequently reported anger. For instance, Colin (boy, 10) expressed stress as feeling “mad... losing my temper.” Other emotions commonly used to describe stress were anxiety and fear. Jamie (girl, 9) explained a sense of tension, “I think [stress] means, like worried. It feels not so good in my mind.” Michael (boy, 9) generalized the emotionality of stress by defining it as “...when you freak out.” Alicia (girl, 9) noted that feelings associated with stress can be a cacophony of emotion, “If you don't feel, you're not feeling super great. You're just a little mad and sad and frustrated. All three at the same time.”

Notably, all the emotions expressed by students were negative in valence. One student, however, framed stress in a more complex way. Marie's (girl, 8) explanation of stress stood out. In her description, stress involved moments of tension before an unpredictable event but also moments of relief after a stressful event has taken place.

She reasoned:

[Stress is] not 'scared' but, like, kinda nervous. You really don't like it if it's stress. But it can sometimes be good. Like, if you're anxious to do something. Or nervous too... like before you jump into the swimming pool.

In addition to emotional descriptors of stress, many students defined stress in terms of physiological symptoms. The most commonly reported symptoms included headache and

fatigue. Other indicators included dizziness, stomachache, and a general sense of tension. For Susan (girl, 9), a state of stress was associated with temperature change, “Sometimes you warm up a bit, like your ears or something.” Oscar (boy, 9) noted that physiological symptoms of stress can also impact behavior at school. He commented, “Sometimes I just get tired and, like, I just don't want to do stuff at school. And just like go back to my house and rest, just laying down and relaxing.” These examples demonstrate that children at this age associate stress with physical feelings of discomfort. Collectively, students conceptualized stress as a state of emotional distress and physiological tension shaped by a perceived lack of control and stability.

Sources of Stress

Academics as stress. Table 2 presents third graders’ reported sources of school stress. As shown, academics were a source of stress for all interviewed students. What emerged as the most commonly discussed source of stress was *pace and time constraints*. Many children voiced they did not have enough time to complete academic tasks or to fully comprehend a learning objective before the teacher would need to move forward in the curriculum. Thomas (boy, 9) explained, “I don’t like how, like, sometimes there’s a project and then it’s like, you can’t finish it in time. And you, you have to rush on it a little bit.” Julia (girl, 9) described stress as the transaction between time constraints and academic consequences, “[I felt stressed] on Sunday, when I had to turn in a project and I had really little time to do it. [I was] um, worried that I would get in trouble for not turning it in.” Jenny (girl, 9) provided an example, “[One] time we had, um, we did a review and [the teacher] did it really fast and I was... trying to pay attention but then I’m like, ‘Where do you put that number?’” Rudy (boy, 8) explained that it was distressing when his favorite subject, math, was omitted in the daily lesson. Students were generally concerned with time constraints; they had a lot to do in a little amount of time. Marie

(girl, 8) explained it is particularly stressful when she is given “a short time to just to do all our work that [the teacher] assigns us.”

Many students also referred to *challenges of learning and comprehension* as a source of stress. These challenges were typically described as a natural but demanding part of school life. Thomas (boy, 9) illustrated moments of tension along the process of discovery, “Well, hard things are learning, like, really challenging, new things. At first, uh, long division was hard for me. But I got it.” A related stressor involved the *challenges of memory and retention*. Some students were concerned about forgetting content or remembering how to properly complete a task. Colin (boy, 10) explained although he generally enjoys math, he feels embarrassed whenever he forgets the procedures. Alicia (girl, 9) added that she would experience stress if “I forgot something or I didn’t do anything, or I didn’t do something right.”

Another common stressor was the amount of work to be completed. *Academic workload* typically included student comments about classwork and homework. Alicia (girl, 9) explained the work she needed to do each day can often lead to stress, “There’s a lot of work. Um, it can sometimes get a little bit tiring. Sometimes it can get a little frustrating and, yeah, like more of it is mostly math.” Oscar (boy, 9) added that the workload is not just the content to be mastered but also the procedures inherent in learning, “Sometimes [...] you gotta, like, write a lot down which I really don’t like.” A combination of a heavy workload with time constraints seemed particularly distressing to students when they also ran into some kind of learning challenge. Brian (boy, 9) stated, “I don’t really like math that much. But I try to learn quickly in case I fall behind. I just kind of panic a little bit.” A few students reported stress as a result of *learning distractions* by other kids, especially when they were faced with workload demands and time constraints. Moreover, learning distractions were associated with reported *fatigue*.

Although less frequently, a few students were bored with subject matter and activities. *Boredom* may therefore be interpreted as stressful because individuals in this study were rather enthusiastic learners. These students voiced a love for learning but appeared to experience stress when not fully engaged. For some, a *perceived lack of autonomy* over classroom tasks (e.g., not being able to pick a partner for an activity) seemed to produce short-term stress. Other factors, such as *criticism by others* and *small-group work issues*, were reported as stressful. Jake (boy, 9) explained he felt stress if classmates were critical of his work or ideas during whole-class learning activities, “The other kids in the class, they like, bother me because I, like, once a math test I answered a question wrong and they said ‘It’s wrong, and that’s wrong...!’”. Working in small groups was a source of stress for several children, presumably because individual learning depends on effective involvement with others. Students commented working in small groups can be stressful because there is sometimes uneven distribution of work to be done. Additionally, a lack of participation by other students in the group can be stress-inducing.

Colin (boy, 10) gave an example:

Yesterday, we had to do a report and, like, I was with a partner that a lot of kids don’t like so I had to be nice enough to do that and I ended up doing a lot more of the research so it was really hard. So [the other child] kinda got excused because he had to go down to P.E., gifted class, and stuff like that and I just, ‘Ugh!’ I just got really frustrated. I had to type, type, type...

In a world of high-stakes testing, one might expect *performance outcomes* (e.g., class exams, report cards, and standardized tests) as stressful for children. To the contrary, students in this study were not greatly concerned about academic achievement in the performance sense. They seemed much more focused on reaching mastery and understanding academic tasks. It

appears as though efforts by this particular school to de-emphasize grades and performance measures were successful, at least among these students.

Peers as stress. Issues involving peers emerged as the most commonly cited source of school stress. For the majority of the interviewed students, *verbal conflict* was the most frequently discussed topic. These conflicts were overwhelmingly reported by the girls in the sample. Elizabeth (girl, 8) described the challenges of social life in the third grade classroom, “I think the hardest thing about third grade is the people. The kids are really hard. Um, lots of the kids try to get their own way.” Susan (girl, 9) added, “I don’t like the way how I get treated by one of the girls. She lies to us and she actually blames things on me and she says I did this and she actually like gives me mean looks.” In addition to direct confrontations, indirect methods of conflict such as *gossip* (e.g., spreading rumors, telling/keeping secrets) were stressful to children.

Dana (girl, 9) explained the impact of peer conflict on the larger group of girls within the class:

[When] someone—especially if it’s girls—um, someone will be mean to a girl and the girl will go and tell everybody about it and so it doesn’t just stay between them it goes all around and so then everybody is mad at each other.

Bullying and malicious teasing were concerns for some of the students. Jenny (girl, 9) confessed that one child is particularly mean to her every day. Jake (boy, 9) provided a specific example, “There is a guy in another class. On purpose he threw a tennis ball at my head and then he made fun of me and then it kept going on...” Colin (boy, 10) also described the stress of being teased, “[What is stressful is] being made fun of. I accidentally farted a couple of times, and then everyone started blaming me. Somebody started making all sorts of dumb voices.”

Stress as result of verbal or physical forms of conflict among peers appeared to be exacerbated when contemplating how the child should cope with the situation. For a few students, the decision to seek help from adults was particularly worrisome. They questioned the justice in how some situations would be handled by teachers and other school staff (e.g., “getting blamed for things I didn’t do”). The occurrence of peer conflict may become a secondary source of post-event stress, and a likely impact on how to cope with a potentially serious situation.

Friends as stress. Generally, problems between friends were not a common stressor for students. A few individuals identified *direct conflict* with a best friend as a stressor; however, the more frequently reported source of stress came from situations where a friend was in some kind of trouble. *Friend in trouble* varied in types of friend-peer conflict.

Thomas (boy, 9) described his personal stress when a close friend is being teased:

I don’t like how kids that are mean try to pick on your friend. Like, they like you and they want to be your friend, but you don’t like stuff about them. That’s happened to me and one of my friends. Like they’re not mean but they’re like um, like sort of like troublemakers.

Similarly, Jamie (girl, 9) provided another example:

I don't like drama. Just, like, the fights and stuff that I always get pulled down with, like, usually I'm not part of it. So my friend, she didn't do anything but, um, like my other friend—but that I don’t really hang out with—um, like she said that my friend ‘looked fat in that dress.’ And like, she got really sad. [I felt] sad because it's not nice.

Such examples emphasize building friendships as priorities for students in this sample. Moreover, preservation of social bonds in different ways (e.g., defending a friend) appears to be personally stressful even though the individual might not be directly involved with an event.

Teachers as stress. Rarely were teachers reported as sources of stress by students. A few students commented a source of stress came from *discipline and order*. Responses by the students mainly included types of punishment (e.g., losing recess for misbehaving) as well as efforts by the teacher to maintain order in the classroom. For example, Susan (girl, 9) explained a feeling of stress when her teacher made a comment during a whole-class activity, “Um, [the teacher] said, ‘You’re not connected. Look up here please.’ That only happened to me once I think, and it was really embarrassing. So I’ve been trying to prevent that from happening.” One student commented on the stress he experienced as a result of being disciplined by the teacher for misbehaving, which he interpreted as a *personality conflict* between him and his teacher.

Sources of Relief

Academics as relief. Students also gave examples of what helps them to feel a sense of relief at school (see Table 3). Academic sources of relief were the most diverse and frequently reported by students. *Favorite subjects* were the most commonly cited source of relief. For example, Elizabeth (girl, 8) described the enjoyment of learning social studies, “Well I like social studies [...] I like learning about the people in history and I also found out that my step dad’s mom’s great grandpa was in the Civil War.” Other sources of relief included *learning activities* as well as *creative projects*. Such tasks (e.g., learning games) promote interactive engagement and when successful, this engagement can be a source of relief for students. Similarly, students linked relief with opportunities for autonomy such as class presentations and artistic creation.

Relief also seemed to emanate from characteristics of academic tasks. Specifically, children enjoyed *easy tasks* to perform. For instance, Dana (girl, 9) commented, “I like to read and I like spelling. I like spelling tests a lot. I'm good at them. [...] the words are really easy sometimes.” Marie (girl, 8) added, “Reading is just easy for me, and it’s fun because I don’t have to try.” Importantly, students did not want tasks that were universally absent of challenge. For some, *appropriate challenge* was an enjoyable part of learning. In explaining sources of relief in third grade, Alicia (girl, 9) pointed out, “[In third grade,] you get to do a lot of fun activities. You get to learn more advanced stuff and you start getting more and more and more. I don’t want too much of a challenge, but I don’t want too less of a challenge.” Oscar (boy, 9) reflected, “Second grade and first grade weren’t that fun. It’s just like boring and simple. This one’s hard but fun.” Together, overly challenging tasks may be stressful, but this may also be the same for overly simple tasks (Rohrkemper & Corno, 1988). Indeed, a source of relief for students involved the process of *overcoming challenges*. For example, Alicia (girl 9) expressed a sense of pride after finishing her academic work, “[It] would just let me feel relieved because I let off all that work.”

Thomas (boy, 9) explained:

The best things [about third grade] are that you get to learn new things, and you get to understand them better and you can get, you can be more successful. Like you're scared ‘cause you think you’re gonna like get in trouble by not learning something, but you end up doing really well.

Teachers as relief. In this study, students frequently described the teacher as a source of relief. Many individuals identified *teacher personality* as important sources of relief. For instance, Marie (girl, 8) explained “[My teacher is] really nice. She says stuff different than other

teachers, and she's just different.” For Colin (boy, 10), the teacher's personality was a mutual part of emotional support, “Having an awesome teacher [...] would make me feel better. [She helps me to] understand that tomorrow will be a new day—stuff like that. It just... it helps a lot.” Others commented on the *instructional style* of the teacher. Melissa (girl, 8) explained, “I like the way she teaches. Um, how she kind of specifically says what she means and she helps us if we don't get it.” Jenny (girl, 9) stated “[The teacher is] really funny, and um, when like we're doing hard math problems she puts them into stories like when we were doing fractions, she said, ‘I give my horses one fourth of a bale of hay.’” A few students in the sample specifically addressed the teacher's use of *positive reinforcement* in the classroom. Elizabeth (girl, 8) explained, “It'd be a really good day if my teacher compliments me.”

Friends as relief. Many students identified *time with friends* were helpful in staying “balanced.” Dana (girl, 9) emphasized the importance of social support when in the face of stress, “On a bad day, I would probably hang out with my best friend and talk about it because I know that talking about things it feels a lot better.” Students also identified *building friendships* as the core of being a third-grader.

Peers as relief. Students less frequently reported peers as a source of relief; in fact, the only consistent response involved *cooperation* during classroom tasks. For example, Marie (girl, 8) noted, “[I am relieved when] we're working on a project together, like, we're cooperating and like, ‘Can you hand me the glue?’ ‘Yeah, sure.’” One student commented a positive mood by others in the class had a calming effect.

Unstructured time as relief. Another source of relief was *unstructured time*. Children expressed recess and lunchtime as sources of relief. For most of the girls, *time outside the classroom* (during recess and lunch) was focused toward socialization, whereas for most of the

boys, unstructured time was focused toward physical exercise and sports. Inside the classroom, many children described *silent reading* as sources of relief.

School setting as relief. The *school setting* itself was a less commonly-reported but noteworthy source of relief. Children in this study showed a sense of pride in their school and enjoyed the size and facility. For instance, Jenny (girl, 9), a student new to the school, explained, “[It’s] different from my old class because for my old school [...] we just had one room. And we had like fifty some students. So it’s way easier ‘cause we get more one-on-one.”

Impact of Stress on School Behavior

According to students, does a stressful day impact school behavior? Students were asked how a “very tough” day at school might impact academic (learning new material, performance) or social (interactions with peers and teacher) factors. As a means of relative comparison, students were also asked to describe a “not at all tough” day at school might impact the same factors. Responses concerning stressful and stress-free days were almost diametrically opposites; thus, results are integrated in this section.

Generally, students theorized stressful and stress-free days would shape academic motivation as well as achievement outcomes. A closer examination of the responses indicated that a departure from a typical day at school would likely produce changes in learning and performance outcomes, academic self-efficacy, desire to learn, and attention and focus.

Learning and performance. First, several children stated a tough time at school would reduce learning and performance outcomes. Melissa (girl, 8) stated a bad day would have an impact on her ability to learn new material in class, “[A tough day at school] would be a little stressful because, like, we have all these things to learn and we have to kind of, like, shove them in our mind.” By contrast, students posited stress-free days would have a positive effect. Jake

(boy, 9) explained a great day would make it easier to learn new material. Brian (boy, 9) added, “If it was a good day, [...] I would probably learn [new material] pretty quickly and I’d get the hang of it. It would probably take a little bit, but I would probably learn it pretty quickly.”

Academic self-efficacy. Second, students frequently expressed that a stressful day would reduce their (generally high) academic self-efficacy. Importantly, students reported self-efficacy changes would not necessarily lead to a change in performance. Jamie (girl, 9) explained, “[On tests] sometimes I do good and sometimes I don’t. But I still, like... don’t feel good about it. I don’t feel confident.”

Alicia (girl, 9) made a poignant observation relating stressful days at school, self-efficacy, and test performance:

[Test performance] depends how well I think I’m gonna do. ‘cause sometimes I think I’m gonna be really confident and pass it. Sometimes I could feel a little down, ‘cause I’m like either tired or mad or something like that. [pause] How you *think* you’re gonna do affects how you’re gonna do. That’s what I think.

By contrast, students contended stress-free days would have a positive effect on academic self-efficacy beliefs. Jamie (girl, 9) explained, “[Learning new material] turns out good because, like, I like learning new stuff. And I feel good about myself when I learn it.” Thomas (boy, 9) commented he would feel better about participating in class, “If the teacher calls on me, I would like, have a loud voice and be, sort of, positive about it.” Others added stress-free days would produce confidence before a test. For instance, Alicia (girl, 9) described, “[Tests] turn out usually pretty good and like, ‘cause if I’m having a really good day, it seems like I’m into the work right now and I feel like I’m confident that I can pass the test.”

Desire to learn. A few children reasoned stress would have a likely impact on their desire to learn, namely mood and enjoyment. For instance, Jake (boy, 9) commented a stressful day would lead him to feel reluctant to learn new material. More often than not, students described stress-free days as increasing a desire to learn (as opposed to stressful days reducing a desire to learn). Stress-free days were thought to have a more positive mood and greater enjoyment in learning. Alicia (girl, 9) stated, “[Learning] goes pretty well because you’re learning all this new stuff and you’re just having fun with it. And if you’re learning a lot of new things, you can start playing and when you’re finished, you can start going all that other stuff that you want.” Michael (boy, 9) expressed, “[New material] would be awesome because I like learning new things!” Thomas (boy, 9) added, “On a great day, it’s fun. You want to learn something and it’s a good day, so it means you’re going to have a good time.”

Focus and attention. Lastly, several students commented a tough time at school might bring about a lack of *focus and attention* in class. For example, Jake (boy, 9) explained that the school day felt much longer than usual. Susan added (girl, 9), “I would be sort of, just slouching there staring off into space thinking about other things. Not being connected and looking at the clock, like, ‘When is this going to be over?’” Dana (girl, 9) described, “It will still be okay. I’ll probably be thinking about something else though, like what happened in the day and so I probably won’t get the hang of it as quickly as I would on a good day. But I’ll still learn it pretty fast.” By contrast, stress-free days were more likely to produce greater attention for a longer period of time.

Susan (girl, 9) described the experience of ‘flow’ states on stress-free days, indicating a relationship between school stress, interest, and attention:

[Learning new material] sort of feels like it's a lot, but it's interesting and new so it's sort of cool. It's so weird how if I were in a class that had that they were talking about really cool rocks, minutes would pass by. It wouldn't seem like an hour it would've seemed, like, ten minutes.

Interestingly, all of the students in this study explained a tough time at school would have a negative effect on academic outcomes with one exception.

Alicia (girl, 9) explained that trying to learn new material on a stressful day is a method for stress relief:

[When I have a tough time at school], it turns out usually perfect. Usually pretty good because you're a little bit stressed out and then when you do all the work, then you feel a little relieved because you let off all that work and I feel a little bit better.

Although the clear majority of students described an impact of stressful and stress-free days on academics, several children also commented on their interactions with children. For example, Dana (girl, 9) argued a stressful day might lead children to temporary social isolation, “[On a stressful day], people probably won't sit by each other. They'll sit by someone new or something like that, but they won't talk to each other or anything. They won't be mean; they'll just kind of stay away from them.” Susan (girl, 9) and Alicia (girl, 9) added stressful days would probably have less patience when working with classmates. By contrast, students agreed stress-free days would improve relations with other children. Melissa (girl, 8) explained, “On a really good day, we all get along and we all get along and would be good.” No student commented on the impact of stressful/stress-free days on teacher interactions.

