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A Randomized Experimental Evaluation of the *Tribes* Learning Communities Prevention Program

Final report

October 2011

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A RANDOMIZED EXPERIMENTAL EVALUATION OF THE *TRIBES* LEARNING COMMUNITIES (*TLC*) PREVENTION PROGRAM

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A RANDOMIZED EXPERIMENTAL EVALUATION OF THE *TRIBES* LEARNING COMMUNITIES (TLC) PREVENTION PROGRAM

Abstract

School-based violence prevention programs are often designed to reduce aggressive, violent or otherwise disruptive behavior in school, and to ameliorate risk factors for later violence or promote protective factors enhancing resiliency. *Tribes* is an intensive universal prevention strategy implemented in the class for the entire academic year, with children organized into smaller learning groups (i.e., “tribes”) and teachers trained to facilitate positive classroom climate, respect for others, teamwork, building of relationships, and accountability. The Tribes program has been listed as a promising prevention program by the Office of Juvenile Justice and Delinquency Prevention, and by a number of other “best practice lists.” Almost no rigorous, experimental research has been conducted on the impact of *Tribes* on risk or protective factors or on longer-term child and classroom outcomes.

To respond to this need, WestEd conducted a randomized trial to evaluate the impact of *Tribes* on 1st-4th grade classrooms and students. We examined program impacts on the classroom environment and teacher practices, student protective factors against violence, and disruptive and disorderly behavior. Impacts on student outcomes were assessed immediately after one academic year of exposure to *Tribes* and six months after students left their *Tribes*’ classrooms.

The results provided little evidence that *Tribes* impacted teacher reports about the classroom environment or instructional practices. None of the estimated impacts on teacher survey measures were statistically or substantively significant. For the outcomes based on classroom observations, however, the analyses indicated that *Tribes* classrooms manifested more opportunities for small-group work, student collaboration, and student reflection; and students in *Tribes* classrooms appeared to be more engaged and exhibited more sharing behavior.

The impact evaluation provided a mixed picture of the effects of *Tribes* on student outcomes, with beneficial effects observed for some outcomes and students, and detrimental effects observed for others. Little evidence was provided that *Tribes* had sustained impacts on student outcomes six months after leaving a *Tribes* classroom. In the short-term, however, *Tribes* appeared to have more beneficial impacts for boys and more detrimental impacts for girls. Boys in *Tribes* classrooms exhibited higher scores than those on control classrooms on teacher reports of intrapersonal and affective strengths and parent reports of intrapersonal strengths. Boys also had lower scores on parent reports of rule-breaking behavior. Few significant impacts of *Tribes* were detected for girls, with the exception that deleterious effects on student test scores were found.

A RANDOMIZED EXPERIMENTAL EVALUATION OF THE TRIBES LEARNING COMMUNITIES (TLC) PREVENTION PROGRAM

Executive Summary

Most schools in the United States have adopted a school-based violence prevention program, which is not surprising given that schools have long been the setting for implementing preventative strategies for a wide range of negative outcomes including substance abuse, obesity, dating violence, and Internet victimization. Most school-based violence prevention programs are designed to reduce children’s aggressive and disruptive behavior in and out of school, and to reduce the likelihood of a child’s later involvement in antisocial and criminal behavior.

Tribes is a universal prevention strategy based on a strong literature emphasizing that intervention programs should be based on fostering resiliency (rather than just addressing risk factors in children) and utilizing the classroom as an agent of change. The program is designed to be implemented in the whole class, not just for pull-out students, and is also to be incorporated into the entire academic year and curriculum. Although the program has several components, the key features include having children organized into smaller learning groups (i.e., *Tribes*), and teachers receiving specialized training to use a number of strategies to facilitate a nurturing classroom climate, including respect for others, teamwork, building of relationships, and accountability.

Instead of a set curriculum, *Tribes* utilizes an array of strategies to teach and reinforce collaborative skills. Students and teachers agree to honor four critical agreements while in the classroom: (1) to listen attentively to one another, (2) to show appreciation for one another, (3) to show mutual respect, and (4) to agree that all students have the right not to participate in *Tribes*-related activities in which they would rather not participate. Positive expectations and beliefs are triggered within *Tribes* classrooms by helping students learn to set goals, define expectations for themselves and their learning group, and reflect on what was learned and how it was learned after every group learning experience. Through the practices of reflection and appreciation, peers acknowledge each other for their contributions and discover their own strengths and assets. Twelve collaborative skills are learned so that students can work effectively together. The skills are woven into curriculum as “social learning objectives” and are assessed along with both “personal” and “content learning objectives.”

Unfortunately, there is a paucity of rigorous impact evaluations for most violence prevention strategies, including school-based approaches. This is also true for *Tribes*. The Office of

Juvenile Justice and Delinquency Prevention lists *Tribes* as a promising prevention program due to prior studies, including one randomized trial, but that was a relatively small study that only compared *Tribes* and control students on disciplinary infractions. Two quasi-experiments looked at well-implemented *Tribes* classrooms and compared those to lesser implemented treatment classrooms and to comparison classrooms. There has been, however, no experimental study of *Tribes*' impact on a wider range of classroom or student outcomes, nor has any study attempted to conduct a follow-up beyond the implementation year. This randomized controlled trial was conducted to provide a further test of *Tribes* and to add to the growing literature on school-based violence prevention programs.

Research Questions

WestEd conducted this study to respond to four research questions:

1. Does *Tribes* improve the classroom environment?
2. Does *Tribes* improve the promote teacher practices that facilitate pro-social, non-violent behavior?
3. Does *Tribes* promote protective factors against violence and reduce disruptive and disorderly behavior?
4. Does *Tribes* have a sustained effect six months after leaving a *Tribes* classroom?

Methodology

To answer these four research questions, WestEd implemented a cluster randomized trial to evaluate the impact of *Tribes* on 1st-4th grade classrooms and students in San Francisco and several other California school districts. The study was designed in two phases: Phase I examined the impacts of *Tribes* after one academic year of exposure. Phase II examined the potential sustained program impacts six- months after student exposure to one full academic year of *Tribes* in grades 3 and 4. Also, because of rapid social, emotional, and intellectual development at younger ages when students first enter school and learn to read, separate studies were conducted for 1st and 2nd grade students (study A) and 3rd and 4th students (study B). Finally, because of difficulties with recruiting sufficient number of schools, the study was comprised of two cohorts: Cohort 1 implemented the program during academic year September 2007-June 2008 (N= 69 classrooms) and Cohort 2 implemented the program during academic year September 2008-June 2009 (N=97 classrooms).

Because teachers in elementary school are assigned to one class, by randomizing participating teachers, the study essentially randomized 166 classrooms to implement Tribes (N=84) or to a wait-list control group that would continue to use practice-as-usual until data collection was completed (N=82). Thirteen teachers (8 in treatment and 5 in control) were excluded from the sample because they moved out of school or to an ineligible grade following randomization and before the school year. In total, 2,309 students and 153 teachers/classrooms were included in the study (N=79 treatment classrooms and 74 control classrooms in the final sample). Data analyses by and large indicated randomization produced relatively balanced groups, and factors that did differ across treatment and control groups at baseline were used as covariates in the impact analyses, likely controlling any potentially confounding influence they could have on the outcomes.

Because treatment and control classrooms would be operating in the same school, contamination (leakage of the treatment program into control classrooms) was a concern, but WestEd tried to minimize this by reinforcing the importance of the study design to participating teachers.

A wide range of data were collected during the study. Multiple, repeated measures, for the most part, were utilized. This included a specially designed teacher survey of instructional practices to measure implementation and fidelity of the program, a checklist that combined items from the *Achenbach Child Behavior Checklist* (ABCL) and the *Behavioral and Emotional Rating Scale* (BERS-2) for teachers and parents to rate children's pro-social and antisocial behavior, direct observations by trained researchers of classrooms to assess classroom environment (no pretest was possible), and individual student interviews to assess moral judgment (no pretest was possible) were employed with treatment and control samples of teachers and students. Archival data of pretest and posttest student academic performance were also collected. (Note that archival disciplinary data were collected but turned out to be so rare for this sample of elementary students that it could not be used). Data were gathered in four major outcome areas linked to the four research questions that organized this work: teacher practices and program fidelity; classroom environment; student behavior and reasoning about harm and violence; and sustained positive effects on student behavior.