Daily Stress & Coping Patterns

In what ways do students attempt to cope with daily school stress? Students were asked to describe a recent stressful time at school how they attempted to manage the situation. A total of 18 stressful experiences were described (two students provided two different examples). Of those experiences, the primary sources of stress were grouped into the following: academics, peer conflict, friend in trouble, and unfair punishment. A list of coping strategies that students reported is presented in Table 4.

Coping with academic stressors. Four of the 18 stressful experiences as described by students addressed issues pertaining to academics. With one exception, each experience illustrated an event where the student faced a time constraint to complete an important academic task. The stressful situation at hand could be described as having a prospective temporal orientation; that is, the stressful experience itself is in anticipation of an undesirable outcome.

For instance, Jenny (girl, 9) explained she did not feel she had enough time to complete a class project and was concerned about her performance:

I had, like, two days left to glue all my stuff in and I had to do my dedication. So I was kind of stressed about that because I thought, ‘What if I get it wrong? What if I misspelled a word? What if I didn’t indent right? What if I didn’t skip lines the way [the teacher] wants me to?’

Thomas (boy, 9) and Julia (girl, 9) described time constraints with respect to the same class project Jenny referenced. These students varied in how frequently they experienced stress as a result of time constraints at school; however, each of the individuals reported using the same coping strategy: *Unassisted problem solving (UPS)*. From this view, students coped with time constraints by creating a strategic plan and implementing it without any assistance from others. First, students acknowledged that time constraints created a hurdle in their ability to complete the

task. This acknowledgment implies the use of 'proactive coping' tendencies which, according to Aspinwall and Taylor (1997), require a person to be able to anticipate a potentially stressful outcome in advance to prevent it or lessen its impact. Second, students expressed they would need to accommodate the time constraint in order to approach the desired task by taking personal control over the situation. Here, students needed to plan accordingly; for example, by organizing what parts of the project were most central to the task and self-regulating by avoiding distractions. For instance, Jenny emphasized she would need to complete the task before having play time, "I thought I could play a game, but then I thought it's worth just getting it done so tomorrow I can play a game." In this pre-action stage, students presumably recognized the desired outcome would be impacted by a change in effort (working harder or more efficiently). Thus, students believed they had some control over the situation. Third, students implemented the planned strategy. Indeed, each of the students successfully completed the task and UPS appeared to be effective in reducing stress.

The only other stressful experience involving academics was a response to a poor test grade. Brian (boy, 9) explained he had recently experienced stress after being given a low score on an in-class multiplication test. When asked about the situation, he stated it is uncommon for him to perform poorly on math tests. Brian attributed the outcome to a lack of preparation due to a baseball game the night before (a low likelihood of reoccurrence). Furthermore, he explained the reason for stress was because if he did not perform well on math tests, he would not be given an ice cream treat at the end of the school year. The stress appraisal could be interpreted as conflicting goals at school (test performance) and after school (baseball game); moreover, not receiving the ice cream treat could be compounded as a distracting consequence of the negative outcome. In contrast to the feeling of stress in anticipation of an undesirable event, Brian's stress

was a response to an undesirable outcome that had already taken place (I refer to as a retrospective temporal orientation). When asked how he might manage this tension, Brian reasoned nothing else could be done to change the outcome. I interpreted this strategy as *Letting Go (LG)* where the student freed himself from the moment of tension because (1) he did not expect the event to happen again in the future (low likelihood of reoccurrence); and, (2) he believed little could be done to change the outcome (low perceived lack of control).

Coping with peer stressors. The majority of reported stressful experiences at school involved verbal conflict with peers. In each situation, a student personally encountered a conflict with another individual.

Generally, students used a limited set of strategies to cope with peer stressors. As shown in Table 5, the most common coping strategies were UPS and LG. With respect to UPS, students explained they would attempt to verbally confront the source of stress (peer). This strategy would typically involve a conversation with the other student to seek some degree of resolution and “clear the air.” Jamie (girl, 9) concisely stated, “I usually get [conflicts] fixed. I don't know, I like, talk to them.” Elizabeth (girl, 8), whose stress involved a changing circle of friends, reported use of UPS strategies by going directly to the source of stress and seeking more information about the situation. She explained, “I try to get my friends back. I ask them what's happening and then I find out that some of my friends are telling them lies!”

LG was used as a coping strategy for relatively non-serious situations. Alicia (girl, 9) explained how she manages the occasional argument, “I start by letting everything go. You just take all the stuff off of you and just take a deep breath and just calm down.” LG seemed to include cognitive and emotional strategies to release stress by choosing one's battles, so to speak. In the examples students provided, LG appeared an adaptive coping strategy. For instance,

Michael (boy, 9) described a situation where other children on the playground were cheating at a game of kickball, “The other team won even though they cheated.” When asked how he responded to the outcome, he reasoned, “There was nothing else I could have done.” Rudy (boy, 8) used LG when he had an embarrassing moment in front of other kids, “I didn’t do anything. People probably forgot about it by now.”

Oscar (boy, 9) reported stress after being blamed for unintentionally hitting another child in the head with a ball:

I knew it was on accident so I wasn’t that like angry or I wasn’t that mad. I was, like, annoyed that [the other child] told on me for no reason. I just said it was on accident. We had to say sorry to each other.

Another coping strategy students used to manage peer conflict was APS-Child. Here, students attempted to manage stress by including another child. For example, Melissa (girl, 8) explained she went to a mutual friend who facilitated a conversation to address peer conflict, “I went to the bathroom with one of my friends. We talked about [the problem], and we kind of talked about it and everyone said why they [were telling secrets].” In other situations, students introduced the teacher for help (APS-Adult). A relevant pattern emerged with respect to the sequential order of coping strategies and problem solving methods. According to students’ explanations, they would first attempt to manage the situation problem solving on their own (i.e., UPS); however, if unassisted efforts were unsatisfactory or ineffective in fully coping with stress, then students would seek friends for emotional support (CS-Child) or invite friends and/or the teacher as problem solvers (APS-Child and -Adult).

Two of the peer conflict examples involved stressful experiences as a result of being bullied or maliciously teased. Although these fall under the category of peer conflict, they seem

to be qualitatively different by their degree of severity. Importantly, the two students expressed this harassment was recurring for them. They reported using *Aggression (AG)* coping strategies, including verbal intimidation and physical attacks. The students also sought friends and the teacher for emotional support. Colin (boy, 10) used CS-Adult to help endure a tough day. He added the teacher might defend him in his own behalf, implying APS-Adult as a strategy, “My teacher did not get mad [when I yelled at the kids who teased me]. She told me them to not make fun of my name, like, ‘Knock it off.’” Jake (boy, 9) explained he copes with bullies by seeking a trusting friend (CS-Child). His friend would help to avoid the potentially threatening environment during lunch/recess (*Avoidance; AV*) and use distraction techniques (*Distraction; DS*). Jake explained, “[A girl] and I went to the library after lunch. We would draw. So that would be getting away from [the bully].” Indeed, the two boys seemed to manage the immediate threats by reacting in an emotionally charged way (i.e., aggression) and seeking support from others later.

Coping when a friend is in trouble. Three experiences addressed situations where a student was concerned because a friend was having a problem. Each experience illustrated an event in which a friend was having a peer conflict. Jamie (girl, 9) provided an example where her friend was criticized by another girl.

Oscar (boy, 9) offered a similar situation:

[My friend] gets hit, like, every day by [another boy] on purpose. No one really ever sees him. He gets pretty angry. It’s stressful because they’re both my friends and they’re both hurting each other. [My friend] is really nice and that guy was being really mean to him, but [friend’s name] was still being nice to him.

The students highlighted a few different coping strategies. Each reported having used some form of *Support giving (SG)* where the individual would offer emotional support to the friend. For instance, Jamie responded to the situation by comforting her friend who had been criticized by another, “Me and [another friend] were telling her it's not true and don't worry about it and she believed us.” Marie (girl, 8) added, “I felt kind of sad [about the peer conflict] because they're friends. I've tried to talk to the person who is mostly sad about it.” Additionally, Oscar reported the voluntary use of APS-Child in which he offered his perceived power to act as a mediator between two friends, “I tell usually the other kid to stop it 'cause he's usually doing the most stuff to my friend. They usually listen to me because I'm the leader.”

Marie referred to the use of *Withdrawal (WI)* as a short-term coping strategy where she could leave the physical situation, “I try to just, like, grab my other friend who barely gets in fights and go play somewhere else.” Lastly, Jamie added LG may also be a method of coping when friends' problems would not be affected by her individual action (low perceived control), “Sometimes I don't do anything. Cause sometimes it's like, you can't fix it.”

Discussion

Adults should encourage students to describe what they experience at school. Inaccurate generalizations about student life can be worrisome because overlooking the smallest signals of stress can potentially lead to more serious complications, not only for the wellbeing of the individual but also others in the classroom. As demonstrated in this study, students in middle childhood already have a working understanding of what stress is and does. Students are able to identify how and where moments of tension occur (e.g., fast pace of curriculum, time constraints, peer conflict) as well as what students can do for relief (e.g., learning new material about favorite school subjects, design of learning activities, unstructured time, overcoming challenges). As

students begin to evaluate stressful situations, educators should be frank—even though the world can sometimes be unpredictable, taking time to think about how one responds to stress is important. Educators should help students to realize that everyday stress and overcoming challenges are a part of growing up. Students may respond well to a stress and coping metaphor akin to physical training: when we flexibly attempt to move past personal challenges one step at a time, we can strengthen ourselves physically and mentally for future challenges.

Self-efficacy may be compromised when students feel overwhelmed by multiple problems at once. Youngsters need guidance in time management and prioritization, and this guidance is a golden opportunity for educators. Teachers can help students recognize ways to break apart concurrent academic and social stressors into small segments. That way, children can focus on what they can and cannot do to change a situation. Working with students to analyze possible causes of stress promotes skills for adaptive thinking, and this may be addressed through attributional training as previously conducted in educational research geared toward achievement outcomes (e.g., Dweck, 1975; Ward-Struthers, Perry, & Menec, 2000).

Much of the stress that students experience at school is common but potentially scary from their perspective. Stress and coping in middle childhood involves certain trial-and-error. Sometimes responding to a problem in a certain way turns out to be effective, other times not. Educators must be sensitive in assessing and reacting to student coping efforts because they may be viewed as maladaptive. Teachers who listen, support, and assist when needed can have an impact on students far beyond the classroom.

Future Directions

Results point to several topics that deserve greater attention in future research. One topic is children's theories of stress. Most students in middle childhood understand causal connections

between stress and school behavior; however, they tend to view stress in purely negative terms even though adults can often see stress as a motivating part of growth and achievement. Another topic to consider is how young students can adaptively cope with daily stress when juggling multiple demands, as strengthening their ability to balance challenges is a critical part of growing up. Short- and long-term effectiveness of students' coping strategies must also be explored, as they may contribute to academic and social development.

Additionally, research should place a greater emphasis on students' social relationships as part of coping with stress in a particular way. Topics worth considering include the situations where students seek help from the teacher to manage social problems as well as when students experience stress because a friend is having a problem. Certainly cultural factors involving the stress and coping should be considered as the body of research expands (Aldwin, 2007; Compas et al., 2001; Lavee & Ben-Ari, 2008; Tolan & Grant, 2009). Finally, concerted efforts should be made to design practical ways for elementary school teachers and administrators to promote adaptive coping strategies with students through educational interventions.

CHAPTER 3

STUDY 2:

STUDENT STRESS AND COPING AT ELEMENTARY SCHOOL:

A MIXED-METHOD, TIME-ELAPSED STUDY

Abstract

What is it like to be an elementary school student? This mixed-method, time-elapsed study investigated the experiences of daily school stress and coping strategies as reported by students in grades 3-5 ($n = 65$). Each afternoon for eight weeks, participants completed the Stress-O-Meter, a newly developed self-report measure of daily school stress. Results reveal individual differences as well as the relatively stable nature of school stress. Semi-structured interviews provided deeper insight into stress and coping of students, highlighting the important relations among stress, emotional forecasting, and perceptions of day-to-day life at school. Students also illustrated how they previously coped with different examples of stress at school, addressing adaptive (and less adaptive) ways that youngsters try to manage their problems. Recommendations for future research regarding stress and coping with elementary student populations are made.

Student Stress and Coping at Elementary School: A Mixed-Method, Time-Elapsed Study

Stress is a part of daily life and not something limited to the adult world. Even at a young age, elementary school students encounter everyday challenges ranging from comprehension obstacles to peer conflict (Byrne, Thomas, Burchell, Olive, & Mirabito, 2011; Humphrey, 2004; Kraag, Zeegers, Kok, Hosman, & Abu-Saad, 2006; Lau, 2002; Lee & Cohen, 2008; McNamara, 2000; Sotardi, study 1). An important outcome of education is for students to learn healthy ways to cope with these moments of tension (Rohrkemper & Corno, 1988, Sotardi, study 1). To effectively facilitate this outcome, adults must have a clear understanding of what it means to be an elementary school student. Alas, adults and children often differ on what school is like. Students tend to report greater stress across school situations (e.g., discipline, performance, and peer conflict) than do teachers and parents (Anderson, Jimerson, & Whipple, 2005; Anderson & Jimerson, 2007; Bagdi & Pfister, 2006). Despite acknowledgment that these differences exist, literature on stress and coping in elementary school populations is small compared to older populations (Pienaar, 2010).

Having an accurate representation of student stress and coping in middle childhood is important for several reasons. School stress is a universal phenomenon. It affects students with varying degrees of severity in relation to an individual's background and exposure to stress. Teachers who are mindful of the stress that students experience (not only those viewed as "at-risk" but all students) can have immediate effects on school behavior as well as prolonged effects on health and adaptive capabilities. Too much stress can result in learning deficits, performance declines, conduct problems among peers, and classroom management issues for the teacher (Barrett & Heubeck, 2000; Lau, 2002; Omizo, Omizo, & Suzuki, 1988; Sharrer & Ryan-Wenger,

2002; Sotardi, study 1). Moreover, how young students view school life may have lasting effects on academic achievement and personal wellbeing.

It is necessary for educators to have a precise barometer of student stress. How much stress do students experience when at school? Does school stress fluctuate widely from one day to another? Are students able to reduce the effects of tension, or do these effects accumulate over time? The purpose of the current study is to gain a richer understanding of daily student stress at the elementary school level. I take into consideration four areas of importance. First, I take a bird's eye view of school stress by evaluating what the average student experiences and whether individual differences exist. Second, I examine school stress over time. Rather than one snapshot of school stress, I evaluate a segment of reported daily stress across eight weeks during the fall semester. Third, I investigate the link between day-to-day school stress and global appraisals of school stress. Specifically, I examine students' generalizations of their days at school, expectations of what tomorrow will be like (referred to as emotional forecasting), and whether these factors are related to repeated daily school stress. Lastly, I explore how students report coping with stress during four authentic situations at school: learning challenges, performance challenges, peer conflict, and teacher conflict. Through open discussion about daily school life, educators can gain a clearer understanding about what young learners need and how we might better serve them.

Method

Sample

Sixty-five students (38 girls, 27 boys) from grades 3-5 at a large public school in the southwestern United States participated in the study. Student age ranged from 7 to 11 years ($M = 9.52$, $SD = .99$). Representative of the school's population (according to NCES 2009-2010 data),

student ethnicity in the sample was predominantly Latino (93.8%). The school serves 500+ students in grades PK-5 in an urban, high poverty environment (as determined by 79.0% eligible for free- or reduced-lunch). Self-report data indicated the primary language students usually spoke at home was: (a) English only, 30.6%; (b) Spanish only, 16.1%; and, (c) Both English and Spanish, 53.2%. Grade level of participants included: grade 3 = 19 (29.2%); grade 4 = 20 (30.8%); and, grade 5 = 26 (40.0%). The classes themselves were comprised of two 3rd grades, one 4th grade, one 4th/5th combo class, and one 5th grade class. Recruitment included a total of 125 students, yielding a 52% response rate after obtaining parent permission and child assent.

Procedure & Instruments

The mixed-method design included two sources of data collection: (1) a self-report daily school stress instrument called the Stress-O-Meter; and, (2) a semi-structured interview related to student life and stress at school.

Stress-O-Meter. Stress-O-Meter (SOM) is a self-report instrument designed by the researcher to measure students' perceived daily school stress (see Figure 1). The 5-item scale asks students to reflect on the previous day (Item 1) and report how the present day was with respect to four common areas of school-related stress: (a) learning new material; (b) social interactions with peers inside the classroom; (c) social interactions with students at recess or during lunch; and, (d) social interactions with the teacher. SOM is a Likert-style scale using the following anchors: (1) Very good; (2) Pretty good; (3) OK; (4) Not so Good; and, (5) Not Good at All. As shown in Figure 1, the five anchors include text and smiley faces in lieu of numbers.

Students in this study completed SOM each afternoon during non-instructional time from mid-October to mid-December (a total of 8 weeks). The morning of the first school day of each week, the principal investigator (PI) distributed packets to participating students. Packets were

comprised of five stapled copies of SOM, each printed on a separate page. When receiving the new week's packet, students turned in to the PI completed SOM packet from the prior week. No data were collected for national holiday observations or three days that preceded the Thanksgiving holiday. Altogether, each student completed SOM a total of 39 times.

Based on the design of SOM, school stress could be assessed in two ways. First, items 2-5 represent indicators of school stress. Thus, the four indicators were evaluated independently when appropriate. Second, school stress was measured by the calculated average of responses to items 2-5, referred to as Composite School Stress (CSS) score. As a preliminary evaluation of validity as a single factor, Exploratory Factor Analysis (EFA) was performed on three randomly-selected occasions of collected data. For each analysis, a single factor emerged with the largest eigenvalue 2.42/2.64/2.86 that explained 60.5%/65.9%/71.4% of the total variance. All factor loadings were greater than .72/.75/.78. Cronbach's alpha coefficients of the CSS scores across all 39 data points ranged from $\alpha = .57$ to $.90$ ($M = .81$, $SD = .06$).

Because students were asked to complete SOM on 39 different occasions, incomplete data emerged from time to time when students forgot to complete the packet or were absent from school. Three students (4.6%) were removed from SOM analysis because they failed to turn in any packets across the 8 weeks¹. After removal, the median percentage of complete data was 86.6%. Hot-deck imputation was used to manage incomplete data among the remaining students (see Andridge & Little, 2010; Engels & Diehr, 2003; Myers, 2011). In this approach, item non-response occurs when a sampled unit (i.e., student) provides some information but fails to respond to all items (Kim & Fuller, 2004). Hot deck imputation is a procedure in which the value assigned for a missing item is randomly taken from a subset of the respondent's

¹ The students were third graders (two boys/one girl) from the same class. To gain a better understanding of why these individuals did not submit SOM packets, the PI asked the students individually. All three students explained they just forgot to complete the packet.

comparable or “donor” cases (e.g., cases with the same gender, age, etc.). Although more frequently employed in contrast to hot deck, other imputation methods such as listwise or pairwise deletion create major problems in that they reduce the effective sample size as well as introduce bias into estimates (King, Honaker, Joseph, & Scheve, 1998; Myers, 2011).