Implementation Results

As designed, the *Tribes* professional development consisted of 24 hours of training spread across three days. The course material consists of eight modules, each approximately three hours

long. Participating teachers also received onsite follow-up support to aid implementation, ensure fidelity, and address implementation challenges. A certified *Tribes* trainer visited each school site for one day during the implementation year and primarily worked with teachers on an individual basis. Of the 79 teachers in the intervention group in the implementation year, 69 (87%) completed the full *Tribes* training, and 78 (99%) attended at least one of the three days of offered training or remote training. Moreover, 73 (92%) teachers participated in the on-site follow-up training during the implementation year.

Despite WestEd's efforts to only select teachers to participate who had not been exposed to the program, participating teachers had a high degree of familiarity with, and prior exposure to, *Tribes*. Prior to random assignment, a non-trivial proportion of the sample reported prior use of the program in their classrooms. A substantial minority used *Tribes* in the year before program implementation in this study (21%) and even more had used it in the years before that (32%). Nearly two in ten (19%) reported receiving *Tribes* training from colleagues and 7% (9 teachers) even reported receiving *Tribes* training from CenterSource, the developer of the program. Although baseline intervention/control group differences in reported exposure to *Tribes* were not statistically significant for four of the five measures of prior exposure, several showed substantial differences and almost all were in favor of the control group. For example, 76% of control group teachers and 55% of intervention group teachers reported working with teachers who had been trained to use *Tribes* – a statistically significant difference. This difference was also apparent in the grade 1-2 sample. For the grade 3-4 sample, over 41% of control group teachers reported using *Tribes* prior to the pre-intervention year, compared to 17% of treatment teachers.

Analyses of teacher reports of the use of *Tribes* in their classrooms and implementation of *Tribes*-aligned activities indicated a substantial contrast between intervention and control teachers in implementation. Depending on the activity asked about, between 84% and 96% of intervention group teachers reported that they implemented *Tribes*-aligned activities at least weekly in their classroom, compared to 25% to 32% among control teachers. The most frequent activities implemented in intervention classrooms were community agreements, small group work (pairs, triads, and/or small groups), and direct teaching of collaborative skills. Approximately 80% of intervention group teachers reported implementing these activities two or more times per week, 40-52 percent one or more times per day. Classroom time was also frequently used for student reflection on content, social, and personal learning – 67% of intervention group teachers reported that they devoted time for student reflection two or more times per week. Although still commonly used, classroom time was less frequently used for community circles (52% two or more times per

week) and the *Tribes* group development process (51% two or more times per week) than for the other activities.

Impact Results

WestEd estimated impacts of *Tribes* on the classroom environment, teacher practices, and student protective factors against violence and disruptive and disorderly behavior. Impacts on student outcomes were assessed immediately after one academic year of exposure to *Tribes* and six months after students left their *Tribes*' classrooms.

Classroom environment or instructional practices. The results provide little evidence that *Tribes* impacted *teacher reports* about the classroom environment or instructional practices. For the overall sample, none of the estimated impacts on teacher survey measures were statistically or substantively significant.

Conversely, for the outcomes based on classroom observations, the analyses indicated that there were statistically significant impacts on the classroom environment. *Tribes* classrooms received higher observer ratings than control classrooms on opportunities for small group work, collaboration, and reflection than control classrooms. Moreover, observer ratings of student engagement ($p < .10$) and student sharing ($p < .10$) were higher in *Tribes* classrooms than in control classrooms, although these differences were not statistically significant at conventional levels. Overall, the results for classroom observation outcomes suggest that *Tribes* impacted the classroom environment and student classroom behavior in ways consistent with the *Tribes* model. Compared to the control group, *Tribes* classrooms manifested more opportunities for small group work, student collaboration, and student reflection; and students in *Tribes* classrooms appeared to be more engaged and exhibited more sharing behavior. Such impacts, however, were not found for the teacher survey outcomes.

Student emotional and behavioral outcomes. Did *Tribes* improve students' emotional and behavioral strengths and reduce student aggression and other problem behavior? Overall, the impact evaluation presents a mixed picture of the effects of *Tribes* on student outcomes, with beneficial effects observed for some outcomes and students, and detrimental effects observed for others. For the overall sample, *Tribes* appeared to have more beneficial impacts for boys and more detrimental impacts for girls. Boys in *Tribes* classrooms exhibited higher scores than those in control classrooms on teacher reports of intrapersonal and affective strengths and parent reports of intrapersonal strengths. Boys also had lower scores on parent reports of rule-breaking behavior. But for the grade 1-2 sample, *Tribes* impact on boys' problem behavior differed according to

whether the teacher or parent was reporting about the behavior. *Tribes* increased boys' aggressive and rule-breaking behavior according to teachers, but decreased parent-reported rule-breaking behavior. These conflicting results are consistent with the notion that *Tribes* may have provided more opportunities for students, particularly boys, to demonstrate aggressive and rule-breaking behavior in *Tribes* classrooms, but not in other contexts.

For the grade 3-4 sample, boys in *Tribes* classrooms exhibited higher scores than those in control classrooms on teacher reports of interpersonal strengths, intrapersonal strengths, and school functioning. According to teachers, they also demonstrated lower levels of aggressive and rule-breaking behavior, and fewer social and attention problems.

Few significant impacts of *Tribes* were detected for girls, with a deleterious effect being most consistent. For the grade 1-4 sample, girls in *Tribes* classrooms exhibited substantially lower test scores than girls in control classrooms in English language arts and mathematics. We are unsure why *Tribes* would be associated with declines in academic performance, particularly for girls only, although we speculate that the transition to a *Tribes*-oriented classroom could be associated with a disruption in classroom management practices or challenge instructional time, and such a disruption could have adverse consequences for some students' performance. It is also possible that the organization of students into small groups with mixed levels of academic performance and behavior problems could have been associated with reductions in school performance for girls. Not all the estimated impacts of *Tribes* were negative for girls, however. For the grade 1-2 sample, *Tribes* increased girls' scores on the parent-reported measures of emotional and behavioral strengths.

Little evidence was provided that *Tribes* impacted the interview measures of student judgments about conflict resolution strategies. And little evidence was provided that impacts for *Tribes* were sustained or emerged during the six month follow-up post-program implementation.

Implications of the research

This randomized controlled trial achieved strong fidelity to the initial study design. Over 150 classrooms were randomized to treatment conditions, involving over 2,000 students. There was limited attrition from the study (13 of 166 randomly assigned teachers). Pretests of baseline equivalence indicated few differences between groups with the exception of pre-study exposure to *Tribes* amongst control group teachers, a factor that was later controlled for and neutralized in the impact analyses. The study achieved very high rates of data collection completion for nearly all measures, and there were very few differences between the groups in data collection response rates.

This study thus contributes a rigorous impact evaluation to the knowledge base on school-based violence prevention programs.

Nonetheless, the experiment was conducted at the classroom level. Although we do not believe contamination was a contributing factor to the observed results, the study design may have impacted the “culture” of support for the program. Tribes developers would argue their program is best implemented as a wider school or district initiative; the study design limited it to classroom implementation. This meant that the culture of support for the program was limited to just a few teachers in each grade that implemented Tribes; in some of the smaller elementary schools in cohort 1, for example, only one other teacher in the same grade might have been teaching the program. A randomized controlled trial of schools to study the impact of Tribes on bullying is currently being conducted in Canada and should shed light on how a school-wide implementation of Tribes impacts results.

Unfortunately, the study did not result in an unequivocal pattern of results. Instead, the results are inconsistent from data source to data source, and across the different study sub-samples (A & B). For example, although trained observers detected very positive impacts of Tribes on the classroom environment, a critical part of the program’s theory, data from teachers did not support this. This leads to questions about which one is right. It is possible that observers, although “blind” to which classrooms were program or control, were able to figure it out and were somehow influenced by that to consistently “find” the positive outcomes for classrooms in the treatment classrooms. Another possible explanation is while teachers were able to implement the key components of the model (when observed), using these practices consistently and integrating them into their daily routines over the academic year may have been challenging. This is consistent with the developer’s observation, and reason for follow-up coaching, that integrating Tribes practices into one’s regular curriculum is a common challenge for teachers. One implication is that more time for coaching or follow-up training may need to be built into the program to increase consistency in practice and fidelity to the model.

In yet another example of inconsistent results, there were differences across parent and teacher ratings of child behavior for the 1st and 2nd grade sub-sample (Study A), with teacher data indicating a negative program effect and parent data indicating a positive impact. This finding may be consistent with the notion that *Tribes* may provide more opportunities for 1st and 2nd grade students, particularly boys, to demonstrate aggressive and rule-breaking behavior in *Tribes* classrooms, but not in other contexts. The program provides many opportunities for interactions

with peers, and *Tribes* teachers are sensitive to signs of aggressive and anti-social behavior in the groups. This may impact teacher ratings of behavior.

The limited evidence of impact on classroom environment and instructional practices may also be related to changing pedagogical trends. In other words, while an emphasis on positive student behaviors and student centered teaching practices may have been new and innovative when *Tribes* was developed 30 years ago, that is no longer the case. Small group, hand's on activities and cooperative learning, for example, are more common and part of mainstream practice than before. While WestEd was concerned about overt and subtle contamination across treatment and control classrooms, it is quite possible that contamination was not necessary. A large percentage of control classroom teachers were already familiar with *Tribes*. Although our teacher data showed some large differences between treatment and control teachers in actual implementation of the distinguishing features of *Tribes*, the question is whether the difference was a stark enough contrast to produce a "tipping effect" and provide the environment for a positive impact. One implication for the program and research is to more clearly delineate *Tribes*-specific practices and the value-added to classrooms.

Yet another puzzling finding was the negative impact on academic performance for girls, especially on English Language Arts (ELA) test scores. We speculate that since tests were administered at the same point as teachers were learning to use *Tribes* in their classrooms, the attention towards *Tribes* may have affected instructional time in a way that may have led to adverse consequences for girls.

Chapter I: Introduction and Study Overview

Approximately 75% of American schools have instituted a violence prevention program (Gottfredson, et al. 2000). There are two major reasons for this. First, although U.S. educational institutions remain comparatively safe places for children (relative to their time out of school), data indicate that fighting, bullying, and other aggressive or disruptive behavior are fairly widespread, even in earlier grades (Wilson and Lipsey, 2006). For example, the 1999 National Youth Risk Behavior Survey indicated that 14% of children self-reported being in a fight in the prior year (Wilson and Lipsey, 2006). According to the National Assessment of Educational Progress (NAEP), approximately ten percent of fourth graders in 2002 were from schools in which a school official indicated that physical conflicts were a “moderate or serious problem” (see www.edcounts.edweek.org). Eight percent of school children were victimized by a crime during school hours in 1999 (National Center for Education Statistics, 2001). Disruptive and otherwise undisciplined behavior by schoolchildren can hinder the teaching-learning process, elevate parent and school staff fears, and decrease children’s own perceptions of safety and security (e.g., Juvonen, 2001). Thus, school-based violence prevention programs are designed to promote school safety, discipline, and learning.

Second, as Gottfredson (1997) notes, the school represents the perfect setting for prevention programs. It is the only institution that provides access to millions of children throughout their important developmental years. Research also underscores that problems during childhood and adolescence generally manifest themselves later in adulthood (e.g., Gottfredson, 1997). For example, Lipsey and Wilson (1998) reported that criminal behavior or drug use at ages 6-11 were the strongest predictors of serious or violent offending during ages 15-25. A well-timed and effective prevention program delivered in the schools to young children that interrupted this cycle of escalation could reduce the frequency of later problems as adolescents and adults, leading to a reduction of human misery and financial costs. Indeed, Rand researchers indicated that investing one dollar in prevention could save seven dollars in subsequent criminal justice, health care, and other costs (Greenwood, et al., 1998).

Need for Study

Finding effective strategies to employ, however, has been elusive. For example, the University of Colorado Center for the Study of Violence Prevention examined the evaluation evidence for several hundred programs; only eleven, based on the quality of this evidence, could be designated as Blueprints for Violence Prevention (Mihalic, et al., 2001). Likewise, the University of Maryland researchers reviewed 500 evaluations in their Report to Congress on Crime Prevention, finding reasonable evidence to claim that only 15 programs “worked” (Sherman, et al., 1997). As Sherman et al. (1997) noted, most prevention programs are not evaluated, and when they are, the studies are often not rigorous enough to rule out whether confounding influences were responsible for any observed effects. Clearly, rigorous evaluations are needed of promising school-based violence prevention strategies. In particular, randomized experiments (randomized controlled trials) are recommended, as they produce – when implemented with good integrity – statistically unbiased estimates of program impact (e.g., Boruch, 1997).

In concert with the need for high-quality evaluations, WestEd conducted a “cluster randomized trial” (i.e., place-based trial) to test a promising school-based violence prevention program known as *Tribes* (also known as *Tribes Learning Communities* or *Tribes TLC*). *Tribes* has been recognized as a promising school-based prevention program by a number of best practice lists, including the Office of Juvenile Justice Delinquency Prevention (2005), and the Collaborative for Academic, Social and Emotional Learning (2004). Rather than simply delivering a violence prevention curriculum, *Tribes* is a group-development process that emphasizes protective factors fostering healthy human development and resilience. The *Tribes* program is a whole-classroom (even whole-school in some districts) strategy that is implemented throughout the academic year. Teachers receive training and professional development to strengthen their ability to facilitate a caring and supportive culture in which teaching and class structure nurtures child development and student learning needs. In short, *Tribes* is a program that addresses school violence by promoting positive classroom culture (e.g., Gottfredson, 1997) and by addressing risk and protective factors for violence in young children and later childhood, adolescent, and adult aggression.

Further underscoring the need for this high-quality evaluation is the fact that *Tribes* is very popular and widely used. *Tribes Learning Communities* have already been implemented in thousands of urban, rural, and multi-cultural schools throughout the United States, and many other countries including Canada, Australia, Japan, China, Ecuador, Senegal, and Micronesia. Although beginning in elementary schools, *Tribes Learning Communities* are now implemented in a range of settings from middle and high schools, to pre-schools and after-school programs. (More information on *Tribes* can be found at the program’s website at www.Tribes.com.)

There has been some earlier evaluation research on *Tribes*, leading to its “promising” designation on best practice lists. For example, Holt (1993) conducted a randomized trial of *Tribes* programs in Oklahoma and found students in *Tribes* classrooms were significantly less likely than non-*Tribes* students to be referred for all types of disciplinary problems, including disruptive behavior and fighting. Other non-randomized evaluations have reported positive effects for *Tribes* on educational outcomes, including significantly higher test scores for students involved in well-implemented *Tribes* classrooms (e.g., Chesswas, et al., 2003). However, no experimental studies examining the impact of *Tribes* on student behavior after they leave the *Tribes* classroom have been conducted, nor have any studies measured changes on protective factors as a result of *Tribes*.

Research Questions and Hypotheses

The goal of this study was to experimentally test the effectiveness of *Tribes* in preventing aggressive, disruptive, or violent behavior. The major research questions guiding this evaluation were:

1. Does *Tribes* improve the classroom environment?
2. Does *Tribes* improve the promote teacher practices that facilitate pro-social, non-violent behavior?
3. Does *Tribes* promote protective factors against violence and reduce disruptive and disorderly behavior?
4. Does *Tribes* have a sustained effect six months after leaving a *Tribes* classroom?

We investigated the following specific hypotheses:

1. *Classroom environment*. There will be differences in classroom environments and student behaviors between the experimental and control classrooms as a result of using *Tribes*. Measurable change will be seen in teacher-reported levels of disruptive behavior, collegiality, and democratic group practices.