Hot deck imputation offers several advantages over other imputation approaches (e.g., Andridge & Little, 2010; Roth, Switzer, & Switzer, 1999; Siddique & Belin, 2008), and these advantages present the rationale for use in this study. The most clear advantage of this procedure is that it retains the complete sample of participants (in this study, $n = 65$). Students who provided a large set of data across eight weeks would otherwise be eliminated due to singular item non-response. Hot deck imputation in turn limits potential reduction in statistical power as a change in sample size. Another analytic strength of this method is that its imputations tend to be more realistic because the replaced data come from values that were observed elsewhere in the sample (and therefore replaced data will not be outside the range of possible values; He, 2010). The primary weakness of hot deck imputation is that it requires reasonable matches of donors to recipients; thus, finding good matches can be a challenge. This challenge is most clearly evident when imputing from a cross-sectional dataset since the donor must share some descriptive commonality with the case with non-response data. Under those circumstances, practitioners may use group means for hot deck imputation. One major reason why hot deck imputation was used in this study, however, was because of its time-elapsing design. Since each student was asked to provide responses for the dependent variable (i.e., CSS scores) a total of eight times, it was theorized that if a student failed to provide a response on one occasion, he or she would presumably have other responses available as highly comparable donors. As such, hot deck imputation was used as an effort to maintain the accuracy of student responses by randomly

selecting a donor dataset that included the same participant's existing data on previous or subsequent weeks. Further, to maximize donor dataset accuracy, imputation was calculated only for "same weekday" criterion. That is, if there was missing data for a Monday, only Monday data from other weeks would be considered to represent donor data.

Student Interviews. Students were individually interviewed about past school stress and coping efforts. Students were asked about four situations using a modified version of Band and Weisz's (1988) coping strategy interview procedure. Students were prompted with: "Kids sometimes feel stress when..." (a) ...they have a hard time learning something new in class; (b) ...they get a grade they're not happy with on a test or report card; (c) ...another kid says or does something that is mean; and, (d) ...they think their teacher might be upset with them. For each situation, students were asked to share a time when that might have happened for them. Students were asked to give details including what happened, how it felt, what they did and thought when it happened, and how things turned out. To maximize the reliability of the self-report, students were asked to describe each coping episode in detail and describe events that occurred only in the past year. If a student was unable to think of a time, the next question was asked. Once the stress and coping discussions were complete, students were then asked about global appraisals of school life. Questions included how frequently they tend to experience very good (very bad) days at school (Generalized Frequency of Stress) and what the next day would be like after having a very good (very bad) day at school (Emotional Forecasting)². Each semi-structured interview lasted about 10-12 minutes.

Data were analyzed using qualitative methods of constant comparison and analytic induction to identify common themes that emerged among the interviewed students (e.g., LeCompte, 2000; LeCompte & Preissle, 1993). A research assistant (trained in coping strategies

² In an effort to minimize reporting bias, questions about Very Good and Very Bad days were not consecutive.

and child development) and I independently coded and compared student transcripts to establish common themes. This was achieved first by familiarizing ourselves with existing literature specific to coping strategies reported by young people. To do so, we referred to categories proposed as primary coping strategies in Skinner et al. (2003) as well as a range of empirical examples of survey items and child and adolescent interview responses in previous research (e.g., Connor-Smith et al., 2000; Walker et al., 1997). We used these examples as a research-based coding guide for use in the current study (see also Sotardi, study 1). Selections from this coding guide are included in Table 1. Note we did not limit ourselves to the categories proposed in extant literature; rather, we used these categories as a reference. Whenever we felt a student response was a close match with an example from the existing references, we followed suit in the categorization. For example, if a student responded, “I really wanted to punch her”, we coded it as an “Aggression” coping strategy because it was similar to existing category examples. When we felt a coping strategy was not sufficiently represented in the existing literature, we created a new one. For example, we did not feel as though coping through “Attempting to Ignore” was a strategy clearly included in the extant references. As a result, we presented “Attempting to Ignore” as a method of coping as identified by the sample in this study.

Generally, coding and analysis included the following steps as guided by Saldaña (2011): (1) independent identification of key terms found within the transcripts based on our research-based example guide; (2) category creation when similar terms were present; (3) development of coding rules for the set of categories; (4) comparison of the categories by the two coders as a formative check of reliability; (5) adjustments and review for any discrepancies as a summative check of reliability; and, (6) interpretation of results using quantitative steps of analysis (e.g., frequencies) when appropriate.

Results

Perceived School Stress – Aggregate Scores

Analyses began with a bird's eye view of students' appraised school stress. Aggregate scores on Stress-O-Meter (SOM)—by combining all 39 data points for all individuals in the study—were evaluated. Table 6 presents descriptive statistics for Composite School Stress (CSS) and its four indicators (i.e., learning challenges; peer conflict inside the classroom; peer conflict at recess/lunch; and teacher-related stress). As shown, the average student reported a CSS score of $M = 1.97$ ($SD = .58$). In reference to the SOM anchors, a score of 1.97 roughly translates into a profile that days at school are “pretty good.” Mean scores also indicate the average student reported learning challenges as the least stressful indicator whereas peer conflict in the classroom was the most stressful indicator; however, there were no statistically significant differences among the four indicators, $F(3, 244) = .68, p = .57$. Indeed, stress is a part of daily school life for students. Although students encounter different stressful situations at school, the close association among the variables might suggest a bad time in one area of school life shapes either appraisals and/or behavior across stressful domains for that day.

Aggregate CSS scores and its four indicators were separately analyzed to determine whether they differed as a function of demographic characteristics. No statistically significant group differences were present on the basis of student gender, age, or primary language spoken at home. The only group difference in perceived school stress was associated with student grade level (see Table 7). Using analysis of variance (ANOVA), students in grade 4 reported significantly higher CSS scores ($M = 2.29, SD = .68$) than those in grades 3 ($M = 1.83, SD = .52$) and 5 ($M = 1.82, SD = .43$); $F(2, 59) = 4.94, p = .01$. The trend was similar for all four indicators as well.

Today-Yesterday Appraisal. In addition to CSS scores and its indicators, aggregate Today-Yesterday Appraisal (TYA) scores (combining the eight weeks of data collection) were analyzed. This variable was taken from all items in the SOM, evaluating the possible discrepancy between (a) how a student appraised a school day (i.e., from CSS score); and, (b) how a student appraised yesterday (i.e., from Item 1 completed the next day). TYA scores were therefore calculated as (Yesterday appraisal – Today appraisal). Positive coefficients indicate yesterday was viewed as more stressful than actually reported the prior day. Negative coefficients indicate yesterday was viewed as less stressful than actually reported the prior day. Although TYA scores are far from a perfect measure, it is a general estimate of how students interpret their school day from one day to the next.

Results showed a small discrepancy in how students appraised a school day from one afternoon to another ($M = -.09$). A negative coefficient suggests students tended to appraise a school day more positively when asked the *next* afternoon; such a change may be interpreted as an effort by the individual to “repair” stressful events of the day (as opposed to ruminate). This highlights the importance of collecting real time and recall data on the subject of school stress as appraisals can change over time. The only statistically significant individual difference in TYA scores on the basis of demographic characteristics was associated with student gender. Results using an independent-samples t-test showed girls showed little to no change in appraisal from one afternoon to the next ($M = .00$, $SD = .31$) whereas boys showed rather substantial change ($M = -.21$, $SD = .43$); $t(40.17) = 2.11$, $p < .05$. This gender difference suggests boys fluctuate more widely from one day to another in how they evaluate a school day. Additionally, this fluctuation tends to become less stressful the next afternoon, whereas girls are more unchanging in their

school stress appraisals over time. These trends may reflect important individual differences in how optimistic, pessimistic, and realistic boys and girls view school life.

Perceived School Stress – Trends over Time

Analysis proceeded with perceived school stress across 39 school days of collected data, beginning mid-October and ending in mid-December. Figure 2 presents day-to-day estimates in the average of student composite school stress scores (CSS; thick black line) as well as the four separate indicators of CSS: (a) learning challenges (blue line); (b) peer conflict in the classroom (red line); (c) peer conflict at recess/lunch (green line); and, (d) teacher-related stress (purple line). As shown in the graph, there was not substantial variability from day to day, as the vertical axis displays only a portion of the 1 (minimal stress) to 5 (maximum stress) Likert-style scale. Nor was there a linear or curvilinear trend over time, attesting to the sometimes erratic and unpredictable nature of school life.

Learning challenges appeared to be the lesser source of stress for students in this sample whereas peer conflict in the classroom was the greater source of stress. Noteworthy are days with the lowest and highest CSS average scores. The lowest CSS score (Day 25) coincided with the return of school after the Thanksgiving holiday break. The highest CSS score (Day 32) coincided with a day involving standardized testing. To determine whether one day of the week was more stressful than the others, ANOVA procedures were performed. Although mean scores showed Wednesday ($M = 2.06$, $SD = .73$) was the most stressful day for students, it was not significantly different from the other days of the week; $F(4, 305) = .29$, $p = .89$. Additionally, there were no differences in CSS scores from one week to another; $F(7, 493) = .34$, $p = .94$.

Degree of Fluctuation (DF). I sought to determine whether the standardized degree of fluctuation from one day to another (regardless of one's actual CSS score) would be an important

factor in assessing school stress over time. Degree of Fluctuation (DF) was computed as $DF = (\text{Today CSS score} - \text{Yesterday CSS score})$ for 39 data points. The mean of all DF computed variables was then calculated. The further away from 0, the DF score indicates greater fluctuation from one day to another. If the DF score is a positive coefficient, the student was more likely to have reported lower school stress the next day; if it is a negative coefficient, the student was more likely to have reported higher stress the next day.

Students in this sample were relatively stable in reporting school stress from one day to another ($M = .00$; $SD = .02$). The minimum DF score reported was $-.07$ and the maximum DF score reported was $+.07$. This suggests modest stability in perceived and recalled day-to-day school life. Regardless of how much school stress a student reported, it did not tend to fluctuate widely from one day to another. In theory, stability is important for students; however, stability can be dangerous for students who consistently experience high stress at school. How stable or unstable students view school life may be closely linked to how adaptive and resilient they are when faced with stress.

Daily versus Global Appraisals of School Stress

Estimates of student stress can vary between one's daily appraisals (i.e., how was my day at school today?) and global appraisals (i.e., how do my days at school usually go?). This variation was explored in order to assess whether students' day-to-day estimates of school stress (using CSS scores) were related to generalized estimates about very good (very bad) days at school based on interview responses.

Global Frequency of Very Good (Very Bad) Days. Students were first asked to estimate how often they experienced very good days at school, selecting from three possible choices: most days, some days, and not too many days. These were dummy-coded as 1, 2, and 3,

respectively. ANOVA procedures were performed using CSS scores as a dependent variable and Global Frequency of Very Good Days (GF-VGD) as an independent variable. Students who reported very good days at school on most days were associated with lower CSS scores compared to those who reported some days and not too many days; $F(2, 59) = 8.06, p < .001$. This F -score was associated with a very large effect size ($\eta^2_{\text{partial}} = .22$) based on criteria estimated by Cohen (1969; see also Richardson, 2011) in which small = .01, medium = .06, and large = .14.

Students were then asked to estimate how often they experienced very bad days at school, selecting from the same three choices. Results for Global Frequency of Very Bad Days (GF-VBD) showed the reverse pattern. Students who reported very bad days at school on most days were associated with higher CSS scores compared to those who reported some days and not too many days; $F(2, 59) = 6.89, p < .01, \eta^2_{\text{partial}} = .22$. These findings demonstrate a very strong association between students' daily and global appraisals of school life. Since there were significant group differences for GF-VGD and GF-VBD on the basis of CSS scores, I sought to determine whether one variable was more closely associated with CSS scores. Using 3 x 3 factorial ANCOVA procedures (including student grade level as a covariate), GF-VGD was still a significant predictor of CSS scores; $F(2, 53) = 4.60, p < .05, \eta^2_{\text{partial}} = .15$; however, GF-VBD was no longer significant; $F(2, 53) = .26, p = .37$. Thus, global appraisals were closely associated with daily appraisals of school stress when analyzed separately; when analyzed together only, GF-VGD was more closely related to CSS scores for students in this sample.

Global Frequency and DF. I sought to examine whether one's fluctuations in school stress from one day to the next (Degree of Fluctuation, DF) were associated with global appraisals of school stress. ANOVA procedures were performed using DF scores as a dependent

variable and GF-VGD as the independent variable. Results showed that DF varied among students' appraisals of very good days; $F(2, 59) = 3.56, p < .05, \eta^2_{\text{partial}} = .11$. Post-hoc analysis using Tukey HSD revealed students who reported very good days not too many days were associated with significantly *less* day-to-day stress fluctuation than those who reported most days and some days. ANOVA procedures were also performed using GF-VBD as the independent variable; however, no significant differences emerged. This suggests students who rarely had very good days at school went from one day to the next with less variability in release from school stress.

Emotional Forecasting. In this study, emotional forecasting reflects what a student thinks tomorrow will be like. It is an important global appraisal, demonstrating how students view the stability and direction of school life. Here, students were asked to describe whether very good (very bad) days at school would be followed by a day that is better, the same, or worse. These were dummy-coded as 1, 2, and 3, respectively.

Responses were diverse and their explanations insightful. One student (girl, grade 5) explained, "Sometimes, you have to worse days in order to have great days." Another (boy, grade 5) emphasized a sense of optimism, "If you have a good day, it's going to stay with you. If you have a bad day, you'll get over it and start over." A student (boy, grade 4) who forecasted very good days would be worse the next day and very bad days would be the same the next day commented, "Once you've taken all your heaviness, you have to wait until it comes back."

ANOVA procedures were performed using CSS scores as the dependent variable and Emotional Forecasting after Very Good Days (EF-VGD) as the independent variable. Results showed students who reported the day after a very good day would be better had lower CSS scores when compared to those who reported the next day would be worse; $F(2, 51) = 4.34, p <$

.05, $\eta^2_{\text{partial}} = .15$. ANOVA using Emotional Forecasting after Very Bad Days (EF-VBD) as the independent variable was also performed but results were not statistically significant. Although EF-VGD was the only statistically significant independent variable in these analyses separately, I performed a 3 x 3 factorial ANCOVA (including student grade level as a covariate) with CSS scores as the dependent variable using EF-VGD and EF-VBD as independent variables. Not unexpectedly, a main effect for EF-VGD showed significant differences for CSS scores; $F(2, 44) = 5.20, p < .01; \eta^2_{\text{partial}} = .19$. Surprising, however, an interaction effect emerged with EF-VGD and EF-VBD; $F(2, 44) = 3.51, p < .05, \eta^2_{\text{partial}} = .14$. Figure 3 presents the interaction effect.

Results showed that students who forecasted that very good days would be *worse* the next day and very bad days would *stay the same* the next day were associated with the highest CSS scores ($M = 2.96, SE = .27$). By contrast, students who forecasted that very good days would be *better* the next day and very bad days would be *better* the next day were associated with the lowest CSS scores ($M = 1.63, SE = .16$). Note there were no estimable means for Emotional Forecasting in students who believed (a) very good days would be the same (or worse) the next day; and, (b) very bad days would be worse the next day. Together, results show emotional forecasting was strongly associated with daily school stress. Most troubling were the students who tended to view good days as temporary and bad days as stable. These individuals reported greater school stress from one day to another. From this perspective, very good days are events of luck or happenstance instead of expected or predictable events. By contrast, students who believed tomorrow could always be better tended to experience lower school stress. From this perspective, an expectation that tomorrow could be better implies greater flexibility that kids can bounce back from bad days.

Coping with Learning Challenges

Students were asked to describe a recent time when they had a difficult time learning something new in class. Of the total sample, fifty-six students (86.2%) provided an example. Students described a learning challenge, how they responded (or did not respond) to the challenge, and how things turned out.

Student examples were categorized as: (a) comprehension difficulty specific to the subject of mathematics (66.1%); (b) not knowing how to properly complete a task or activity (28.5%); and, (c) communication difficulty due to limited English proficiency (5.4%). Although not prompted, nearly all of the students (94.6%) provided an example in which they successfully overcame their respective challenges. Therefore, to maintain consistency in understanding these examples, analyses of the coded data address situations where—according to students—struggle was turned into achievement.

Assisted and unassisted problem solving. One clear pattern that emerged was whether students attempted to solve the problem by either working it out on their own (37.7%) or seeking help from a classmate or adult (62.3%). Preliminary results using chi-square (χ^2) showed regardless of the type of learning challenge, students in grade 3 were more likely to work alone and less likely to seek help from others when confronted with a learning challenge than were their grade 4 and 5 counterparts; $\chi^2(2) = 7.45, p < .05$. This grade difference may be related to age and/or developmental differences. Literature suggests middle childhood is associated with a developmental progression in coping strategies where children are more likely to seek support from peers and other adult figures (Zimmer-Gembeck & Skinner, 2011). It was expected that students who sought help from classmates and adults would be those who needed extra support to navigate their learning challenges and more frequently experience learning-related stress along

that process. Indeed, a univariate GLM (including student grade level as a covariate) showed students who successfully overcame learning challenges by working alone were associated with lower CSS scores ($M = 1.68$, $SD = .40$) compared to those who sought help from others ($M = 2.03$, $SD = .68$); $F(48) = 4.01$, $p < .05$, $\eta^2_{\text{partial}} = .09$.

Students from all three classes explained they were instructed to follow a procedure if they faced a learning challenge. First, they should attempt the task alone. Next, they should go to a partner if they were still stuck. Last, they should ask the teacher if the partner was unable to help. One student (boy, grade 3) commented on the deliberate decision needed to cope with a learning challenge, “I asked myself, ‘What do I do? Do I wait and ask for help? Or what...’” Because seeking help from others involved different levels of action, it was important to evaluate these coping strategies more closely. Reported coping strategies were categorized into the following groups: (a) Unassisted Problem Solving (UPS; 37.7%); (b) Assisted Problem Solving from Adults (APS-Adult; 13.2%); (c) Assisted Problem Solving from Children (APS-Child; 13.2%); and, (d) Assisted Problem Solving from Both (APS-Both; 29.2%).