2. *Teacher Practice and Program Fidelity.* Teaching practices that promote multiple opportunities for participation and contribution, the development of a caring classroom culture with democratic group practices, and positive behavioral and learning expectations for all students will increase in *Tribes* classrooms when compared to control classrooms.
3. *Student Behavior, Strengths, and Attitudes.* Students in *Tribes* (intervention) classrooms will exhibit lower levels of externalizing problems and disruptive behavior, higher levels of emotional and behavioral strengths (i.e., interpersonal, intrapersonal, school, and affective), and more pro-social attitudes about conflict resolution than their counterparts in non-*Tribes* (control) classrooms.
4. *Sustained Effects.* Students who participated in *Tribes* (intervention) will exhibit lower levels of anti-social behaviors and risk factors for later violence and higher levels of pro-social behaviors than students from control classrooms in a six-month follow-up period.

Organization of the Report

This report is organized into six chapters. Following this overview, Chapter II summarizes the relevant literature on resilience and protective factors in school environments that promote positive developmental outcomes as well as the school-based violence and crime prevention literature on characteristics of effective prevention efforts, including a review of the studies conducted about *Tribes* to date. Chapter III describes the research design and sample recruitment, and provides a discussion of research methods, including a detailed description of instrumentation, data collection procedures, and analysis strategies. We also provide details on the sample characteristics and baseline equivalence between intervention and control groups. A description of the intended and actual implementation of *Tribes Learning Communities* follows in Chapter IV. Chapter V presents findings regarding impacts on classroom environments, teacher practices, and student outcomes, including both risk and positive developmental behaviors, students perceptions regarding conflict resolution strategies, and standardized achievement scores. Finally, Chapter VI summarizes key findings and their implications.

Chapter II. Review of Relevant Literature

Over the past two decades, a growing body of research on resilience – children and adults who remain or become successful despite being at-risk – has identified a consistent pattern of *protective factors* that buffer the adverse effects of risk and promote positive adaptation (Anthony, 1974; Garmezy, 1974; Murphy and Moriarity, 1976; Rutter, 1979; Werner and Smith, 1982). Although research on the factors that place children at risk for violence and other antisocial behavior has received considerable attention in the criminological and public health literature (e.g., Surgeon General’s Report on Youth Violence, 2001), there has been a parallel and growing literature on those protective factors that promote a child’s resiliency (e.g., Anthony, 1974; Garmezy, 1974; Murphy & Moriarity, 1976; Rutter, 1979; Werner & Smith, 1982). Although risk factors identify target populations for intervention, resiliency research – which has its roots in developmental psychopathology -- has given prevention practitioners direction in developing their programs and strategies.

These protective factors that mediate risk and promote positive developmental outcomes operate at both individual and environmental levels (e.g., Garmezy, 1985; Masten & Coatsworth, 1998; Werner & Smith, 1982). At the individual level, these factors can be grouped into four broad categories of positive development: (1) social competence, (2) autonomy/identity, (3) problem solving, and (4) sense of purpose and future (e.g., Benard, 1991; 2004). These four competencies and attitudes have consistently been linked to pro-social behaviors when present and antisocial behaviors when they are not. Importantly, they appear to remain relatively constant across communities, cultures, and time -- leading child development researchers to refer to them as *developmental tasks* (e.g., Masten & Coatsworth, 1998).

At the environmental level, research has consistently found that families, schools, and communities rich in protective factors of caring relationships, high expectation messages, and opportunities for meaningful participation and contribution provide a “protective shield” (e.g., Garmezy, 1991). Evidence from high-quality evaluations shows that prevention programs incorporating protective attributes such as “caring relationships” have reported positive results on a variety of social, emotional, educational, and other outcomes. This includes evaluations of developmental mentoring (e.g., Tierney et al., 1995), early childhood programs (e.g., Schweinhart & Weikart, 1997), cooperative learning (e.g., Johnson & Johnson, 1983; Slavin, 1995); service-learning (e.g., Melchior, 1998), and adventure/active learning (e.g., Hattie et al., 1997; Slavin, 1997)

In fact, in their classic experimental study of schools in poverty areas, Rutter and his colleagues (1979) reported that high schools providing protective factors (e.g., caring relationships, high expectations message, opportunities for meaningful participation/contribution) actually experienced a *decrease* in delinquency and dropping out while the control group experienced increases.

Resiliency and protective factor research by Rutter, et al. (1979) and others has also underscored the import of “linkages” in the protective process, i.e., the relationship between individual and environmental protective factors. As Werner and Smith (1982) explain, resilience is really a *transactional* process of environmental protective factors motivating individual “self-righting,” the protective adaptation processes often referred to as human needs (e.g., Masten & Reed, 2002). In other words, resilience-based interventions are based on a theory of change: (1) changing the environmental protective factors will engage children’s intrinsic motivational needs (e.g., for safety, love and belonging, respect and power, challenge and mastery, and meaning); (2) this will promote the development of core protective factors (e.g., social competence, autonomy and identity, problem solving, and sense of purpose and future); and, finally, (3) this will result in desired prevention outcomes, such as reduction in problem behaviors (e.g., violence and antisocial behavior, classroom disruption, school failure).

The research of Werner and Smith (e.g., 1982; 1992) emphasizes the normative developmental supports and opportunities that change life trajectories from risk to resilience. The implications of this work for prevention programs serving children and youth with multiple risk factors are that strategies must be implemented within the developmental contexts of children’s lives – their families, schools, and communities. Rather than using “pull-out” programs that isolate and separate children at-risk from their peers, resiliency-based programs would implement programming through an inclusive process that keeps children (or moves them to) a pro-social peer environment.

Can changes in the school or classroom environment – apart from families and communities – lead to resiliency and decreases in violent and other negative behavior? A key finding in resilience research for youth has been the power of classrooms and schools to be a turnaround setting (Kellam, 1998). That schools can be the setting for effective prevention – even for difficult social problems like crime, drugs and violence – is borne out by recent reviews and meta-analyses (e.g., Derzon & Wilson, 1999; Gottfredson, 1997; Kellam et al., 1998; Mytton et al., 2002; Tobler et al., 2000). For children at-risk due to family or community circumstances, the classroom and school can serve as a safe haven or “protective shield” where they can encounter

adults and peers who provide a culture of caring relationships, high expectation messages, and opportunities for meaningful participation and contribution to the school community. Kellam et al. (1999) note that, “The classroom context is vitally important socially, and it is also malleable, giving us hope that severe aggressive behavior over the course of a child’s development can be prevented if teachers are provided with effective methods of classroom behavior management.”

In addition, longitudinal studies and experiments indicate that the delivery of prevention programs to young children in the early grade levels can have transformative impact on school violence and individual aggression. For example, Kellam, Ensminger, and colleagues (Ensminger et al., 1983; Kellam, 1975; Kellam et al., 1998) have found a significant association between elementary classroom (primarily grade 1) environment and the development of aggressive behavior, especially in boys. Their research also indicates that the variation in aggression was explained more by what was going on in the classroom than at the school level (Kellam, et al., 1998). Differences in levels of aggressive behavior at the *classroom* level emerged as early as the first quarter of first grade. This suggested that classroom culture played an important role in classroom aggression levels, especially the failure of the teacher to create “an integrated social system” in the classroom. Of critical importance was the finding that the aggressive child’s behavioral problems persisted into middle school (Kellam, et al., 1998). They write: “Perhaps the experience of the aggressive child in an aggressive first-grade classroom sets the pattern for the child’s behavioral responses, poor achievement, membership in similarly behaving peer groups, and detachment from school” (Kellam, et al., 1999:).

It is clear from meta-analyses and reviews of broader school-based violence and crime prevention efforts that the delivery of one-shot curricula and other low-investment strategies is not likely to be effective (e.g., Gottfredson, 1997). Instead, such programs should be time-intensive prevention efforts that (1) include both environmental and individual change strategies; (2) are “aimed at building school capacity to initiate and sustain innovation..., and at clarifying and communicating norms about behaviors;” and (3) are “comprehensive instructional programs that focus on a range of social competency skills that are delivered over a long period of time to continually reinforce skills.”

One prevention program that incorporates these critical characteristics and focuses on both the individual and environmental protective factors is *Tribes Learning Communities (Tribes TLC)*. Teachers undergo three to four consecutive days (24 hours) of intensive professional development training, supplemented by coaching, to prepare them to implement the *Tribes* classroom program. Following this training, teachers establish and implement what they learned over the full academic

year. The *Tribes* program emphasizes the creation in the classroom of a supportive environment that will activate the protective factors that foster human development and individual resilience – caring relationships, positive expectations and beliefs, and opportunities for participation and contribution. With the goal of *developing the whole child's* learning (social, emotional, intellectual, physical and moral/ethical), teachers establish a *caring classroom culture* through a set of classroom agreements and group development processes (such as cooperative learning groups or “*Tribes*”). The caring culture and supportive relationships develop safety, trust, and collaboration – the foundation for social, emotional, and academic learning.

Positive expectations and beliefs are triggered within the *Tribes* classrooms by helping students learn to set goals, define expectations for themselves and their learning group, and reflect on what was learned and how it was learned after every group learning experience. Through the practices of reflection and appreciation, peers acknowledge each other for their contributions and discover their own strengths and assets. Finally, students have multiple opportunities for participation and contribution through membership in *Tribes* and through active learning structures. Twelve collaborative skills are learned so that students can work effectively together. The skills are woven into curriculum as “social learning objectives” and are assessed along with both “personal” and “content learning objectives.” *Tribes*, therefore, is a program built on a strong, underlying theory of resiliency and protective factors.

Although *Tribes* is recognized as a promising program, evaluations of the outcomes and impact of *Tribes* have been somewhat limited. Kiger’s (2000) study of the effectiveness and impact of the *Tribes* process compared the test scores of 53 students from “highly effective” (well-implemented) *Tribes* classrooms to 47 students in “less effective” *Tribes* classrooms. He reported that when the program was well implemented, fourth grade students scored significantly higher on the Comprehensive Test of Basic Skills than students in less-well implemented classrooms. In a quasi-experimental evaluation, WestEd researchers (Chesswas et al., 2004) compared student achievement gains for treatment and comparison schools. Like the earlier Kiger (2000) study, standardized reading and math achievement test scores of students from “high performing” *Tribes* classrooms were compared with those of two groups: students from “low-performing *Tribes* classrooms and a non-equivalent comparison group of students from non-*Tribes* classrooms. Chesswas et al. found that “student achievement in high growth classrooms showed scores in fifth grade reading, second grade mathematics, and fifth grade mathematics that increased more than in comparison classrooms” (Chesswas, et al., 2003:20). Further, high performing *Tribes* classrooms showed “evidence of improved student inclusion, respect for multicultural populations, sense of

value, collaboration, safe and supportive learning environments and resiliency from teachers, students and principals” (Chesswas, et al., 2003:20). However, both of these studies compared results for those classrooms in which *Tribes* was well-implemented, a practice that is helpful to the program’s designers and current users but is less than optimal for policy makers and other decision-makers in who are interested in the program’s demonstrated impacts.

In the only previous randomized trial of *Tribes*, Holt (1993) randomly assigned about 280 sixth grade students to either a treatment or control groups. Using the number and type of discipline referrals as an outcome measure, Holt found that students in *Tribes* classrooms were significantly less likely than non-*Tribes* students to be referred for disruptive behavior, fighting, and refusal to work/follow-through.

One study, also an experimental study, is currently still in the field. In Canada, researchers with funding from the Social Sciences and Humanities Research Council of Canada are testing *Tribes* to determine its impact on school climate, bullying and other student behaviors. Forty elementary schools were randomized to participate in *Tribes* or usual practice. A report on the study is not expected until 2012 or beyond. The Canada study, along with the study reported here, will add considerable knowledge about the impact of *Tribes* under rigorous experimental conditions.

Chapter III. Study Design and Methodology

Research Design

Two Phases, Two Studies, and Two Cohorts

In order to rigorously test the effectiveness of the *Tribes* Program in preventing youth violence, a *true, group-randomized, experimental design* was used with *repeated measures* (Cook & Campbell 1979; Murray 1998). The study was designed in two phases: Phase I examines impacts after one academic year of exposure to *Tribes*. Phase II examines the potential sustained program impacts six- months after student exposure to one full academic year of *Tribes* in grades 3 and 4.

Also, because of rapid social, emotional, and intellectual development at younger ages when students first enter school and learn to read, separate studies were conducted for 1st and 2nd grade students (study A) and 3rd and 4th students (study B).¹ As aforementioned, within recruited schools, classrooms (i.e., teachers) were randomly assigned to one of two different groups—an experimental group of *Tribes* classrooms and a wait-listed control group of classrooms implementing treatment-as-usual practices. Teachers in the control group and other grades had the opportunity to receive *Tribes* training after the evaluation.

To examine the sustained effects of *Tribes*, Phase II focused on students in study B and collected follow-up data for students in grade 3 (who were then in grade 4 during the follow-up) and were assigned to 4th grade control classrooms, and students who were in grade 4 who were assigned to grade 5 classrooms. We chose the grade 4 students because none of their grade 5 teachers were trained on *Tribes yet*, thus providing a good opportunity to examine uncontaminated sustained effects of the program on the 4rd grade students (now in 5th grade). By delaying training until after follow-up measures were collected, we also included students who were assigned to control teacher classrooms in their subsequent grades. This design balanced the desire on the part of schools and *Tribes* staff to institute the program throughout the whole school with the need to reduce the likelihood of contamination during the period between the post implementation and follow-up data collection. Delaying the training by six months – instead of twelve – allowed schools the option of implementing *Tribes* in all grades, but at a slightly slower pace.

¹ Our original proposal called for the study to be implemented in K-3rd grades, but it was modified from the originally proposed design to grades 1-4. This was because, upon reflection, Kindergarten classes are considered very different from 1st-4th grades; in fact, the Achenbach form used for Kindergarten students is different.

Due to recruitment problems in Year 1 (see the later section on Sample Recruitment), we were unable to recruit all of the necessary schools and classrooms to implement the full study in the first implementation year. Thus, only seven schools and about 43% of the classrooms started in the 2007-2008 academic year and are considered Cohort 1. The remaining schools and classrooms had their first year of implementation in the 2008-2009 academic year and are considered Cohort 2.

Exhibit 3.1 (below) illustrates the full research design. As shown under Teachers and Students, Phase I of the study (discussed above) was conducted over 18 months starting in spring 2007 for Cohort 1 and summer 2008 for Cohort 2. Prior to random assignment, Cohort 1 teachers were assessed during spring 2007 (summer 2008 for Cohort 2 teachers), and again, after program implementation, in spring 2008 (spring 2009 for Cohort 2 teachers). Baseline measures for students were collected at the same time. For the most part, *Tribes* professional development was delivered during the summer and fall prior to the beginning of implementation.