Interviews provided deeper insight into coping with learning challenges. Students who successfully overcame learning challenges by attempting to solve the problem independently (UPS) expressed a sense of academic self-efficacy. For example, one student (girl, grade 3) explained, “When I get stuck, I try my best. If I don't know [how to do it], I just try it or guess... I think that keep trying will pay off.” Another student (girl, grade 4) added the importance of recognizing and selecting skills she prefers in order to overcome a math challenge, “When I didn't get the new strategy for multiplication, I took notes. But I don't really use it. Instead I use ones I like, like distributive property and algorithm place value. That usually helps.” Although some students reasoned that working alone was because they did not need the assistance from

others, others justified UPS because alternative sources of help would not be perceived as beneficial. For instance, one student (girl, grade 5) described, “The teacher just tells me to look it up. Kids don’t help either and the teacher just gives me hints and that stresses me out.” Being able to recognize whether a resource will or will not be helpful is adaptive and an important part of overcoming learning challenges.

Similarly, students who sought help only from either classmates or adults seemed rather strategic in doing so. Often it appeared as though they were avoiding possible barriers in which the source would create more problems than help the goal of learning new material. Students who went only to the teacher for help (APS-Adult) explained that classmates were sometimes unclear or unable to explain something. For example, one student (girl, grade 3) concisely explained, “Sometimes friends are helpful. Sometimes not so much.”

One student (girl, grade 4) described her hesitation in seeking help from the teacher when classmates are not helpful:

Other kids just say ‘Just work it out.’ I sometimes want to ask the teacher but sometimes that doesn't always work because maybe [teacher’s name] has already gone over it a few times.

Other times, classmates were deliberately uncooperative or unwilling to offer help. This creates important moments of tension for students in the classroom.

One student (girl, grade 4) explained:

Whenever I get stuck, I ask the teacher for help and sometimes I’ll come in during lunch. The table captain doesn’t help on purpose. And then he gives you a bad score for not participating.

This can be interpreted as a roadblock in a student's path to effectively learning new material, one that may reduce one's motivation to put in effort needed to persevere and introduce peer problems as well.

By contrast, students who went only to classmates for help (APS-Child) explained that classmates were helpful as well as supportive in the learning process. One student (girl, grade 3) explained, "When I'm stuck on math, usually I ask my friends because they are there for me." Sometimes students sought help from classmates because the teacher was confusing or frustrating. For example, a student (girl, grade 5) reasoned, "I asked the teacher for help but I didn't get it, so I asked a friend and that helped because he already had one of the examples and knew how to do it." This suggests that classmates who are cooperative and willing to help others are important sources in the process of overcoming learning challenges; however, if classmates are resistant and are unwilling to help others, then the process of overcoming learning challenges may be obstructed.

Lastly, students who sought help from classmates *and* teachers (APS-Both) voiced an effective way of integrating the two sources of help in order to overcome their respective learning challenges. One student (girl, grade 5) commented, "I went to [the teacher] and she taught me how to do it and why. Then, I practiced with other kids." This method addresses the importance of independently acquiring the proper skills needed to perform a task and then strengthening those skills through rehearsal with other students.

Univariate GLM was performed to explore the impact of the four defined coping strategies (i.e., APS-Adult, APS-Both, APS-Child, and UPS) on student stress from learning challenges (the CSS indicator). There was a statistically significant difference in average learning-related stress for the coping strategies: $F(3, 46) = 3.11, p < .05, \eta^2_{\text{partial}} = .17$. Means

comparisons for APS-Child ($M = 2.39, SD = 1.10$) was associated with significantly greater learning-related stress when compared to UPS ($M = 1.68, SD = .40$). APS-Adult ($M = 1.79, SD = .44$) and APS-Both ($M = 1.99, SD = .53$) did not differ significantly from the other coping strategies. The large effect size (.17) brings attention to the strong association between how students attempt to manage learning challenges and average daily levels of learning-related stress at school.

Altogether, results suggest working alone and working with others are both effective ways of coping with learning challenges. Additionally, the coping depends on students' self-efficacy to handle the problem alone (i.e., "Can I figure this out on my own?") as well as environmental circumstances (i.e., Will the person I ask for help create more confusion and/or social stress?). Some students may find that seeking help from others peers poses a risk. Asking a partner for help may introduce social stress and therefore this kind of strategy may be a last-resort coping strategy for some students.

Coping with Performance Challenges

Students were asked to describe a recent time when they felt as though they had received an unsatisfactory grade on a test or report card³. Of the total sample, 51 students (76.5%) provided an example. Students described a performance-related event and how they responded to the outcome. Situations provided by students involved report cards (31.4%) and tests (68.6%).

Causal attributions. Students differed in how they evaluated the unsatisfactory performance outcome (see Table 8 for a description of the reported coping strategies). One key difference was whether or not the student had critically assessed the causes that may have led to the undesirable outcome. Some students (68.6%) explained that after receiving the grade, they

³This does not indicate actual achievement; it describes situations in which the student was dissatisfied with his/her performance. For a few individuals, this dissatisfaction involved incorrectly answering *one* item on a test.

had asked themselves: *Why did this happen?* consistent with attribution theory (Weiner, 1986). Implicit in the nature of tests and report cards was a probability of reoccurrence; that is, the student would probably encounter a test or report card again in the future so understanding and controlling the causal factors would reduce the likelihood of receiving an unsatisfactory in the future. By making a causal attribution, individuals were analyzing their own action or inaction (e.g., “I did not participate enough in class”) and situation (e.g., “I just had a bad day”). Students who considered causal factors alluded that some change (either situation or self) was need to reduce the likelihood of receiving an unsatisfactory grade in the future.

One student (boy, grade 4), offered insight onto how he views poor test performance:

When I do poorly on a test, I get mad and sad and think, ‘This is my fault because my brain didn't work.’ [...] It’s hard dealing with a bad grade but you have to see the mistake first. You can’t learn without making mistakes.

By contrast, others (31.4%) failed to evaluate the situation at all. These students focused on negative emotions associated with the outcome and the immediate consequences that might come to fruition (e.g., punishment by parents, disappointing the teacher). This coping strategy was categorized as Worrying about Consequences (or WAC).

Specific and non-specific planning. Students who had made causal attributions about the unsatisfactory grade typically possessed a plan for action or at least simply acknowledged that change was necessary to improve performance in the future. Some students reported they would need to do something differently in the future to perform better but ultimately did not report a specific plan in doing so. A common expression was, “I knew I would need to work harder.” This way of responding to performance challenges is a coping strategy here referred to as Acknowledging Change in Self is Needed (ACSN; 23.5%). Acknowledging change may be

considered as a part of the beginning stage of problem solving. Other students acknowledged that change was needed *and* had already begun implementing specific problem-solving strategies, either doing so on their own (e.g., evaluating mistakes and studying more; UPS, 23.5%) or with the assistance of adults (e.g., ask for help; APS-Adult; 7.8%).

For others, reported coping involved inaction. The decision *not* to change one's behavior was often related to a causal belief that the performance outcome was unexpected and due to rare circumstances (e.g., having a bad day). This coping strategy is here referred to as Expecting Situational Change (or EXSC; 13.7%). Students who decided not to make any behavioral changes expressed situations would likely change (and presumably to improve) on future performance tasks. There were no individual differences among the five coping strategies on the basis of student demographic information.

ANOVA procedures were performed to determine whether students' ways of coping with an unsatisfactory grade were independently related to CSS and DF scores. No statistically significant relationships were present. This may be because no CSS indicator directly measured performance-related daily school stress. Nevertheless, results using χ^2 provided insight into students' coping strategies when they were confronted with an unsatisfactory grade. The context itself (whether the performance challenge came from a test score or report card) was an important determining factor. Under test situations, students more frequently responded using an array of coping strategies (namely ACSN, EXSC, and UPS); under report card situations, students more frequently responded with worry (WAC); $\chi^2(4) = 10.64, p < .05$. It may be that test situations offer students more opportunities for "redemption" (e.g., retaking the test, earning extra credit, doing well on future tests that would likely offset the unsatisfactory grade, etc.). As such, coping strategies reported under test situations shared a change in self or situation. Report

cards, however, were often interpreted as final and global measures of performance. Their limited reoccurrence and perceived lack of control were more frequently associated with emotional distress.

Coping with Peer Conflict

Students were asked to describe a recent time when another kid at school had said something that bothered them. Of the total sample, forty students (61.5%) provided an example. Students described a peer situation, how they responded (or did not respond) to the situation, and how things turned out. Student examples were categorized as: (a) Minor annoyances (i.e., disruptions and using foul language; 20.0%); (b) Bossy behavior (i.e., demanding that another do as requested; 7.5%); (c) Malicious teasing (i.e., saying something that would be intentionally hurtful⁴; 52.5%); and, (d) Unfair play (i.e., not following rules; 20.0%). There were no individual differences among the reported peer situations on the basis of student demographic information.

Personal threat. Previous literature (e.g., Sotardi, study 1) has shown that elementary school students sometimes conceptualize stress in terms of personal threat. Taking this into consideration, whether or not a student felt the peer situation was a personal threat was examined in this study. One student (boy, grade 3) identified personal threat as a time when “there is a kid [what] tries to push me over the edge.” Of the 40 total examples provided, 24 students (60.0%) reported the peer situation as involving some personal threat whereas 15 students (40.0%) reported the peer situation as non-personal. Students more frequently reported minor annoyances and unfair play as non-personal, whereas teasing another student and bossy behavior were personal threats; $\chi^2(3) = 32.39; p < .001$. Moreover, students who appraised peer conflict

⁴ It is noteworthy that many students in this sample expressed that there was absolutely no bullying at school and that such behavior would not be tolerated by anyone. For students, malicious teasing behavior seemed to be interpreted as a different qualitative issue from bullying.

as involving personal threat were more frequently those students who believed a very bad day at school would be the same or worse the next day; $\chi^2(2) = 7.24, p < .05$. It is important to consider the nature of the peer conflict as well as one's appraisals of whether the conflict is threatening and global appraisal of school life, as situations and individual appraisals would presumably have an impact on coping strategy. If a peer problem is viewed as intentional, then a need to reduce the tension may be more urgent.

Type of peer conflict. Coping strategies varied when students attempted to manage stress from peer conflict (see Table 9 for a description of the reported coping strategies). There were no group differences in coping strategies on the basis of any student demographics. Students responded to peer conflict at school in the following ways: (a) Aggression (15.0%); (b) Demanding change (25.0%); (c) Calling for backup (22.5%); (d) Attempting to ignore (25.0%); (e) Withdrawal (5.0%); (f) Letting go (2.5%); (g) Cool down (2.5%); and, (h) Helplessness (2.5%). Sometimes students explained why they responded to peer conflict in a certain way. For example, one student (girl, grade 3) prefers to withdraw from peer conflict because confronting the issue could create further problems:

If someone is mean, I don't want to stand up for myself yet. I feel like they're gonna bully me back, and I don't want that. [...] Sometimes I'll be mean to her and then sometimes she'll be mean to me so that way I don't want her to tell on her because she might say that I was bad with her too and then I'll get in big trouble with my Mom. So that's why I don't want to stand up for myself yet.

Another student (girl, grade 5) expressed that trying to ignore a problem was necessary so that she could later move on:

If you know a person is mean you're going to ignore them. And maybe you didn't know, because they didn't know it happened and then the next day you just let it go.

Analyses were conducted to determine whether a relationship existed between students' reported coping strategies and CSS scores, scores on peer-related CSS indicators (i.e., inside and outside of class), and DF scores. Using ANOVA procedures⁵, results showed no differences in individual peer-related CSS indicators or DF scores as a function of coping strategies for peer conflict; however, students' overall CSS scores did vary as a function of reported coping strategies; $F(4, 30) = 2.99, p < .05, \eta^2_{\text{partial}} = .29$. Post-hoc analysis using Tukey HSD revealed students who responded to peer conflict using Aggression ($M = 2.39, SD = .51$) were associated with higher reported levels of school stress when compared to those who responded to peer conflict using Withdrawal ($M = 1.22, SD = .07$). The very large effect size indicates a strong association between students' CSS scores and reported coping strategy when confronted with peer conflict. This indicates students with elevated school stress on average tended to express relatively greater urgency and negativity in responding to personally-threatening peer conflict.

Clear resolution. Another important issue regarding peer conflict is whether or not a situation is resolved. In this study, students reported how peer conflicts ended. Of the 40 student reports, 11 situations (27.5%) included clear resolution, defined as whether or not the outcome reduced stress for the individual involved. In comparison, 29 situations (72.5%) included no clear resolution. A clear resolution to peer conflict was more frequently associated with coping strategies that involved Call for Backup and Demand Change; in contrast, no situations in which

⁵ The 3 students who reported Letting Go, Cool Down, and Helplessness as a coping strategy were excluded from statistical analysis due to insufficient group cell size.

students used Aggression, Attempting to Ignore, and Withdrawal led to clear resolution; $\chi^2(4) = 14.69, p < .01$.

The one student (boy, grade 4) who responded to peer conflict through Helplessness did not have clear resolution. During his interview, he described a history of ineffective coping strategies through Demanding Change and Calling for Backup:

Other kids are really bossy at my table. I tell them to stop but they don't listen.

When I was little I couldn't stand it, I was so stressed. And I couldn't control it and I just ran out of school. I still feel that way sometimes. And no teachers care about my problems anymore.

In summary, the type of peer conflict, one's appraisal of the conflict, and reported coping strategy were related to overall school stress sampled over 8 weeks. Students who responded to peer conflict using Withdrawal were associated with lower overall school stress. On the surface, this appears to imply that getting away from a heated situation could be an effective method to manage peer conflict. However, Withdrawal did not materialize as being any more effective in resolving a situation than Aggression. This highlights the importance of considering not only the coping methods under different stressors, but also the short- and long-term effectiveness of those coping methods. The advice that children should respond to upsetting social situations by "ignoring the person" may be only advantageous in the immediate context and not long-term. In fact, coping strategies that reduce moments of tension only in the short-term could lead to greater stress (and potentially aggressive action) if the situation were to persist over time. One student (girl, grade 5) finished, "If someone says mean things to me, I ignore it. But if it continues, I don't know what to do..."

Coping with Teacher Conflict

Students were asked to describe a recent time when they felt like the teacher might have been upset with them. Of the total sample, thirty-three students (50.8%) provided an example. Students described a situation, how they responded to the situation, and how things turned out. Student examples were categorized as: (a) being disciplined by the teacher (66.7%); and (b) having disappointed the teacher in some way (33.3%). For example, one student (girl, grade 3) commented, “My teacher is upset when I make bad choices. She gets upset when I don’t think outside the box.” There were no individual differences among the reported teacher situations on the basis of student demographic information.

Analysis examining how students coped with teacher challenges indicated most students attempted to ignore the situation (80.0%). In disciplinary situations, ignoring the situation was frequently due to a fear of questioning the teacher’s authority and being viewed as disrespectful. One student (boy, grade 4) explained, “If I do something the teacher doesn’t like, I don’t do anything. It would make [the teacher] more mad if I asked about it.” Another student (girl, grade 4), “I thought about talking to [the teacher] but, I mean, she’s my teacher.” Additionally, a student (girl, grade 4) explained, “If he’s upset with me, I keep it to myself. It’s safer there. [...] If the teacher is having a bad day, I worry about him.” 20 percent of students explained they asked the teacher about the situation (UPS) to understand and gain insight about the problem. One student (girl, grade 4) explained, “I ask the teacher if she is mad. She tells us she just wants us to try harder.” An independent-samples t-test was performed to determine whether CSS scores and student stress from teacher conflict (the CSS indicator) differed separately as a function of coping strategies with teacher conflict. Although CSS scores were not statistically significant, results showed that students who had asked the teacher for more information about the situation reported lower day-to-day student stress from teacher conflict ($M = 1.72$, $SD = .24$) compared to

those who tried to ignore the problem ($M = 2.09$, $SD = .77$); $t(30.86) = 2.14$, $p < .05$; $\eta^2_{\text{partial}} = .04$.

Discussion

Using a stress and coping perspective, students from grades 3, 4, and 5 shared a portion of their lives at school through daily self-report measures over eight weeks and participated in an individual interview. For most students, everyday life at school was portrayed as involving mild-to-moderate, relatively stable levels of stress. Generalizing daily stress reports from this sample should be taken with great caution, however. Students in this sample often face adversity at home (e.g., poverty, language barriers, etc.) but also attend an academically excelling school that provides them a great deal of support. Reported school stress will likely vary as a function of individual students as well as local communities and educational settings.

Results highlight the need for young learners to be flexible in managing a variety of school problems. Educators should take note that in addition to the challenges elementary school students face while performing academically, they also experience stress when interacting with classmates and sometimes with the teacher. It is also important to recognize that students who have stress in one area of school life are likely to have stress in other areas of school as well. The close relationships among different sources of stress—learning challenges, peer-related conflict inside and outside the classroom, and teacher conflict—emphasize that from a young age, students must develop a broad set of coping strategies. Ideally, these strategies need to be effective both in resolving problems for the short- and long-term.

On the surface, such demands can be taxing; however, adults can support young students by framing moments of tension as opportunities for growth. Educators can strive to foster an environment where students realized that learning—what is taught in the formal curriculum as

well as how to work well with others—is a lifelong process. Guided discussion about real-life school problems openly but with sensitivity shows empathy and compassion. Educators who spend 5-10 minutes every morning to check in with a class in order to get a feel for how students are feeling create a valuable dialogue about school stress while conveying warmth and caring as an adult. On such a platform, helping students to critically evaluate stressful situations is an important first step. Focusing on questions such as whether the stressful situation is important and personally relevant, something that will occur again, and a controllable state are beneficial ways to empower children through cognitive and emotional organization. Consistent with a causal attribution perspective (e.g., Aspinwall & Taylor, 1997; Weiner, 1986, 2010), helping students to think critically about the causes of stress can give rise to feelings and actions which influence future stressful events and methods of coping. In many situations, being able to anticipate problems can give students an important sense of control and stability over their lives because they are more prepared to avoid or at least lessen the potential impact of stress. Although there is no singular “right” way to respond to each stressor, being able to assess a situation equips students with adaptive skills so they can respond to a present struggle as fuel for success in the future. Developing these skills may be especially valuable for students who face adversity elsewhere in their lives.

Educators are faced with a challenge, however. Because students often experience stress that occurs behind-the-scenes (i.e., when an adult is not present), educators tend to realize only outcomes of ineffective rather than effective coping strategies. To reinforce positive action (and sometimes inaction), educators can use class meetings as times to communicate what was stressful for students and how they successfully resolved the problem. As an example, students in middle childhood are sometimes unsure whether or not they should seek help from an adult or

try to fix a situation alone. For certain students and situations, it is a delicate tightrope when a person is unable to solve the problem alone but seeking assistance from others can be perceived as socially or emotionally risky. Many teachers are effective in imparting flexible problem solving skills in learning settings; in a similar vein, talking about flexible coping strategies in academic and social settings is an overlooked but critical part of a comprehensive education.

Importantly, how students respond to different stressors at school appears to be shaped not only by the specific context but also by how they view school life in a more global sense. How frequently students report having very good days at school (regardless of actual daily reports) as well as what they *anticipate* tomorrow will be like are related to daily stress reports and coping strategies. In the current study, most students looked back on yesterday in more positive light. Those who reported consistent struggle and very few good days at school tended to have stability in their lives at a higher stress level. In comparison, for individuals who tended to view their lives in a positive way, the stability of everyday life appeared to be comforting. That adults fail to acknowledge the hurdles of everyday student life and portray elementary school as a completely stress-free time may be even more upsetting for students who already are under more chronic stress. Thus, educators who clearly frame stress in a way that accepts the authenticity of school life but also create opportunities for potential success are likely to guide students toward resilience and adaptive coping.