Figure 3.1. Research Design and Measurement Points

COHORT 1	SPRING 07 (BASELINE)		2007/08 (PHASE I)				2008/09 (PHASE II)			
COHORT 2	SUMMER 08 (BASELINE)		2008/09 (PHASE I)				2009/10 (PHASE II)			
	Spring 07	Sum 08	Sum	Fall	Winter	Spring	Sum	Fall	Winter	Spring
TEACHERS (K-4)										
» Treatment	0	0	PD	Tribes		0 0			0 0	
» Control	0	0	TxU	TxU		0 0			0 0 PD	
STUDENTS										
<i>Study A</i>										
Kindergarten										
» Treatment	0	0								
» Control	0	0								
1st Grade										
» Treatment	0	0		Tribes		0 0				
» Control	0	0		TxU		0 0				
<i>Study B</i>										
2nd Grade										
» Treatment	0	0		Tribes		0 0				
» Control	0	0		TxU		0 0				
3rd Grade										
» Treatment	0	0		Tribes		0 0				
» Control	0	0		TxU		0 0				
4th Grade										
» Treatment				Tribes		0 0		0 0		Tribes
» Control				TxU		0 0		0 0		Tribes
5th Grade										
» Treatment								0 0		Tribes
» Control								0 0		Tribes

0 = Observation or measurement point for Cohort 1
 0 = Observation or measurement point for Cohort 2
 PD = Professional Development
 Tribes = Tribes Implementation
 TxU = Treatment as usual
 Yellow areas correspond to Study A student cohort tracked across one year (Phase I only)
 Green areas correspond to Study B student cohort tracked across two years (Phase I and II)

Among students, observations or measurement points (O) occurred before and after the implementation of the intervention, in spring 2007 (Cohort 1) /summer 2008 (Cohort 2) and spring 2008 (Cohort 1)/2009 (Cohort 2) respectively, for *Tribes* and treatment-as-usual conditions (TxU). In the final year (Phase II), we assessed students in winter to evaluate the degree to which program impacts were apparent 6 months after exposure to the program. To enhance statistical power, 2nd thru 4th grade teacher- and classroom-level data were pooled in the analyses. To account for developmental differences among children, separate analyses of 1st/2nd grade students (Study A) and 3rd/4th grade students (Study B) were conducted. Mixed-modeling procedures (see Analyses section below) were used to detect treatment effects on student

outcomes. Classical regression modeling procedures were used to estimate program impacts on classroom and teacher outcomes. As is discussed in more detail below, the evaluation was powered to detect study-specific small program impacts on student outcomes. Table 3.1 describes key design features of the study.

Table 3.1. Study characteristics and data collection schedule for Tribes impact evaluation

Study design	Cluster-randomized trial
Unit of assignment	Teachers and their classrooms
Sample characteristics	2,309 students served by 153 teachers in 13 schools—teachers assigned to the intervention condition had the opportunity to implement <i>Tribes</i> in grades 1–4 for one year.
Statistical power estimates	For Type 1 error = .05, 80% or higher power to detect MDES of 0.21-0.31 for student outcomes and 0.34 for teacher and classroom outcomes.
Implementation period	Cohort 1: 2007/08 academic year; Cohort 2: 2008/09 academic year
Teacher measures	
<ul style="list-style-type: none"> • Student classroom behavior • Teaching practices and activities 	Cohort 1: spring 2007, spring 2008, winter 2009 Cohort 2: spring 2008, spring 2009, winter 2010
Classroom environment measures	
<ul style="list-style-type: none"> • Types of group work, room arrangements, opportunities to practice group behaviors promoted by <i>Tribes</i>, student behavior consistent with that promoted by <i>Tribes</i>. 	Cohort 1: Feb/March 2008, April/May 2008 Cohort 2: Jan/Feb 2009. May/June 2009
Student measures	
Teacher-reported measures	Cohort 1: spring 2007, spring 2008, winter 2009 Cohort 2: spring 2008, spring 2009, winter 2010
<ul style="list-style-type: none"> • Interpersonal strengths, intrapersonal strengths, school functioning, affective strength, aggressive behavior, rule-breaking behavior, social problems, and attention problems 	
Parent-reported measures	Cohort 1: spring 2008, winter 2009 Cohort 2: spring 2009, winter 2010
<ul style="list-style-type: none"> • Interpersonal strengths, intrapersonal strengths, school functioning, affective strength, aggressive behavior, rule-breaking behavior, social problems, and attention problems 	
Student Interviews (grades 3-4)	Cohort 1: Feb/March 2008, April/May 2008 Cohort 2: Jan/Feb 2009. May/June 2009
<ul style="list-style-type: none"> • Student judgments about prosocial concepts, antisocial attitudes, and behaviors 	
Standardized test scores (grades 2-4)	Cohort 1: spring 2007, 2008, 2009 Cohort 2: spring 2008, 2009, 2010
<ul style="list-style-type: none"> • English language arts & Mathematics 	

Sample Recruitment

Recruitment of Districts and Schools

Recruitment of districts and schools for the study began in February, 2006. The project targeted districts and schools that were ethnically and economically diverse, with staff who were interested in implementing *Tribes* and willing to support a randomized trial research design. Initially, the project targeted 18 elementary schools in three counties (Thurston, Lewis and Mason) in Western Washington, served by Educational School District 119, for the field test of *Tribes Learning Communities*. But by the start of the project, the district had begun to implement an intensive “power standards” educational initiative that was taking up considerable teacher time and energy. Schools initially interested and supportive of *Tribes* were now reluctant to implement across the necessary grade levels for fear of further exceeding teacher capacity. The WestEd team also did not want to implement an important and rigorous field test without full cooperation and support of district and school staff.

After exploring several options, WestEd targeted a single city: Albuquerque, New Mexico. In addition to its diverse population, Albuquerque had more recorded crime and violence than Western Washington, and the city was served by a single school district, Albuquerque Public Schools (APS). APS presented many advantages over Western Washington. It had, at least in 2006, over 80 mostly large sized elementary schools, presenting opportunity for recruiting plenty of classrooms within the targeted grade levels. The schools were located in both urban and rural settings across the city, but were closer in proximity to one another than the Eastern Washington schools, providing diversity while simultaneously reducing travel and training costs. But the slow pace of negotiation was followed by rejection of our research application due to concerns about the burdens the experiment would place on district, school and staff resources in light of other district priorities (e.g., a newly adopted district wide mathematics curriculum to meet No Child Left Behind [NCLB] objectives).

For similar reasons, six other districts WestEd contacted and attempted to recruit declined to participate. Initial discussions with several other large school districts and charter schools were begun at the same time we were discussing the experimental field trial with APS, to ensure that the study had back-up sites should negotiations with APS fall through. But while expressing their interest initially, either the timing of the field trial and/or implementation of other, new district wide programs made it difficult for these districts to commit to participating in a randomized field

trial. Additionally, schools that were eager to implement the *Tribes* curriculum sometimes had issues with the randomized grade level design of the experiment.

To meet the challenge of recruiting schools for the field trial, and to do so within the planning period of the NIJ grant, we modified our recruitment strategy. Instead of individual phone calls and letters sent to schools and districts, we relied on one of WestEd’s existing listservs (the “California Healthy Kids Survey” listserv) to solicit participation in the field trial.² Within 24 hours, we received three responses, including a very positive one from a representative of the San Francisco Unified School District (SFUSD).

Initially, we avoided recruitment in California due to concern that *Tribes* had been in the state for many years, and that there was already a “saturation effect.” Moreover, there was a general belief among WestEd staff that California public schools were already inundated with NCLB and state education initiatives. But responses from the listserv indicated otherwise. Although SFUSD was familiar with *Tribes*, they had not used the program in many years, and even after we excluded all SFUSD schools that used *Tribes* or a similar program (“Caring Communities”), a large pool of schools for the study remained. Unfortunately, SFUSD was not able to recruit the 15-20 elementary schools needed to satisfy the design requirements before the end of the school year, due to its consolidation of elementary schools as a result of budget cuts. Additionally, because class sizes are typically larger in the upper elementary grades in California and therefore provided fewer classrooms, we had to recruit even more schools in SFUSD than anticipated to reach the required number of upper grade classrooms for the study.

As mentioned earlier, to successfully implement the experiment, we modified the research design to include two cohorts: seven SFUSD schools with nearly half the required classrooms entered the experiment in the Fall of 2007, and the remaining schools (from four other districts in addition to SFUSD) began in Fall 2008. For Cohort 2, our recruitment strategy focused on schools instead of districts using a mass mailing to elementary schools in the larger Bay Area. Year-round schools were initially targeted, followed by public and charter schools. By the end of June 2008, an additional four schools were recruited; however, recruitment of teachers had to wait until staff returned in August 2008.