CHAPTER 4

STUDY 3:

STUDENT STRESS IN ELEMENTARY SCHOOL: TEACHER REFLECTIONS AND RECOMMENDATIONS

Abstract

To gain a better understanding of students' stress and coping at school, this qualitative study investigated student stress from the perspective of an elementary school teacher. What do teachers see as common sources of stress for children? If possible, what can teachers do to assist students in managing their daily problems in healthy ways? Semi-structured interviews with public school teachers in grades 3-5 ($n = 8$) discussed the moments of tension that students tend to experience, including stress that emerges from learning activities, peer concerns, performance anxiety, and curricular constraints. Teachers also proposed different ways that new teachers can improve classroom practice by addressing school stress and coping strategies in different ways.

Student Stress in Elementary School: Teacher Reflections and Recommendations

Elementary school teachers play one of the most important roles in children's lives. They are often the first adults with whom young people interact aside from family members. Teachers equip students with a perspective of what the world is like outside of the home. Further, they can impact how children are socialized with same-age peers and non-family adults. In some circumstances, elementary school teachers can be the most positive and encouraging individual shaping how a student learns to solve problems.

Young students must learn how to solve problems in adaptive and healthy ways, whether these include academic pressures or social conflict. Everyday moments of tension affect students with varying degrees of severity in relation to their individual background and exposure to stress. Accumulation of daily stress can have immediate effects on school behavior as well as prolonged effects on health and adaptive capabilities. Too much stress can result in learning deficits, performance declines, conduct problems among peers, and classroom management issues for the teacher (Barrett & Heubeck, 2000; Lau, 2002; Omizo, Omizo, & Suzuki, 1988; Sharrer & Ryan-Wenger, 2002; Sotardi, study 1, 2). Over time, stress can influence academic achievement as well as social and emotional development (Agrawal, Garg, & Urajnik, 2010). Because an important outcome of education is to help students learn healthy ways to cope with stress at school (Rohrkemper & Corno, 1988), the responsibility of elementary school teachers for students' coping development is clear and deserves greater attention.

In this study, I address elementary school students' stress and coping from the teacher perspective. I established two objectives to better understand how educators help students acquire important skills in stress management. First, I explored what a sample of teachers see as common sources of school stress for students in their respective classes. Second, I sought out

practical advice about how a new elementary school teacher might be able to incorporate for classroom practice. Specific research questions that guided the study were:

1. What do teachers identify as common sources of school stress in students?
2. What can educators do to help students manage school stress?

Becoming aware of what teachers identify as common sources of school stress for students will provide insight into what they see (and do not see) as well as how student stress is thought to impact learning opportunities and social relationships. Incorporating this knowledge with valuable suggestions for teachers' professional development will shed light on how educators can better meet the psychological and physical needs of elementary school students.

Method

Participants and Setting

Eight elementary-school teachers (7 female, 1 male) from grades 3-5 volunteered to share experiences with student stress at school and what educators can do to help students manage school stress in healthy ways. On average, participating teachers were experienced educators ($M = 14.50$ years, $SD = 8.02$). One teacher was in her first year of teaching whereas the others had been teaching elementary school between 10 to 28 years.

Teachers were recruited from two, large (at least 500 students) public elementary schools in southern Arizona. Schools differed widely in student composition and setting. Three teachers were recruited from School A, which serves K-6 students in a suburban, high socioeconomic status (SES; 13.8% eligible for free- or reduced-lunch) and predominantly Caucasian setting (CCD public school data 2009-10 year; National Center for Education Statistics). By contrast, School B serves PK-5 students in an urban, low SES (79.0% eligible for free- or reduced-lunch), and predominantly Latino setting. Despite these differences, both Schools A and B have

consistently been rated as “excelling” schools according to the state’s achievement profile system, which indicates student performance significantly above state performance goals and a significant number of students who exceed testing standards. My intent in recruiting these schools was to identify teachers from high-performing learning environments from diverse school settings.

Data Collection & Analysis

Participant interviews were the primary source of data collection for this study. Each interview took place in the teacher’s classroom and lasted approximately 40 minutes. An interview guide (Patton, 2002) structured the conversations. First, discussion included what teachers saw as primary sources of school-related stress that students in their respective classes tended to experience. Second, questions focused on teachers’ perceived impact of student school stress on academic and social behavior. Third, teachers were asked to share any advice they could provide to a new teacher with regards to effectively helping elementary students cope with school stress. All interviews were audiotaped and transcribed. Data were analyzed using qualitative methods of constant comparison and analytic induction to identify common themes that emerged among the interviewed teachers (LeCompte, 2000; LeCompte & Preissle, 1993). A research assistant (trained in coping strategies and child development) and I independently coded and compared teacher transcripts to establish common themes. The development of these themes included the following steps guided by Saldaña (2011): (1) independent identification of key terms found within the transcripts; (2) category creation when similar terms were present; (3) development of coding rules for the set of categories; (4) comparison of the categories by the two coders as a formative check of reliability; (5) adjustments and review for any discrepancies as a

summative check of reliability; and, (6) interpretation of results using quantitative steps of analysis (e.g., frequencies).

Results

Sources of Student Stress at School

What do teachers identify as primary sources of school stress in elementary students from grades 3-5? Teachers highlighted twelve sources. These were further grouped into six domains (see Table 10).

Learning activities. Learning activities represented the most frequently-reported domain of student stress at school. Categorized by group and individual student responsibilities, teachers voiced that classroom activities can create different stressful moments. Individual student responsibilities were frequently cited ($n = 14$), emphasizing particular situations where students might be “singled out,” drawing personal attention from the larger group. According to teachers, public speaking was a relatively common stressor for students in middle childhood. One teacher expressed the interaction between one individual and the collective group can be overwhelming. Further, individual-focused activities in certain school subjects, such as music and physical education, were also identified as stressful. It was noted that demonstrating skill in a particular domain (such as scoring the winning goal during a soccer game) can be rewarding whereas demonstrating lack of skill (such as missing an important basket during a basketball game) can be upsetting.

In contrast to anxiety-inducing social contexts, teachers also reported learning activities that demand complicated steps or other task management skills were stressful for students. For instance, writing activities were identified as a common source of stress.

One teacher explained:

Writing activities, in my experience—especially for kids with learning difficulties or kids with behavior issues—can often be what I could call a trigger for the kids to shut down on me, or not to participate, get annoyed, get very frustrated. They have a difficulty beginning. They have a difficulty getting ideas. They get frustrated because the whole process is long.

When asked whether teachers' evaluation of student writing was a possible source of stress, the teacher asserted:

Actually, I don't think that at all. I think they *want* me to review their work. They want to come straight to me and they don't want to do the self-editing and the peer-editing. They want to circumvent those steps.

Teachers also noted that students less successful in self-managing their time in class activities tend to experience more stress and often exhibit a deer-in-the-headlights look.

One teacher expanded on the stress-related consequences of poor time management:

Whether or not a student works in a timely manner is completely and utterly related to stress because sometimes they don't finish their work because of stress, especially attached to writing. And then falling behind affects social acceptance if they're not finishing because they don't have the time or the interactions they need. So these are all intertwined.

Although only one teacher considered stress as related to problems with tasks that require the use of creativity, it is one worth highlighting in a world of standardized testing in schools.

This teacher was concerned that many students in class exhibit stress when asked to complete a task emphasizing personal expression and deemphasizing conformity.

She explained:

[The] kids get stressed if I don't give them *a lot* of guidance. We'll start a fun project and I'll encourage them to be creative. But they'll ask me, 'What am I supposed to do?' And if one kid does it a certain way, then all the kids do it the same way. I tell the kids, 'Boys and girls, that isn't being original. That's why I give you examples, but it doesn't mean yours has to be exactly like mine. And I want to create independent thinkers, and they should all look different because each of you is unique.' This is very challenging for them. I even give them a menu of options, and they can select from it. You'd hope they could accomplish a few, but that's not happening at all.

Although less frequently cited ($n = 2$), learning activities in small groups were also identified by teachers as a possible source of stress for students. For instance, certain students who are not yet ready to take leadership roles tend to experience elevated stress when they are asked to take class and group responsibilities. Teachers explained working in small groups can be doubly stressful for students, as social conflict and learning distractions arise when others are off-task can produce tension. As one teacher commented, "When they're in small groups, if I'm not monitoring things, things can fall apart."

Peer concerns. Teachers also named peer concerns as a source of stress ($n = 7$), and especially for students in middle childhood. Social interactions in the classroom, in the hallway, at recess, and during lunch are all opportunities in which students can feel included or excluded.

One teacher explained:

I think in third grade, it's become acutely aware of social interactions and what it means to have friends and to not be a part of the group and for things to go wrong.

Especially toward the end of third grade, social interactions become much more important to [students].

Another teacher added gender differences about peer-related stress:

The girls in third grade start getting a bit clique-ish and they tend to enjoy excluding other girls and being included. Meanwhile, the boys are discovering long-term relationships with friends rather than just play at recess.

Teachers addressed non-academic situations; however, the relationship between non-academic problems and academic struggle was also included. In particular, teachers focused on the tendency for students in middle childhood to begin labeling other students based on recognizable qualities, such as the “smart kid” or “troublemaker.”

One teacher observed:

School is all about figuring what group we're in. Who you eat with and which reading group you're in. Who knows how to add and who knows what prime numbers are. Because it's a social setting and they're getting all this information, a part of it is basic understanding but a part of it is coping. That's part of our society and what happens in schools.

Students at this age appear to be highly aware if one child's behavior is not like the rest of the class, especially if it is a continuous or a severe matter. These heuristics are a typical way of classifying others in a highly social environment. Being labeled was a source of stress for many students. This is most likely because being unfavorably compared and categorized can be considered a threat to one's identity and self-esteem (e.g., Tajfel & Turner, 1979).

Performance assessments. It was not surprising teachers cited performance assessments as sources of stress for students ($n = 7$). Teachers expressed that student stress (and adults as well) is a result of constant testing and pressure to perform at or above the state's standards.

One experienced teacher explained:

From my beginning of my teaching until now, I see stress has increased dramatically. It's just test, test, test. And on top of that, schools are being labeled. That's just a snapshot of their day.

Curriculum issues. According to several teachers, student stress due to high-stakes testing was directly related to the curriculum, namely the required pace and workload. This issue was especially emphasized with respect to activities involving mathematics.

One teacher explained:

Everything in school is [to do] well on the test. Not to be a better or stronger mathematical thinker. No. It's review and either get it or not. We have a pace that we have to get to everything.

Learning setbacks. Also related to testing, pace of curriculum, and workload, teachers explained students who encounter learning setbacks (e.g., comprehension difficulty, missing a day of school, falling behind on homework, etc.) tend to exhibit a lot of stress.

A teacher explained a combination of these demands adds to the stress:

We're in that information age where there is a huge push for children to work with a lot of information, process a lot of information, and keep a lot of information. We didn't have the bulk of information that we had to deal with even ten years ago.

Classroom climate. The last domain teachers identified was the classroom climate. There was a focus on adults' academic expectations of students as well as the presence of distractions within the classroom that contribute to student stress. With respect to academic expectations, teachers explained the high expectations of student performance can sometimes increase pressure.

One teacher explained:

This year, we have raised the bar for them where they have to meet an 80% on all class tests. They are not used to it, and they are stressed because we won't accept failure. Now they have to meet those expectations and can no longer be just goals.

Teacher expectations of individual students deserve greater attention with respect to student stress. As evidenced by the teachers in this study, there can sometimes be a delicate line between attainable and unattainable expectations. Over decades, research has shown that teachers who have high expectations of students can produce a self-fulfilling prophecy (Brophy, 1983; Brophy, 1985; Brophy & Good, 1974; Jussim & Harber, 2005). These expectations must be realistic, however. Teachers with an accurate understanding of what students can realistically accomplish challenge students in a way that promotes healthy stress. However, teachers who have "unrealistic optimism" (Weinstein, 1990) characterizing students may have an adverse effect. Unattainable expectations may create an overwhelming amount of stress for students. This process may transform an envisioned challenge into a personal threat, introducing self-doubt and fear of failure in students.

Regarding stress in the physical environment, teachers added that disorder and lack of organization can be major stressors for students.

One teacher observed:

A lot of teachers have kids take their tests up to the desk when they're done. Well, if you're a slower test taker, it's really stressful because everybody's moving. So I'll say, 'When you are done, stay at your desk.' We are always working on making it a very relaxed setting and letting them take their time. That's a big deal.

Teacher Recommendations to Help Students Manage Stress

After identifying common sources of school stress in students, teachers in this study were asked for advice they could offer to a new elementary school teacher about student stress and coping. Specifically, they were asked how a teacher can support children who are experiencing stress as well as what proactive strategies a teacher can implement to help students learn healthy ways to cope with school stress. Recommendations are summarized in Table 11.

1. Establish student-teacher trust.

Teachers frequently emphasized the importance of building trust with each individual student. Here, student-teacher trust was viewed as the foundation for coping development with youngsters. Trust emerged as a preventive structure and active resource for children when they encounter stress at school. Teachers explained before any meaningful learning can occur, honest and reliable communication must be present. This requires a safe environment where each student knows he or she can freely voice any concerns and the teacher will be prepared to respond appropriately to that concern.

One teacher described building student-teacher trust as key for individual contact but also a catalyst for class climate:

The number one way [to help students] is to establish trust with them. I always tell every teacher, 'You don't get respect. You earn respect from the student and it

works both ways.’ And once you establish that trust, you start getting to know [your students] a little bit better and you start building that culture as a class. Then you start picking up on a lot of different things with communication.

How can trust be established so as to guide healthy stress management for children? One teacher emphasized adult modeling and vicarious learning by students. In the classroom, she demonstrates healthy ways to respond to stress because students are sensitive to actions teachers take, especially when the adult is visibly under pressure. The teacher explained, “You really have to model what you want from the children to help them. I focus on modeling appropriate behavior, and especially whenever other teachers are in the classroom.” In this way, student-teacher trust is built through consistency. The teacher must strive to avoid being inconsistent in what he or she says and does.

In addition to modeling, one teacher explained, “[To build trust], I try to be ‘real’ with them. It was something I always appreciated in my past teachers.” Being honest about issues rather than sugarcoating them helps students learn to become more hearty individuals. Others added the importance of presenting oneself as “human” and fallible. This approach guides authentic trust needed for the student and teacher.

One teacher explained:

I tell them that there are days when they are going to shine and days when they’re not going to shine. I certainly use myself as an example. They love that.

Another teacher added:

I tell my kids, ‘We all make mistakes. I don’t pretend that I know everything. But the important thing is that we learn from our mistakes.’ That can help reduce the pressure they may feel.

Students—even at the elementary school level—are already aware of the realities of stress in daily life (Sotardi, study 1 and 2). Student-teacher trust can be built through acknowledgment and reaffirmation that every person experiences stress from time to time but personal challenges can be overcome. In addition, teachers added that trust develops as a result of expectations of the individual student and class as a whole.

As one teacher noted:

[Trust] comes from honesty and manners. That way, students learn to know what you expect of them. They try to meet goals and they see that you care about your job. So they try harder—not to please you—but for themselves.

Even when imposed expectations are hard to reach and stressful for all (such as meeting district and state benchmarks), student-teacher trust can be a source of relief.

One teacher commented:

We do struggle academically, but it seems like with that that there would be more acting out and a frenzy. But it's not. There's a calmness—a trust level that's built between families and students and teachers and leadership.

Positioning oneself as a visible ally for children is a part of building trust. This connection can potentially impact how students come to view the stressful experiences of academic failure over time.

One teacher explained:

Academically, I always tell kids, 'The best thing to do is to try. If you don't, of course you're going to fail. At least if you try, I'm going to get you to place where you're not going to fail. Trust me.'

Importantly, several teachers in this study expressed trust formed between a teacher and individual student may be the only source of trust and adult support the child experiences. This draws special attention to student-teacher trust as foundational to help students acquire strategies to cope with stress in healthy ways, not only for situations at school but outside the classroom as well. If students are not acquiring the skills necessary to be adaptive thinkers when outside of school, then it becomes even more important for educators to model appropriate and healthy behavior.

As explained by one teacher:

Sometimes kids feel that this school is a better environment for them than home. They feel safe and I've had so many kids say that they'd rather stay here than go home or spend vacation with their parents. If you build that trust, you build a community where they are safe. And where they can come to you and then you work with everything else that is asked of you, that you need to teach.

2. Create individual opportunities to listen.

In transition from student-teacher trust, teachers also explained that giving students an opportunity to express concerns without the presence of others is an important way to help them release tension through communication.

One teacher explained:

If you sit down with a child and you talk to them and you have that connection already established with the student, they'll open up and tell you what's going on.

Opportunities to talk freely were seen as critical to supporting stress management, especially as children in middle childhood tend to shift from behavioral responses to stress to more cognitive ones (see Zimmer-Gembeck & Skinner, 2011). Teachers emphasized individual

attention as an important way to learn about the student experience by getting “inside their head” and providing a safe place for the individual student to share.

One teacher reasoned:

I pull them out and say, ‘Are you okay? Is something bothering you?’ And that’s when either they tell me or they break down. I think something like this—just talking and venting—the kids just need to talk, talk, talk. Find out what’s really bothering them and get the support they need after that.

This does not need to involve a lengthy discussion, formal meeting, or prescribed solutions for action (or inaction). The purpose of individual opportunities is to engage students in a way of coping through emotional expression using their own words with an adult who will pay attention and respond through caring support. This catharsis is a release that everyone needs from time to time.

3. *Create group transparency.*

One theme among teachers in this study was the importance of creating a classroom environment where students felt the space was “theirs” and had a shared sense of control. To achieve this, several teachers emphasized group transparency. This transparency provides a routine opportunity for open, whole-class discussion about student problems.

One teacher offered a strategy for the classroom:

Most mornings, we’ll do a ‘class circle.’ We give everyone an opportunity to check in and see how they’re doing. Sometimes they don’t want to share, or they say they aren’t having a good day. But I’ll be aware of it so maybe I won’t call on him that day or give him a break if he doesn’t have his work for the day. [...]

One time, we had a student who just blew up and was like, ‘You don’t know what

my life is like! You don't know what it's like at home! I have to take care of my nana and I have to walk the dog [...], and none of you understand!' But we worked together as a class and tried to show mutual understanding. I said something like, 'Yes, sometimes we all get that way. And others can understand—who else has chores to do that adds stress?' At least he got to give himself a voice and get some control. And opening that empathy created an important outlet for this child.

Another teacher included a similar strategy:

Usually on Mondays—because the weekend is rough for some of [the students]—we give them a chance to share how they are doing by raising a certain amount of fingers from zero to ten, ten being great. Sometimes the ones that give a one or zero or even a five, I tell them, 'You don't have to share, but if you want to please feel free.' [If the child says no,] later I'll say privately, 'I noticed that you gave yourself a one. Are you okay? Is there a problem is there anything I can help you with?' And so that's when they say what happened and you try to support them. [...]. I've done it for years and it helps me as a teacher to be more considerate to kids. And they know that I really care about them. They know that I am understanding. If something happened at home and they didn't turn in their homework, I understand. We all go through different things.

In addition to giving students an opportunity to discuss problems at the whole class level, one teacher created a technique intended to reinforce positive coping strategies used by students.

She explained:

We have two metal buckets. One is the 'inbox' and the other is the 'training' box. In the inbox, they get to write letters to each other or acknowledge friends for helping or specific things that they're doing for each other. They are not anonymous. They write their name on it and give it to each other. Then we have the other bucket and they explain how they tried to solve such-and-such problem with someone. I always tell them, 'Before you put a message in that particular box, make sure that you make sure you gave that person some time to cool down. Maybe they weren't ready to talk about it at the moment. Maybe they asked what the other person has to say. It's important to communicate with each other but if that person refuses to completely talk about it or resolve the problem, that's where you can put the message in there and address it to so-and-so.' Then we try and have a class meeting I give the message to the appropriate child and in front of the class they talk to each other. We don't get involved because we were not part of the problem, but we are just listeners here to see how they are going to resolve their problems.

Although the concept of having classroom meetings is not new to educational research (e.g., Glasser, 1969; Kelly, 1974), such group discussions appear important to school stress and coping development. Different strategies to help students manage stress in a transparent and guided approach create an important community of mutual trust, empathy, and support among young individuals. At the same time, giving students an opportunity to share their problems with others and listen to one another is indispensable for teachers. Teachers can be more in tune with student issues that occur "behind the scenes" so that problems can be addressed efficiently while maximizing learning and classroom management.

4. *Pay attention to behavior change.*

Teachers frequently explained adults must be able to accurately evaluate warning signals in children. This relies on detecting obvious and subtle cues from students. “You need to look for changes in their daily behavior,” one teacher commented. The cues most teachers in this study pay attention to include: the student’s body language and facial expression, general attitude, focus and memory, willingness to work with others, repeated requests to visit the nurse’s office, and participation in class activities. Looking for behavior changes requires the teacher know the student and get to know limits in what he or she can handle. One teacher explained, “They don’t really have to say it. Just the way they come in, I know there’s something wrong.” Lastly, if a teacher fails to raise awareness of student behavior, it can have a ripple effect throughout the classroom.

One teacher explained:

Sometimes I have to watch for certain kids. Like, there’s a boy in my class. I have to keep track of him because if he’s having a bad day, it can escalate and make things worse for him, and for me, and for the class.

It is certainly difficult for a teacher to identify stressors for students at the beginning of a school year; however, common signals can be helpful for teachers.

One teacher described different ways students in third grade exhibit social stress:

Stress from social problems is pretty obvious almost within the first two weeks of school. From the kid who wanders by himself on the playground every day to the kid who tries really hard to be a part of the group but he isn’t really a part of the group—but these kids are always nice and you try to include that child. To the child who when he does interact he gets angry when things don’t go his way, he

gets impulsive... I'm mean this really stands out almost immediately within the first two or three weeks of school, to the child who will come up to you and say to you—and I've even had kids come up to me to be honest, 'Miss, I don't have any friends. No one will play with me.'

For teachers, signals for student stress may be especially visible outside of the classroom. Monitoring how children interact with others during recess or at lunchtime may offer insight into how a student is feeling and responding to potential stress. Sotardi (study 1) identified that a source of relief for young students is unstructured time. Ginsburg (2007) added that children need unscheduled, independent time to reflect and decompress. Thus, comparing students in a classroom versus play setting may help adults to identify possible stress and coping.

5. Refer to stress as a challenge for personal growth.

To help students manage stress at school, a different perspective on the meaning of stress may be advantageous. Teachers in this study referred to stress both in negative and positive terms; however, young students are less likely to view stress in such a constructive way (Sotardi, study 1). As such, helping students to better understand that some stress is a normal part of individual learning and growth may guide them to view stress more as challenges than as threats.

One teacher described:

If there was no stress, there might not be any gains, or any desire to put forth effort. Kids are going to be bored and that can't be good because that can lead to other issues. Figuring out that for each child is a part of the dance—it's the ongoing process of asking: How much is too much and how much is too little?

Another teacher explained:

I think healthy stress helps them to perform better, academically and elsewhere. I think [...] if you're a little bit nervous, you're going to be on your toes more. So it's that optimum stress where you're not so laid back that you don't put forth effort. Healthy stress is a little bit but it's not debilitating. It's the kind of stress that disappears once you start what you're doing.

When a student or students view stress as a challenge, it suddenly becomes a problem that can be more easily managed. Two teachers stated describing student performance as a challenge can be particularly constructive. One teacher explained, "I try to get students to see the test as an opponent. We are going to challenge each other, and we're going to be the winners." The anticipated stress of a test is therefore buffered by encouragement and healthy competition.

Another teacher explained that testing-related challenges can be viewed as a low-stakes celebration of knowledge and hard work:

I will tell you that I don't make a huge emphasis on tests and quizzes. We do them because I have to. I tell the kids, 'Show that you're learning.' And when we actually take the [state standardized test], I tell them, 'This is the week we have a buffet every day. We're going to eat. We're going to dance. You're going to eat chocolate. And you're going to have gum. And *if* we have time, we'll fit in the test.'

6. Help children evaluate their behavior and consequences.

Several teachers commented a need to guide students how to evaluate causes and effects of behavior when encountering conflict. Teachers have a shared responsibility to help students identify whether actions were related to an outcome. Additionally, students may need help

realizing when and how they might change their behavior to reduce stress in the future. In doing this, teachers can help students evaluate the reality of a situation.

Teachers explained stressful events at school depend on students' perspective of the problem. The teacher can be a part of helping students to gain a more realistic understanding of events. One teacher added this evaluative process of judgment and attribution is to get students to organize their thoughts and emotions and—especially during social conflict—take the perspective of the other individual or individuals involved. This also involves a focus on next-steps that can be taken in the future, especially since common stressors such as peer conflict are things students will continue to encounter throughout their lives.

She explained:

I try to get students to be clear about how they feel [because] sometimes it does and sometimes it doesn't really bother them. They might just be doing something that upsets another person, or maybe it's the same person and it really does bother them. Sometimes there's an issue that's deeper and other things are happening too. Hopefully it's letting it go and not holding a grudge, but sometimes it's not always that way.

7. Encourage students to compartmentalize stress.

Teachers recognized the importance of helping students manage stress by containing it within its domain, whether academic or social. As discussed, people—children and adults—have a tendency to amplify stress by making sweeping generalizations about the problem. It can be a slippery slope before catastrophizing ensues. Helping students to think about stress as context-specific may be beneficial in this regard. For example, one teacher explained the

importance of re-focusing on academics even during a day that involved a conflict situation with other peers.

The teacher described:

Last week, a kid got in trouble with the assistant principal and when he came back in math class he was just shut down. He's one of my top math students, so when I saw that, I went over to him and privately said, 'You know, what happened is out there. Now we're in math. I need you to be 100 percent.'

This kind of action is intended to promote coping that takes the heat off the emotional event, promotes distraction techniques that re-orient students as a way to manage the immediacy of the stress and persevere.

One teacher explained:

I had a child who he was supposed to be taking the [state standardized test], but he was really struggling at the moment. I pulled him outside and asked what was wrong. And he said, 'I know I'm supposed to be doing my best, but...' He explained to me there were problems at home, and I had no idea. I asked how I could help him, and I told him, 'I know it's hard. And if I were you, I'd be just like you.' I then encouraged him to drink some water, take a break, and reorganize his mind so he could try to do his best. I told him I would do whatever I could to help with the situation at home and it really helped him change gears.

These examples represent a way of thinking that problems do not have to become a game of emotional dominoes.

8. *Monitor student behavior when in pairs and small groups.*

Elementary school students often experience more opportunities for stress during settings where the teacher is not present (Sotardi, studies 1 and 2). Since a teacher cannot always be present to monitor every peer interaction (especially on the playground), teachers in this study identified pairs or small groups as possible moments for student stress. Helping students to manage stress comes from listening closely to how students interact in groups. The relations among stress and communication while being asked to achieve a task may create additional problems for individuals and groups. One teacher provided an example in which a student was being asked about why she was upset and how monitoring the situation was critical to limiting further stress.

She described:

A student of mine had a death in the family and she was visibly upset. And when the kids were doing their paired work, I noticed her partner was asking a lot of questions. I said to her partner, ‘She’s having a rough time so let’s give her some space. You know, you don’t need to keep asking her what’s wrong.’

Under such circumstances, monitoring student interactions during paired work and small groups positions the teacher as an advocate for all students. One teacher explained that in small group settings, “students that are stressed out can affect others because they’re acting up or doing something else.” As a result, being especially mindful of students who exhibit off-task behavior is important not only for learning implications but also because being off-task can be a cause and effect of stress for students.

9. Give students an opportunity to call for backup.

Teachers explained young students often experience stress when they are fearful of being “singled out.” To help cope with this stress, teachers recommended students be given an

opportunity to invite a friend to complete an activity such as speaking in front of the class. That way, students are able to have greater control over the stressor without escaping it altogether.

According to one teacher:

Speaking in front of the class—for some—right now, it's not a hundred percent there yet. So you want them to speak, you want them to talk to each other. This is the way that I like them to discuss issues within the groups or out loud in front of the class, but some are not, which is fine. So what we do is we partner them or we say a group of people, 'Three of you guys go up there and explain.' We don't put that child on the spot.

10. Know when you (the teacher) need to call for backup.

Several teachers addressed the importance of helping students manage school stress through taking the appropriate procedures when a student needs to be referred to a counselor or school psychologist. For some circumstances, a teacher needs to rely on other team members at the school to support the individual child so other students do not lose learning opportunities. A teacher provided an example in which a serious peer conflict situation was managed through the added support of the school counselor.

She described:

Here's the problem. I can't be here resolving [the situation] because I have to be somewhere else. So I called the part-time counselor and said, 'I really need your help right now.' We only have an hour in the science lab and it's my time and I have to take it because I have 19 other children who have time to be in the lab. So while the counselor had spoken to the child, I was teaching science. [...]. If the counselor had not been there, I don't know how successful the science lesson

would have been, because she removed the child from my class for about fifteen minutes.

Another added that teacher success in supporting students through stress is affected by the magnitude of the problem at-hand.

She explained:

I think how to help students deal with stress depends on the situation. Many times I think they're able to cope with it. But for example, I have a kid who is mostly focused and then toward the end of the year she was just sitting there doing nothing. I got others busy and working independently. I sat with her and it turns out a family member had shot himself. And I told her to go drink some water and try to do what you can. And I sought the principal for a counselor to work with her.

Similarly, teachers also discussed the value of taking time to reflect on how to support students in the most effective way. Helping children manage school stress depends on adults who respond to student problems with the appropriate caution and deeper consideration of the individual's concerns. Sometimes a teacher can assist the student without seeking out outside resources; however, it was emphasized by individuals in this study that a teacher can and should use outside resources for the better good of the student as well as other children in the class.

One teacher explained:

That's part of the whole as a teacher—taking the time to reflect and think through things. Maybe not your whole day, but part of it is crazy [...]. Try not to react quickly but to give it some time to think about how to proceed.

11. Acknowledge learning can sometimes be secondary.

Although it was not a specific question in the interviews, several teachers commented on the link between students' home life and school stress. They recognized that even though learning is the primary objective in schools, being able to achieve that objective depends on resolving moments of tension that students encounter along the way.

As one teacher reasoned:

That's one thing that teachers need to consider. They think, 'Okay, I'm here to teach and force the kid to learn.' *No way!* They're carrying tons of things with them and we're lucky that they're actually picking up a lot of the stuff that we're teaching them with the environment that they're coming from. And all the baggage that they're carrying [...], you try to have them engaged at all times in class so that whatever it is that's bothering them is sort of blocked to a degree and they can start picking up.

One teacher expressed home stress was the greater source of stress for young children and educators have no control over those outside factors. Certainly teachers have very limited control over the kinds of stress a child experiences at home. However, it is necessary that teachers remember the huge influence they have on young students. Teachers help students to learn healthy ways to cope with problems at school. This is an esteemed responsibility as students can apply and transfer these skills elsewhere in life.

One teacher reasoned:

[Teachers have] a certain amount of control over student stress. Let's put it this way, we employ strategies to diminish that stress as much as possible. So from that standpoint, that's the control we have. We can't do it all. We can't help them when they go home. So we love them the best we can when they're here. We do

for them the very best that we can and I've never been in a place where people do more to help kids. And hopefully that helps them even to cope at home.

Discussion

Without a doubt, elementary school teachers impact stress and coping of young learners. What they do (and not do) is critical for the wellbeing of students, not only for academic success but developmental success as well. As demonstrated by teacher examples in this study, learning activities were identified as the most frequent sources of stress at school. At this age, students are learning more about themselves as individuals and how their actions are viewed by others. As such, opportunities in class that leave children "exposed" introduce stress due to fears of being singled out and showing incompetence in front of others. In addition, pair and small-group activities can be stressful because they involve learning objectives without direct supervision of the adult in addition to social pressures of working with peers with whom they may or may not get along.

Other sources of school stress offer a richer understanding of what an elementary school classroom looks like today. From the perspective of teachers, the curriculum itself seems to be the most impactful stressor on students. The pace of the curriculum—shaped by learning objectives required for state testing—determines how students function and cope successfully with learning setbacks. Similarly, students who fall behind on schoolwork often experience prolonged tension that they can never reach the finish line. The ever-present of testing in elementary schools is an increasingly demanding factor in students' lives. As discussed, today the possible effects of an education that is tailored to testing appears to surface. For instance, youngsters may be fearful of being creative and independent ideas—two factors which are important for adaptive thinkers. It is important to re-emphasize that stress is not inherently bad.

A life that is sugarcoated by adults is one that prevents students from seeing what the real world looks like. This limits the development of flexible coping strategies that are necessary for a hearty and adaptive individual.

Elementary school teachers can provide a myriad of examples to demonstrate stress is a daily reality for students in the middle grades. How teachers respond to student stress has direct implications for coping development in middle childhood. As discussed, how teachers structure the classroom environment to monitor stressful events and create a setting where students can feel safe when they make mistakes is a critical step. How teachers view the effectiveness of certain coping methods and whether they pay attention to short- and long-term resolution are of importance. For situations involving peer conflict, teachers can help students realize that aggression is a short-term way of managing stress, but there are alternative coping strategies that follow school rules and may be more effective in the long term (see Sotardi, study 2). This process affects the students involved as well as bystanders to acquire a larger toolbox of adaptive coping skills.

Adaptive students manage stressful situations in a way that reduces the impact of the stressor and minimizes negative effects of the stressor on other areas of student life (e.g., peer interaction and academic performance; Sotardi, study 1). A class that promotes adaptive coping is built around student-teacher trust. Through honesty, respect, and clear expectations, teachers can produce a learning environment with cohesion and transparency. Young students who view mistakes as a valued part of learning (rather than fear the negative consequences) may be more likely to open to trust and communication. Importantly, modeling healthy ways of coping is particularly important because students are sensitive to what a teacher does and does not do. Teachers should provide private and public opportunities to address student concerns. Here,

teachers can promote coping skills focused on thinking, talking, and listening. Helping students to recognize they can break apart concurrent stressors into smaller segments may give them a better focus on what actions they can and cannot take to improve the situation (see also Sotardi, study 1).

As teachers, it is important to remember that students in elementary school are at the beginning of a lifelong process of learning to respond to challenges, difficulties, and threats inside and outside of the classroom. Trial-and-error with different coping strategies sometimes turns out to be effective or ineffective depending on the situation and individual. Elementary school teachers should take time to thoroughly assess why a student is reacting in a certain way. Some coping strategies, such as showing aggression to stop malicious teasing, may be viewed as maladaptive from the adult's perspective (considered to be inappropriate conduct) but adaptive from the student's perspective (appears to stop the teasing in the moment of tension). Simple strategies teachers can implement with students—listen, support, and assist when needed—can foster an education that reaches far beyond the classroom.

CHAPTER 5: CONCLUDING THOUGHTS

Based on the research conducted, it comes down to the nitty-gritty: Being an elementary school student today is a colorful but challenging time. As they grow, children rely on others (e.g., peers, teachers, and family) to help celebrate successes and also learn from failures. Being able to cope with everyday problems at school in healthy ways can offer students an education that reaches far beyond the classroom.

Findings from research in this dissertation have helped me to better understand the nature of daily stress and coping in elementary school populations. Study 1 helped me to understand how students think about stress, the problems students face at school, and effective and ineffective ways students try to reduce those moments of tension. Study 2 opened a window of insight regarding the daily life of elementary school students attending an excellent school that serves a low-income community. This helped me to understand the day-to-day trends as well as how students attempt to cope with these everyday issues. Study 3 helped me to identify some of the student problems that teachers see. It also provided me with important ways for teachers, parents, and other adults to help students cope with stress. Although this has answered some core questions, it has also prompted me to think about future steps.

My current thinking about educational research with stress and coping is mapped in Figure 4. Four fundamental questions exist: (1) What is student stress? (2) What are key predictors of student stress? (3) How do students develop coping strategies?, and (4) What is the impact of coping? The research for this dissertation taps into issues related to the first two questions. Across these studies, I considered the impact of school environment on student stress by identifying contexts that create problems for students within schools that are high-achieving settings. Additionally, I focus on the question regarding the experience of stress at school. In

this research, I sought to examine the meaning of stress according to students, what their perceptions of stress include, and attempted to measure daily stress using the development of an instrument. Topics I find necessary to examine in the future are shown in Figure 4.

As can be seen, more work examining predictors of student stress are necessary. These include macro-effects, such as community differences (e.g., state-allocated funding for education), language diversity, and cross-cultural differences in the interpretation and expression of stress. Certainly research on the home environment and its impact on student stress are critical, as being able to understand what happens at home can provide richer understanding of what students are facing elsewhere in their lives. Other factors within the school environment should be evaluated, such as inclusion in the classroom as well as a variety of teacher and peer dynamics (expectations, instructional methods, amount of free time available). These factors must all be examined within a specified age population in mind. An important focus is the link between predictors of stress and the experience of student stress. Having a basic understanding of what elicits stress for children can ultimately attenuate those concerns in a proactive way. Preventive efforts to limit the burden of stress on students can be valuable intervention opportunities.