In both cohorts, the participating schools and districts were asked to sign a memorandum of understanding (MOU) that detailed the study design (in which half of study participants would

² The California Healthy Kids Survey is a statewide survey of students that was mandated at the time of the study for all schools that received Title IV funding in California. WestEd is the contractor that collects and analyzes the survey data. To facilitate school participation in the survey, WestEd created and runs a listserv to communicate with local education authorities.

be randomly assigned to receive *Tribes* training, and the other half would have the opportunity for training 18 months later). Districts signing the MOU also agreed to the 18-month time commitment, coordination of professional development schedules to accommodate *Tribes* training, and access to demographic, disciplinary, and state standardized test data. School MOUs included more details on study requirements for participating teachers in Phase I and II of the field trial. In addition, the study required each school to designate a staff person as site coordinator to facilitate data collection activities at each school.

Recruitment of Teachers

While obtaining the consent of district superintendents and principals was an initial challenge, recruiting teachers to a classroom based randomized field trial presented additional challenges. Presentations at staff meetings about the field trial, samples of the data collection instruments, and handouts detailing study requirements (discussed in presentations and the *Tribes* training) reinforced the necessity that those teachers assigned to the experimental group (and therefore would receive training first) had to avoid sharing *Tribes* strategies with teachers assigned to the control group (who would receive their *Tribes* training later).

Of the 208 potential teachers in the eligibility pool, 166 returned consent forms and 42 either directly or indirectly refused to participate. Of the teachers who did not return the form, follow-up efforts revealed that most of these teachers had either retired, moved to other positions in the district, went on maternity leave, or left the district altogether. Additional efforts were made to recruit teachers hired late within the SFUSD via personal contacts and phone calls, and with the assistance of the site coordinator. Once we received signed consent forms from teachers indicating their agreement to participate, we randomized them into two groups (to teach *Tribes* or to teach using their normal routine).

Recruitment of Students

The procedures used to secure parental permission for student study participation differed between Cohort 1 and Cohort 2 schools. For Cohort 1, institutional review board requirements called for written parental permission (active parental consent) for students to participate in the study. Despite repeated efforts, however, significant difficulties were encountered in securing parental consent forms, with greater difficulty in low-performing schools with large percentages of ethnic minorities. Because of these difficulties, a formal exemption from institutional review was requested for Cohort 2 schools. The exemption was approved, recognizing that the study was investigating normal educational practices in a standard educational setting. As a result, no

consent documents were required for Cohort 2, although active consent was still obtained for students selected to participate in interviews. All grade 1-4 students in Cohort 2 schools and their parents were notified of the study and given the chance to opt out if they preferred by sending in a signed form asking that their child not participate (passive parental consent). Thus, active parental consent was required for Cohort 1 students and passive consent was required for most Cohort 2 students. These differences in consent requirements resulted in large differences in student study participation rates across the two cohorts.

For Cohort 1, materials requesting parental consent were distributed to site coordinators at each school in spring 2007 (prior to the first implementation year). Site coordinators, in turn, ensured that consent forms were distributed to all parents of students in grades k-3. After the consent materials were first distributed to parents, they were then redistributed periodically to those parents who had not yet returned consent forms. Subsequently, in fall 2007, materials requesting parental consent were distributed to parents of newly enrolled students in grades 1-4 and to parents who had not returned consent forms during the prior spring.

To account for potential biases introduced by the non-return of consent forms in Cohort 1, a non-response sub-sampling strategy was implemented in November 2007. Similar to the strategy used in the Moving to Opportunity (Orr et al. 2003) and DC Voucher (Wolf et al. 2009) evaluations, up to seven students/parents among those who did not return informed consent forms were randomly sampled within each classroom for more intensive follow-up. Teachers and/or administrators were provided with compensation to secure informed consent forms for these cases. To help reduce non-response bias in the analyses, weights were applied to successfully recruited students in the subsample so that such students would represent those who did not return informed consent forms but were not randomly sampled. Successfully recruited students were weighted by the inverse of the sampling rate in each class.³ We sampled 331 out of 918 Cohort 1 students (36.0%) for more intensive consent return follow-up. Of those, we were able to obtain consent forms from 252 parents (76.1%), of which 70% provided positive consent. The weighted return and participation rates for Cohort 1 were 87.1% and 55.3%, respectively.

³ For example, if 11 students in a classroom did not return consent forms, we randomly sampled seven of those 11 students for more intensive follow-up. If four of the seven sampled students were successfully recruited, we weighted the 4 cases by the inverse of the within-class sampling rate, or 11/7. Note that students who had already returned consent forms received a weight of 1.

Random Assignment

Classes (i.e., teachers), not students or schools, served as the unit of randomization. All potential participants were informed at the outset that they had a 50% chance of being assigned to the immediate or delayed intervention. Analytical procedures recommended by Raudenbush (1997) and Murray (1998) were followed to account for the probability that students were clustered within classrooms. Random assignment was conducted using the random number algorithm of the Stata 10.1 statistical package (StataCorp 2007). Half of the participating classrooms within each school and grade were randomly assigned to intervention and control groups

Several steps were taken to ensure that the control group was not contaminated. First, face-to-face meetings were held with all potential study teachers in participating schools. In these meetings, we discussed the nature of the study and professional obligations regarding giving the *TLC* program a fair test. We explained why this is important and gave explicit instructions concerning the sharing of materials. Teachers were asked to take this into consideration when deciding whether their school would participate. Once agreeing to participate, these commitments and instructions were reinforced during *Tribes* training sessions for treatment teachers. Finally, responses to teacher survey items regarding whether teachers had received *Tribes* training from the developers before or had used *Tribes* in their classroom in the previous year were used to exclude teachers from the study to reduce contamination in subsequent analyses to ascertain the robustness of the results.

Study Incentives

Schools participating in the study were required to: 1) keep treatment and control teachers in respective grade level assignments over a two-year period, 2) designate someone as project coordinator to facilitate data collection, 3) coordinate professional development schedules and/or days to accommodate *Tribes* training, 4) provide class and staff lists, and student performance data, and 5) assist in communications with staff and the community regarding the project and student participation. In return, participating schools received free training and materials. CenterSource, the developer of *Tribes*, trained all participating treatment and control teachers. In addition, each participating school and district was given the opportunity to send one qualified individual to the *Tribes Training of Trainers (TOT)* workshop. This enabled the school and district to sustain and expand *Tribes* by enabling them to train anyone else in their school or district (irrespective of their participation in the study) once the study was completed—without contracting with CenterSource. In addition, schools were given \$1,000 for their assistance with

the data collection, including their help in obtaining archival data. Follow-up of teachers and parents was a critical activity to data collection, and the coordinator played a pivotal role in timely collection of data. Because of this, for Cohort 2, half of these funds (\$500) were paid directly to designated coordinators for their assistance over the entire study period (Phase I and Phase II).

As a participant, teachers agreed to: 1) be randomly assigned to a treatment or control group, 2) agree to restrict sharing of *Tribes* strategies and information across study groups (i.e., treatment teachers restricted to sharing *Tribes* strategies with other treatment teachers only) until the study was completed, 3) conduct student assessments and complete teacher surveys, and 4) allow classroom observations and pull-out of students from class for interviews. For their assistance with the data collection, teachers who participated in the baseline data collection received \$150. Similarly, those teachers who participated in the post-intervention data collection also received \$150; while those teachers who participated in the data collection in the follow-up study (Phase II) received \$100. Parents were given a choice of two gift cards (Target or Safeway) as an incentive for completion of the parent assessment of their children.

Human Subjects Review

WestEd's Institutional Review Board (IRB) reviewed the proposed work and determined there was a need for Human Subjects Approval and specified that active student consent forms should be used. The evaluators followed the recommendations of the IRB and secured appropriate approval and parental permissions. As described above, the IRB reversed its position in Year 2, indicating that the evaluation met the federal "Common Rule" standards for using passive consent. However, as aforementioned, active consent was still obtained for those students selected to participate in the student interview component. For these selected students only, the parental permission letter and form asked parents to provide permission for their children to participate in two interviews (see appendix F). Students were asked to return the permission form to their classroom teacher. The coordinator collected the forms and forwarded them to the research staff. Before the interview began, students were also verbally asked whether or not they wanted to participate in the interview. No students declined to participate.