The impact of school stress on coping is at the core of the research agenda. To be maximally effective, I believe that taking specific stressors (e.g., peer conflict when in small groups) and identifying effective and ineffective ways to cope for the short- and long-term. Interventions that focus on responsive coping under stress (i.e., what to do next?) may be beneficial for schools and communities. Work that considers attribution training with children may be especially helpful, as guiding students how to analyze a stressful situation can have major effects on coping in a healthy way. Lastly, it is important to analyze the impact of coping

strategies on student outcomes. These outcomes include academic success (achievement, motivation to learn), social development (interactions with peers and adults), and physical/psychological wellbeing (health, emotional regulation, and resilience). There is a wide range of ideas to consider, and I look forward to unpacking them over my career.

APPENDIX A: HUMAN SUBJECTS APPROVAL



Human Subjects
Protection Program

1618 E. Helen St.
P.O. Box 245137
Tucson, AZ 85724-5137
Tel: (520) 626-6721
<http://orcr.vpr.arizona.edu/irb>

HSPP Correspondence Form

Date: 04/04/12

Investigator: Valerie Sotardi, Doctoral Candidate

Department: Educational Psychology

Advisor: Mary McCaslin, PhD

Project No./Title: 12-0095-02 Understanding Everyday Stress and Coping in School

Current Period of Approval: 04/04/12 - 04/03/13

Submit the "FORM: Continuing Review Progress Report" no later than 45 days prior to the end of the approval period listed above.

IRB Committee Information

IRB2 – IRB00001751

Expedited Review – New Project

FWA Number: FWA00004218

Documents Reviewed Concurrently

F200: Application for Human Research (signed 01/30/12; revised 03/04/12)

Consenting Instruments:

Parent Permission (version 03/04/12)

Child Assent (version 03/04/12)

F107: VOTF (received 02/07/12)

Site Authorizations: Tanque Verde Elementary School

Recruitment Materials: Letter to Teachers

Data Collection Instruments: Semi-structure Interview

Other (define): CV Sotardi

Determination

Approved as submitted effective 04/04/12

Regulatory Determination(s)

- Criteria for Approval has been met (45 CFR 46.111): The criteria for approval listed in 45 CFR §46.111 have been met (or if previously met, have not changed)
- Expedite Approval (45 CFR 46.110 Category 6): Collection of data from voice, video, digital, or image recordings made for research purposes.
- Expedite Approval (45 CFR 46.110 Category 7): Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.
- Vulnerable Population – Children (45 CFR 46.404): Research involving not greater than minimal risk (Single interview regarding stresses encountered by children in the school setting) and adequate provisions are made for soliciting the assent of the children and permission of their parents or guardians, as set forth in 45 CFR 46.408 (Parental Permission and child assent will be obtained for all participants).
- Waiver of One Parental Signature (45 CFR 46.408(b)): permission of one parent is sufficient as it is research involving not greater than minimal risk as defined in 45 CFR 46.404.

04/04/12

Elaine G. Jones, PhD, RN
Chair, IRB 2 Committee
UA Institutional Review Board

Date

EGJ:les
cc: dlevine@email.arizona.edu

Reminders: No changes to a project may be made prior to IRB approval except to eliminate apparent immediate hazard to subjects.

Arizona's First University – Since 1885

Title: HSPP Correspondence Form
Form version: 01/19/2012





Human Subjects
Protection Program

1618 E. Helen St.
P.O. Box 245137
Tucson, AZ 85724-5137
Tel: (520) 626-6721
<http://orc.vpr.arizona.edu/irb>

HSPP Correspondence Form

Date: 04/04/12

Investigator: Valerie Sotardi, Doctoral Candidate

Department: Educational Psychology

Advisor: Mary McCaslin, PhD

Project No./Title: 12-0094-02 Children's Everyday Stress and Coping: Teacher Perspectives

Current Period of Approval: 04/04/12 - 04/03/13

Submit the "FORM: Continuing Review Progress Report" no later than 45 days prior to the end of the approval period listed above.

IRB Committee Information

IRB2 – IRB00001751

Expedited Review – New Project

FWA Number: FWA00004218

Documents Reviewed Concurrently

F200: Application for Human Research (signed 01/30/12; revised 04/02/12)

Consenting Instruments:

Informed Consent Teacher (04/02/12)

F107: VOTF (received 02/07/12)

Site Authorizations: Tanque Verde Elementary School

Recruitment Materials: Letter to Parents

Data Collection Instruments: Child Semi-structure Interview

Other (define): CV Sotardi

Determination

Approved as submitted effective 04/04/12

Requirements

- **Research Site Authorization Requirement: Tanque Verded School District** Clearance from official authorities for sites where research is to be conducted must be obtained prior to performance of this study at those sites. Evidence of this must be submitted to the HSPP office.

Regulatory Determination(s)

- Criteria for Approval has been met (45 CFR 46.111): The criteria for approval listed in 45 CFR §46.111 have been met (or if previously met, have not changed)
- Expedite Approval (45 CFR 46.110 Category 6): Collection of data from voice, video, digital, or image recordings made for research purposes.
- Expedite Approval (45 CFR 46.110 Category 7): Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

04/04/12

Elaine G. Jones, PhD, RN

Date

Chair, IRB 2 Committee

UA Institutional Review Board

EGJ:les

cc: Deborah Levine-Donnerstein, dlevine@email.arizona.edu

Reminders: No changes to a project may be made prior to IRB approval except to eliminate apparent immediate hazard to subjects.

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T106: HSPP Correspondence Form
Form version: 01/19/2012





Department Of Accountability and Research
442 E. 7th St. Tucson AZ 85705
(520) 225-5418 FAX (520) 225-5226
<http://tusdstats.tusd.k12.az.us>

August 23, 2012

Valerie Sotardi
1931 North Camino Serna Unit A
Tucson, AZ 85715

Project Title: Understanding Everyday Stress and Coping in School

Dear Ms. Sotardi,

On behalf of the Tucson Unified School District, I am pleased to inform you that your request to conduct research has been approved for the **2012- 2013** school year. We are committed to collaborating with you on your study "*Understanding Everyday Stress and Coping in School*". In support of your research, we agree to provide you with the opportunity to recruit students in grades 3-5 from ten schools in our district. Once you begin your study, we require that interviews be conducted before or after school and that the student stress scale be sent home with the students.

As a provision of approval we require that you 1) Provide the principals with an overview of the study and ask them to sign a copy of the attached consent form. Signed Principal approval forms need to be in your file so please mail the forms to me. 2) Obtain signed parental/guardian consent for each student and then forward the consent forms (originals or a copy) to the Principal **before** you begin your study. 3) Provide a report to district administration upon the completion of your study. We look forward to working with you to facilitate this study. Please call me if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Dynah Oviedo". The signature is written in black ink and is positioned above the typed name.

Dynah Oviedo, M.A.
Research Project Manager



Human Subjects
Protection Program

1618 E. Helen St.
P.O. Box 245137
Tucson, AZ 85724-5137
Tel: (520) 626-6721
<http://ocr.vpr.arizona.edu/irb>

HSPP Correspondence Form

Investigator: Valerie Sotardi, PhD Candidate

Department: Educational Psychology

Advisor: Mary McCaslin, PhD

Project No./Title: 12-0095-02 Understanding Everyday Stress and Coping at School

Expiration Date: April 3, 2013

Submit the "FORM: Continuing Review Progress Report" no later than 45 days prior to the expiration date.

IRB Committee Information

IRB2 – IRB00001751

FWA Number: FWA00004218

Expedited Review – Modification

Documents Reviewed Concurrently

F213 (signed 2012-06-25; revised 2012-09-28)

Consenting Instruments:

Parent Full Project Permission Form (English & Spanish) (version 2012-08-28)

Teacher Informed Consent Form (version 2012-08-28)

Child Assent Form (Written) (version 2012-08-28)

Site Authorizations:

TUSD

Recruitment Materials:

Principal Email Script

Teacher Email Script

Parent Letter (to accompany consent form)

Principal Letter

Data Collection Instruments:

Child Recruitment Script & Interview

Child Follow Up Interview

Teacher's Stress Log

Teacher Interview

Description of Changes

- **Protocol change:** The enrollment number has changed from 60 children to 1440 children and 72 teachers.
- **Revised Subject's Consent/Parental Permission/Minor's Assent forms:** The Parent Permission form in English and the Teacher Informed Consent form have changes which reflect the new data collection timeframe. The Child Assent (verbal) has been re-worded for clarity and a new written assent form has been introduced. A Spanish version of the Parent Consent Form has been introduced.
- **Additional research sites:** TUSD
- **Added/Revised study documents:** Child Semi-Structured Interviews have been modified to include more structured items. The Child Daily Stress & Behavior Scale includes the creation of a "booklet format" with random Teacher ID included at the bottom of each page. The Teacher Semi-Structured Interview includes a new

Reminders: No changes to a project may be made prior to IRB approval except to eliminate apparent immediate hazard to subjects.

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T106: HSPP Correspondence Form
Form version: 09/14/2012

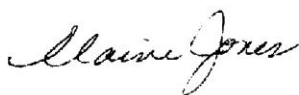
instruction protocol for the Child Daily Stress & Behavior Scale. The Email Texts to Principals and Teachers reflect changes to the data collection timeframe and instruments. A new Letter to Parents has been introduced to accompany the parent permission form.

Determination

Approved as submitted effective as of the signature date below

Regulatory Determination(s)

- **Criteria for Approval has been met (45 CFR 46.111):** The criteria for approval listed in 45 CFR §46.111 have been met (or if previously met, have not changed)
- **Modification Eligible for Expedite Review (45 CFR 46.110):** The modification(s) do not affect the design of the research AND the modification(s) add no more than minimal risk to subjects.



2012-10-04

Elaine G. Jones, PhD, RN
Chair, University of Arizona IRB

Date

EGJ:cb

-
- No changes to a project may be made prior to IRB approval except to eliminate apparent immediate hazard to subjects.

APPENDIX B: INTERVIEW PROTOCOL FOR STUDY 1

Child Information

Let's chat a little bit about you.

- How old are you?
- How many brothers or sisters do you have? Older? Younger?
- What are some of your favorite foods?
- What kinds of movies or books do you like?

About School

- Thanks for sharing! These next questions are about school.
- What kinds of things do you like about school? What do you like about them?
 - What stuff do you like to do in your class?
 - What stuff do you like to do at recess or at lunch?
- What kinds of things do you maybe not like so much about school?
 - What stuff do you not like so much in your class?
 - What stuff do you not like so much about recess or lunch?
- What's the hardest thing about being a ___ grader?
- What's the best thing about being a ___ grader?
- If you could use one word to describe to an adult what it's like to be a __ grader, what word would you use? Why did you pick that word?

Stressful Events

- Even when things are going well for kids, almost everyone still has tough times. People sometimes use the word "stress."
- Have you ever heard the word "stress" before?
 - What do you think the word "stress" means?
 - So, to make sure I understand, you said: _____
- I'd like you to think about a tough time you've had at school. What first comes to mind?
 - What happened?
 - Does this happen a lot to you?
 - Who else was there?
 - Where did this happen?
 - When you had this tough time, how did you feel?
 - How'd it turn out?
 - How do you feel about it now?
 - Would you have done things differently?
 - Thanks. That does sound like a tough time. Is there another tough time that also comes to mind?

Good-Not Good Day Barometer

- Everyone has days at school that are good and some that are not-so-good days. I'd like you to tell me a story that describes what a really good day at school. I'll start, and you can over. OK?
 - Imagine it's the time before school starts. What kinds of things would happen to make it a really good day?
 - OK, the bell rings. You are in your classroom and you sit in your seat. What would happen next to make it a really good day for you?
 - Anything else?
 - [If child has run out of ideas...]
 - On a really good day, what happens when you have new stuff to learn?
 - On a really good day, what happens when you have a test or something?
 - On a really good day, what happens when you are with other kids in your class?
 - On a really good day, what happens between you and your teacher?
 - Imagine it's lunch time. What would happen next to make it a really good day for you?
 - To finish our story, how often do you have really good days? Most days, Some days, Not too many days?
 - If you have a really good day at school, what will the next day be like? Just as good? Better? Worse?
 - OK, that was great!

- Now, I'd like you to tell me a story that describes a day at school that is full of tough times.
 - Imagine it's the time before school starts. What kinds of tough times might you have?
 - OK, the bell rings. You are in your classroom and you sit in your seat. What tough times might you have?
 - Anything else?
 - [If the child has run out of ideas...]
 - On days that are not at all good, what happens when you have new stuff to learn?
 - On days that are not at all good, what happens when you have a test or something?
 - On days that are not at all good, what happens when you are with other kids in your class?
 - On days that are not at all good, what happens between you and your teacher?
 - Imagine it's lunch time. What tough times might you have?
 - To finish our story, how often do you have days that are not at all good? Most days, Some days, Not too many days?
 - If you have a tough time at school, are there things you can do to help you feel better? If YES, what?
 - If you have a tough time at school, do you have someone you can talk to about it to make you feel better?

- If you have a tough time at school, what will the next day be like? Just as tough? Better? Worse?
- Thanks, you did a very nice job!

- OK. Here are some fun questions and then we'll be done!
If you could be any animal, what would you be and why?
What do you want to be when you grow up?

- I really enjoyed our time today. Do you have any questions?

APPENDIX C: FIGURES AND TABLES

FIGURE 1. STRESS-O-METER

Directions: Circle the face that describes how you were yesterday and today.

1. **YESTERDAY** my day was _____.



Very
Good



Pretty
Good



OK



Not So
Good



Not Good
At All

2. **TODAY** I had a _____ day learning new things.



Very
Good



Pretty
Good



OK



Not So
Good



Not Good
At All

3. **TODAY** I had a _____ day with other kids in my class.



Very
Good



Pretty
Good



OK



Not So
Good



Not Good
At All

4. **TODAY** I had a _____ day with other kids at recess and lunch.



Very
Good



Pretty
Good



OK



Not So
Good



Not Good
At All

5. **TODAY** my teacher and I had a _____ day.



Very
Good



Pretty
Good



OK



Not So
Good



Not Good
At All

FIGURE 2. AVERAGE SCORES OF PERCEIVED SCHOOL STRESS OVER TIME BY STUDENTS IN GRADES 3-5

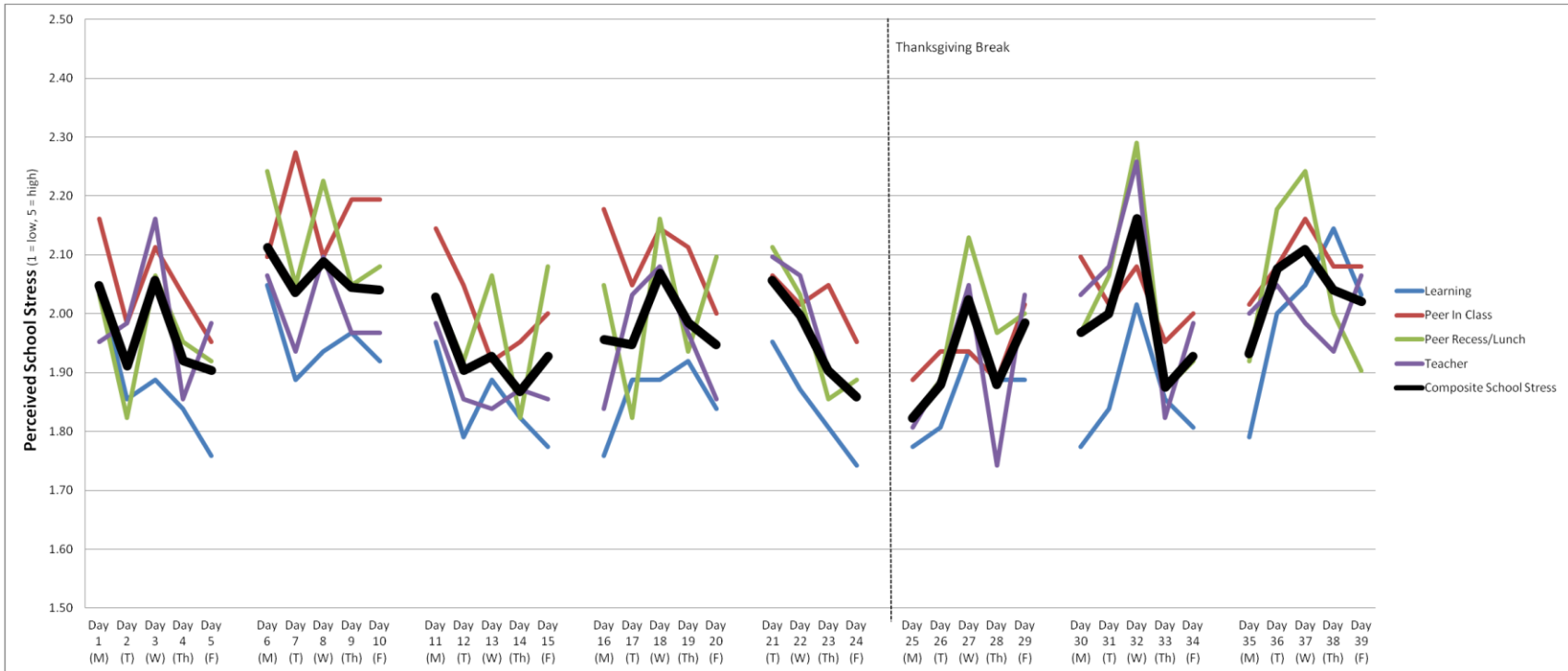
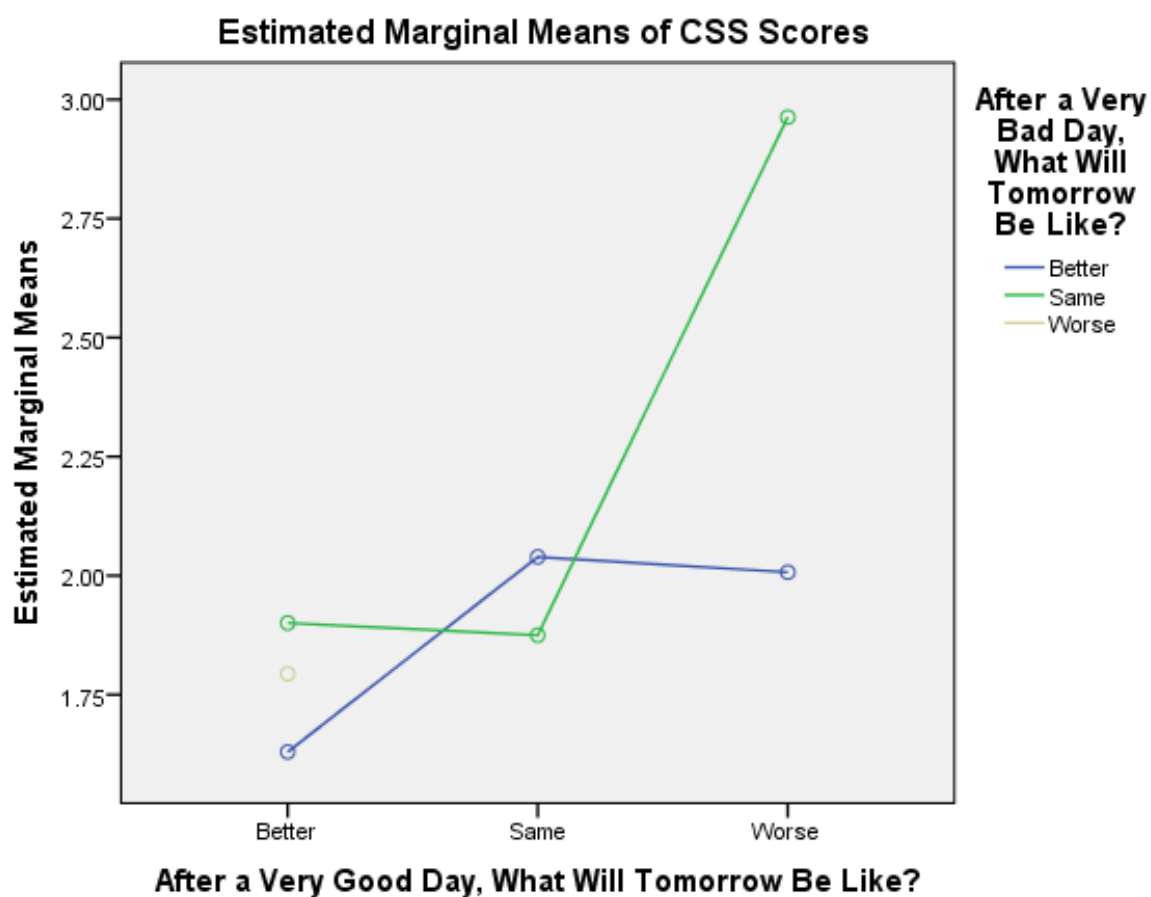


FIGURE 3. INTERACTION EFFECT FOR 3 X 3 FACTORIAL ANCOVA INVOLVING EMOTIONAL FORECASTING AND CSS SCORES



Covariates appearing in the model are evaluated at the following values: Grade = 4.21
Non-estimable means are not plotted

FIGURE 4. A RESEARCH AGENDA FOR STRESS AND COPING IN SCHOOLS



TABLE 1. REFERENCE CODING GUIDE FOR COPING STRATEGIES WITH CHILDREN

Family of Coping (based on Skinner et al., 2003)	Examples from previous child/adolescent research
Problem-solving Strategizing Instrumental action Planning	Did something to make things better (Ayers et al., 1996) Did something to solve the problem (Ayers et al., 1996) Think of different ways to change the problem or find the solution. (Conner-Smith et al., 2000) Ask other people for help about how to make the problem better. (Conner-Smith et al., 2000) Try to do something about it. (Walker et al., 1997) Try to do something to make it go away. (Walker et al., 1997) Try to figure out what to do about it. (Walker et al., 1997) Think hard about what to do. (Walker et al., 1997)
Information-seeking Reading Observation Asking others	Try to find out exactly what I did wrong. (Tolor & Fehon, 1987) Try to see what I could learn from the situation. (Lepore & Kliever, 1989 in Kliever, 1991) Ask others why [they were fighting]. (O'Brien, Margolin, & John, 1995)
Helplessness Confusion Cognitive interference Cognitive exhaustion	Give up. (Elias, Rothbaum, & Gara, 1986; Wills, McNamara, & Vaccaro, 1995, from Carver, Scheier, & Weintraub, 1989) Reduce the amount of effort. (Wills et al., 1995, from Carver et al., 1989) There is nothing I could do. (O'Brien et al., 1995)
Escape Behavioural avoidance Mental withdrawal Denial Wishful thinking	Try to stay away from the problem. (Ayers et al., 1996) Avoid it by going somewhere else. (Ayers et al., 1996) Avoid the people who made you feel bad. (Ayers et al., 1996) You tried to stay away from things that made you feel upset. (Ayers et al., 1996) You wished that things were better. (Connor-Smith et al., 2000) You wished that bad things wouldn't happen. (Connor-Smith et al., 2000) You imagined how you'd like things to be. (Connor-Smith et al., 2000) You daydreamed that everything was okay. (Connor-Smith et al., 2000) I try not to feel anything. (Connor-Smith et al., 2000) I try not to think about it, to forget all about it. (Connor-Smith et al., 2000) I try to stay away from people and things that make me feel upset or remind me of the problem. (Connor-Smith et al., 2000) I act like the problems never happened. (Connor-Smith et al., 2000) I say to myself "This isn't real." (Connor-Smith et al., 2000) I try to believe in never happened. (Connor-Smith et al., 2000) I wish that I were smarter, etc. so that things would be different. (Connor-Smith et al., 2000)

	<p>I wish it would just go away, that everything would work itself out. (Connor-Smith et al., 2000)</p> <p>I wish that someone would just come and get me out of the mess. (Connor-Smith et al., 2000)</p> <p>Wished you were a stronger person, more optimistic, and forceful. (Halstead, Johnson, & Cunningham, 1993)</p> <p>Wished that you could change what had happened. (Halstead et al., 1993)</p> <p>Wish that you could change the way you felt. (Halstead et al., 1993)</p> <p>Wished that the situation would go away or somehow be over with. (Halstead et al., 1993)</p> <p>Hoped a miracle would happen. (Halstead et al., 1993)</p> <p>Daydreamed or imagined a better place than the one you were in. (Halstead et al., 1993)</p> <p>Had fantasies or wishes about how things might turn out. (Halstead et al., 1993)</p> <p>Thought about fantastic or unreal things (like the perfect revenge; Halstead et al., 1993)</p> <p>Went on as if nothing had happened. (Halstead et al., 1993)</p> <p>Kept others from knowing how bad things were (Halstead et al., 1993)</p> <p>Use drugs; smoke, drink alcohol (Patterson & McCubbin, 1987)</p> <p>Try to away from [school] as much as possible (Patterson & McCubbin, 1987)</p> <p>Tell yourself the problem is not important (Patterson & McCubbin, 1987)</p> <p>Leave situation (Altshuler, Genevro, Ruble, & Bornstein, 1995)</p> <p>Sleep/close eyes/ nap (Altshuler et al., 1995)</p> <p>Try to get out of it/argue (Altshuler et al., 1995)</p> <p>Go somewhere else/go outside (Altshuler et al., 1995)</p> <p>Deny that situation exists (Altshuler et al., 1995)</p> <p>Don't think about it (Altshuler et al., 1995)</p> <p>Wished the problem never happened (Ayers, Sandler, Bernzweig, Harrison, Wampler, & Lustig, 1989, in Kliewer, 1991)</p> <p>Walked away (Ayers et al., 1989, in Kliewer, 1991)</p> <p>Staying away from kids who fight or tease (Band & Weisz, 1988)</p>
<p>Self-reliance</p> <p>Emotion regulation</p> <p>Behaviour regulation</p> <p>Emotional expression</p> <p>Emotion approach</p>	<p>I get help from other people when I'm trying to figure out how to deal with my feelings. (Connor-Smith et al., 2000)</p> <p>I do something to calm myself down when I'm having problems (with other kids). (Connor-Smith et al., 2000)</p> <p>I keep my feelings under control when I have to, then let them out when they won't make things worse. (Connor-Smith et al., 2000)</p> <p>I let someone or something know how I feel. (Connor-Smith et al., 2000)</p> <p>I let my feelings out [different ways] (Connor-Smith et al., 2000)</p> <p>I get sympathy, understanding, or support from someone. (Connor-Smith et al., 2000)</p> <p>I cried, etc. (Ayers et al., 1989, in Kliewer, 1991)</p> <p>Took a long walk. (Ayers et al., 1989, in Kliewer, 1991)</p> <p>Comforting self/talk (attempts to alleviate fears and discomfort; Curry & Ross, 1985)</p> <p>Laughing, etc. (O'Brien et al., 1995)</p>
<p>Support-seeking</p> <p>Contact-seeking</p>	<p>Talk to someone to find out what to do. (Walker et al., 1997)</p> <p>Ask someone for help. (Walker et al., 1997)</p>

Comfort-seeking Instrumental aid Social referencing	Ask someone for ideas about what you can do. (Walker et al., 1997) Stay close to someone who cares about you. (Walker et al., 1997) Talk to someone who will understand how you feel. (Walker et al., 1997) Talk to someone so that you'll feel better. (Walker et al., 1997)
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TABLE 2. SOURCES OF STRESS AS SELF-REPORTED BY THIRD GRADERS

Domain	Frequency*
<i>Academics</i>	
Pace & time constraints	13
Challenges of learning & comprehension	10
Academic workload	10
Challenges of memory & retention	5
Small-group work issues	5
Boredom	4
Learning distractions	3
General fatigue	3
Performance outcomes	3
Lack of autonomy over tasks	2
Criticism from others (teacher and classmates)	2
<i>Peers</i>	
Verbal conflict	18
Bullying & teasing	3
Gossip	2
<i>Friends</i>	
Friend in trouble	6
Direct conflict	5
<i>Teachers</i>	
Discipline & order	8
Student-teacher personality conflict	1

Note: * refers to the number of separate references made by the sample ($n = 16$).

TABLE 3. SOURCES OF RELIEF AS SELF-REPORTED BY THIRD GRADERS

Domain	Frequency*
<i>Academics</i>	
Favorite subjects	8
Classroom activities	7
Easy tasks	7
Creative projects	7
Overcoming challenges	5
Curriculum	5
Routine change	4
Appropriate challenges	3
Tests	2
<i>Teachers</i>	
Teacher personality	12
Instructional style	7
Use of positive reinforcement	4
<i>Friends</i>	
Time with friends	16
Building friendships	5
<i>Unstructured Time</i>	
Time outside of classroom (recess or lunch)	13
Private time (reading)	5
<i>Peers</i>	
Cooperation in class	7
Positive mood	2
<i>School Setting</i>	6

Note: * refers to the number of separate references made by the sample ($n = 16$).

TABLE 4. THIRD GRADERS' COPING STRATEGIES FOR SCHOOL-RELATED STRESS

Coping Strategy	Description
Unassisted Problem Solving (UPS)	Creates a strategy or strategies to manage a stressful situation without assistance from others.
Assisted Problem Solving - Child (APS-Child)	Solicits ideas from other children which could be incorporated into a strategy or strategies to manage a stressful situation.
- Adult (APS-Adult)	Solicits ideas from adults which could be incorporated into a strategy or strategies to manage a stressful situation.
Comfort-Seeking - Child (CS-Child)	Searches for emotional support from other children in response to a stressful situation.
- Adult (CS-Adult)	Searches for emotional support from adults in response to a stressful situation.
Letting Go (LG)	Frees oneself from a stressful situation both emotionally and mentally with intent to "move on." LG is often present in situations that include a perceived lack of stability and lack of control.
Distraction (DS)	Finds enjoyable activities or thoughts which are intended to change one's focus to manage a stressful situation.
Support-Giving (SG)	Offers ideas for problem solving and/or emotional support for comfort intended to help another person manage an apparent stressful situation.
Aggression (AG)	Uses verbal threats and/or physical intimidation and/or attacks in response to a stressful situation.
Withdrawal (WI)	Maneuvers a stressful situation by removing oneself from the situation physical or mentally.
Avoidance (AV)	Maneuvers an <i>anticipated</i> stressor by removing oneself from the situation physical or mentally.

Note: Table 3 describes coping strategies that were reported by participating students in the present study and is not intended to be a comprehensive taxonomy of all possible coping strategies.

TABLE 5. THIRD GRADERS' COPING STRATEGIES USED TO MANAGE PEER CONFLICT

Coping Strategy	Frequency ¹
Unassisted Problem Solving (UPS)	5
Letting Go (LG)	4
Comfort-Seeking	
- Child (CS-Child)	4
- Adult (CS-Adult)	2
Assisted Problem Solving	
- Child (APS-Child)	2
- Adult (APS-Adult)	2
Distraction (DS)	2
Aggression (AG)	2
Withdrawal (WI)	2
Avoidance (AV)	1

Note: ¹refers to the number of separate experiences provided by the students ($n = 10$).

TABLE 6. AGGREGATE SCORES OF PERCEIVED SCHOOL STRESS ($n = 61$ STUDENTS)

	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
Composite School Stress (CSS)	1.00	3.89	1.97	.58	.70	.70
Learning Challenges	1.00	3.97	1.89	1.04	1.04	1.70
Peer (in class)	1.00	4.23	2.05	.70	.92	1.01
Peer (recess/lunch)	1.00	4.00	2.01	.67	.68	.35
Teacher	1.00	4.15	1.97	.72	1.02	.95

TABLE 7. SCORES OF PERCEIVED SCHOOL STRESS AS A FUNCTION OF GRADE LEVEL ($N = 61$ STUDENTS)

	Grade 3	Grade 4	Grade 5	<i>F</i>
Composite School Stress (CSS)	1.82	2.29	1.83	4.93*
Learning Challenges	1.72	2.24	1.73	6.07**
Peer (in class)	1.89	2.39	1.89	3.77*
Peer (recess/lunch)	1.84	2.41	1.81	6.19**
Teacher	1.74	2.34	1.83	4.36*

Note: * $p < .05$. ** $p < .01$.

TABLE 8. REPORTED COPING STRATEGIES IN RESPONSE TO (RETROSPECTIVE) PERFORMANCE CHALLENGES

Coping Strategy	Description	Student Examples
Acknowledging a Change in Self is Needed (ACSN)	Recognizes that change is needed for a different outcome in the future but has a generic, non-specific strategy; often involves a likelihood of control and reoccurrence	<p>“I was mad at myself. I need to work harder to improve the grade.”</p> <p>“I thought I should have studied more.”</p> <p>“I could have done better, and I’ll have to study harder and do more work.”</p> <p>“I need to work harder, but I understand that it’s the first quarter and we learn a lot of new things.”</p>
Assisted Problem Solving – Adult (APS-Adult)	Solicits ideas from adults which could be incorporated into a strategy or strategies to manage a stressful situation.	<p>“I worked with my parents.”</p> <p>“Later, I’ll ask the teacher for extra credit.”</p>
Expecting Situational Change (EXSC)	Anticipates that circumstances will improve and therefore no change or action within the self is necessary for the outcome to change; outcome is often unexpected and involves a likelihood of reoccurrence	<p>“I was surprised because I thought I was going to do better. I didn’t do anything different.”</p> <p>“I felt okay because I did alright but didn’t meet my all-A’s goal. So I said ‘I tried my best’ and didn’t get angry.”</p>
Unassisted Problem Solving (UPS)	Has a realized strategy or strategies to manage a stressful situation without assistance from others.	<p>“I underlined and showed my work and tried harder.”</p> <p>“I started to study more so I can get better scores this time.”</p> <p>“I realized after what my mistakes were and worked harder [...] like, read the instructions and follow directions.”</p> <p>“I went home and practiced the questions I missed.”</p>
Worrying About	Experiences a state of anxiety	“It feels like the end of the

Consequences (WAC)	that includes anticipation that the outcome will produce additional stress; often fails to consider future opportunities	world. It's so frustrating and I just want to cry." "I was really sad because the teacher would be sad." "I was sad and worried about getting yelled by my parents."
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TABLE 9. REPORTED COPING STRATEGIES IN RESPONSE TO PEER CONFLICT

Coping Strategy	Description
Aggression	Uses verbal threats and/or physical intimidation and/or attacks in response to a stressful situation.
Attempting to Ignore	Tries to pay no attention to the source of stress while remaining in the situation
Calling for Backup	Seeks help from another individual (child or adult) either in order to attenuate the stressful situation or fix the situation altogether
Cool Down	Uses relaxation strategies to regain focus and reduce tension
Demanding Change	Shows persuasion or persistence to eventually effect change in another person
Helplessness	Believes that any action will be futile; Takes no action and remains in situation
Letting Go	Frees oneself from a stressful situation both emotionally and mentally with intent to “move on.” LG is often present in situations that include a perceived lack of stability and lack of control.
Withdrawal	Maneuvers a stressful situation by removing oneself from the situation physical or mentally.

TABLE 10. PRIMARY SOURCES OF STUDENTS' SCHOOL STRESS AS IDENTIFIED BY TEACHERS

Domain	Frequency*
<i>Classroom climate</i>	2
Adults' expectations of students	1
Learning distractions	1
<i>Learning setbacks</i>	3
<i>Curriculum issues</i>	5
Pace of the curriculum	3
Workload amount	2
<i>Learning activities</i>	14
Group responsibilities	
Leadership roles	1
Cooperation with other students	1
Individual student responsibilities	
Being "singled out" from others	
Public-speaking	4
Specific classes (e.g., P.E., music)	2
Personal challenges with task management	5
Thinking creatively	1
<i>Peer concerns (social, non-academic)</i>	7
<i>Performance assessment</i>	7

Note: * refers to the number of separate references made by the sample ($n = 8$).

TABLE 11. TEACHERS' RECOMMENDATIONS TO HELP STUDENTS MANAGE STRESS

Objectives and Strategies for Teacher Practice

1. *Establish student-teacher trust.*

- Can be built through honest and authentic discussions about school life.
- Giving students opportunities to have a voice.
- Develop healthy expectations of students' academic and behavior.
- Promote consistency in one's one response to stress and model how to cope in healthy ways.
- Present oneself as an ally for learning.

2. *Create individual opportunities to listen.*

- Allow the child to tell the story regardless of outside information you may already have.
- Brainstorm possible ways to cope with the problem without "hinting" at a certain method.

3. *Create group transparency.*

- Give students a whole-class opportunity to discuss how they are feeling.
- Encourage students to air "dirty laundry" in the presence of others so all can learn from it.
- Allow students to share positive ways they had solved a problem.

4. *Pay attention to behavior change.*

- Identify daily shifts in body language, facial expression, general attitude, focus and memory, repeated requests to leave the classroom (e.g., nurse's office, bathroom).
- Observe whether there are behavior differences between inside and outside the class.

5. *Refer to stress as a challenge for personal growth.*

- Frame stress as opportunities to learn and develop.
- With anticipated stress (e.g., upcoming tests), present the task as a formidable opponent.

6. *Help children evaluate their own behavior and consequences.*

- Encourage students to analyze an undesirable outcome and hypothesize its causes.
- Foster proactive coping strategies (what can we control and not control?).
- Promote flexible thinking by guiding students to take another person's perspective.

7. *Encourage students to compartmentalize stress.*

- Remind students that problems are often context-specific to avoid catastrophizing.
- Help students to buffer the effects of outside problems (e.g., playground conflict) on class behavior (learning, interactions with classmates).

8. *Monitor student behavior when in pairs and small groups.*

- Pay attention to students who are off task, as this may be a cause and effect of stress.
- If a student is having a rough day, observe how the classmate(s) responds.

9. *Give students an opportunity to call for backup.*

Allow students to invite friends for assistance as added control over the stressor.
Try to avoid “singling out” students during group or whole-class activities.

10. *Know when you (the teacher) need to call for backup.*

Take time to think about what you can do to help students get through a problem.

Be prepared to seek help from other adults (other teachers, parents, administrators, mental health staff) when appropriate.

11. *Acknowledge learning sometimes is secondary.*

Remind yourself that effective learning occurs when moments of tensions are managed first.

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