Sample Selection and Retention

Teacher Participation

The study targeted all general education teachers and their students in grades 1-4 in participating schools. As described above, 208 teachers were present and eligible to participate in study schools at the beginning of the implementation year. Of these, 166 (79.8%) agreed to participate and were randomly assigned to experimental conditions. Figure 3.2 shows details about the recruitment, mobility, and data return rates of randomly assigned teachers. As shown, 84 teachers were assigned to the intervention group and 82 to the control group. Unequal numbers were assigned to the two groups because, within schools, uneven numbers of teachers were available to be randomized within grades (i.e. 3 or 5 teachers). Of the 166 teachers randomly assigned, 13 (5 intervention and 8 control) were excluded from the sample because they subsequently moved out of the school or to an ineligible grade. Retention and data return rates were high and did not differ by experimental condition (also see Table 3.2). The lowest data return rate was for student interview data, with 88% of eligible classrooms providing such data. Teacher survey, teacher checklist, parent checklist, and test score data were returned by between 94% and 96% of participating classrooms. We describe these data sources in more detail below. As shown in Table 3.2, differences across intervention and control classrooms in teacher participation and data return rates were not statistically significant.

Student Participation

Student study participation was largely determined by enrollment in participating teachers' classrooms and, for Cohort 1, parental consent. Figure 3.3 depicts how the analytic samples were determined across Phase 1 and Phase 2 of the study. The primary analytic sample consists of students with parental consent in participating teachers' classrooms in Year 1. As described above, active parental consent was only required for students in Cohort 1 schools. As shown in Table 3.3, 49% of Cohort 1 students in participating classrooms had positive parental consent.⁴ The remaining 51% did not participate in data collection activities. Because active parental consent was not required in Cohort 2 schools, 100% of students in participating Cohort 2 classrooms participated in the data collection activities.

Overall, 37% of students (1,330 of 3,639) enrolled in participating schools were not included in the analytic sample because they were enrolled in non-participating classrooms (694 -

⁴ Fifty-five percent (55.3%) of Cohort 1 students in participating classrooms had positive parental consent after applying weights to adjust for subsampling of parents followed up because they did not provide consent forms in fall of the implementation year.

19%) or they did not have positive parental consent (636 - 17%). In Phase I, 2,309 of 3,639 enrolled Year-1 students participated in the study – 1,189 1st/2nd grade students and 1,120 3rd/4th grade students. In Year 2, 661 (59%) of the 1,120 participating year-1 3rd/4th grade students enrolled in a 4th grade control classroom (264) or 5th grade classroom (397), and thus were eligible to participate in Phase II of the study.

Assessments based on teacher-report and parent-report data were collected from random samples of participating students in each classroom. Moreover, 3 students in each 3rd/4th grade classroom were randomly selected for student interviews in Phase I. Attempts were made to obtain state standardized test score data for all Phase I students in participating 2nd-4th grade classrooms in Year 1 and follow-up students in 4th-5th grade classrooms in Year 2. In Phase I, data return rates were highest for teacher checklist and test score data (96%-99%), lower for parental checklist data (78%-79%), and lowest for the child interviews (51%-67%). Note that active parental consent was required for the child interviews. Differences across intervention and control classrooms in student participation and archival, teacher-report, and parent-report data return rates were not statistically significant (see Table 3.3). However, 67% of sampled 3rd/4th grade students in intervention classrooms participated in interviews, compared to 51% in control classrooms. This difference was statistically significant, and suggests that different interview participation rates across intervention and control classrooms could potentially bias estimates of program impacts on the interview measures. Analyses of baseline differences between interviewed students in control and intervention classrooms, however, yielded no evidence of non-equivalence, reducing the likelihood of participation-related biases. More details concerning potential pre-intervention differences across intervention and control students who were interviewed are provided below.

In Phase II, data return rates were highest for test score data (99%), followed by teacher checklist data (83%-87%) and parent checklist data (65%-71%). Among 3rd/4th grade students in Year 1, the most important determinant of non-participation in Phase II was assignment to a 4th grade intervention teacher classroom or 5th grade non-participating classroom. Differences in data return rates across intervention and control schools were not statistically significant (Table 3.4).

Figure 3.2. Flow diagram of recruitment and retention of teacher participants

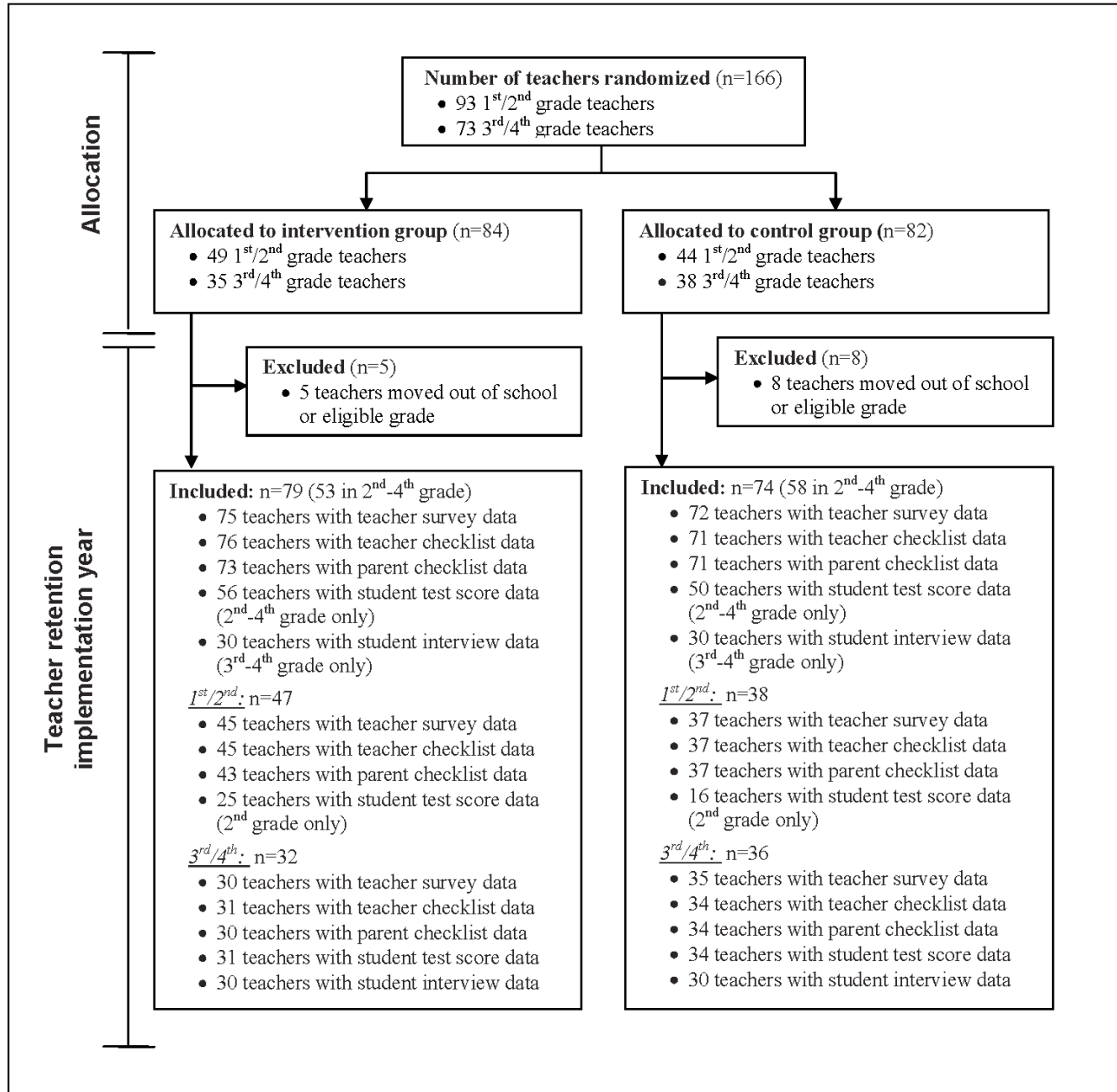


Figure 3.3. Flow diagram detailing student study participation

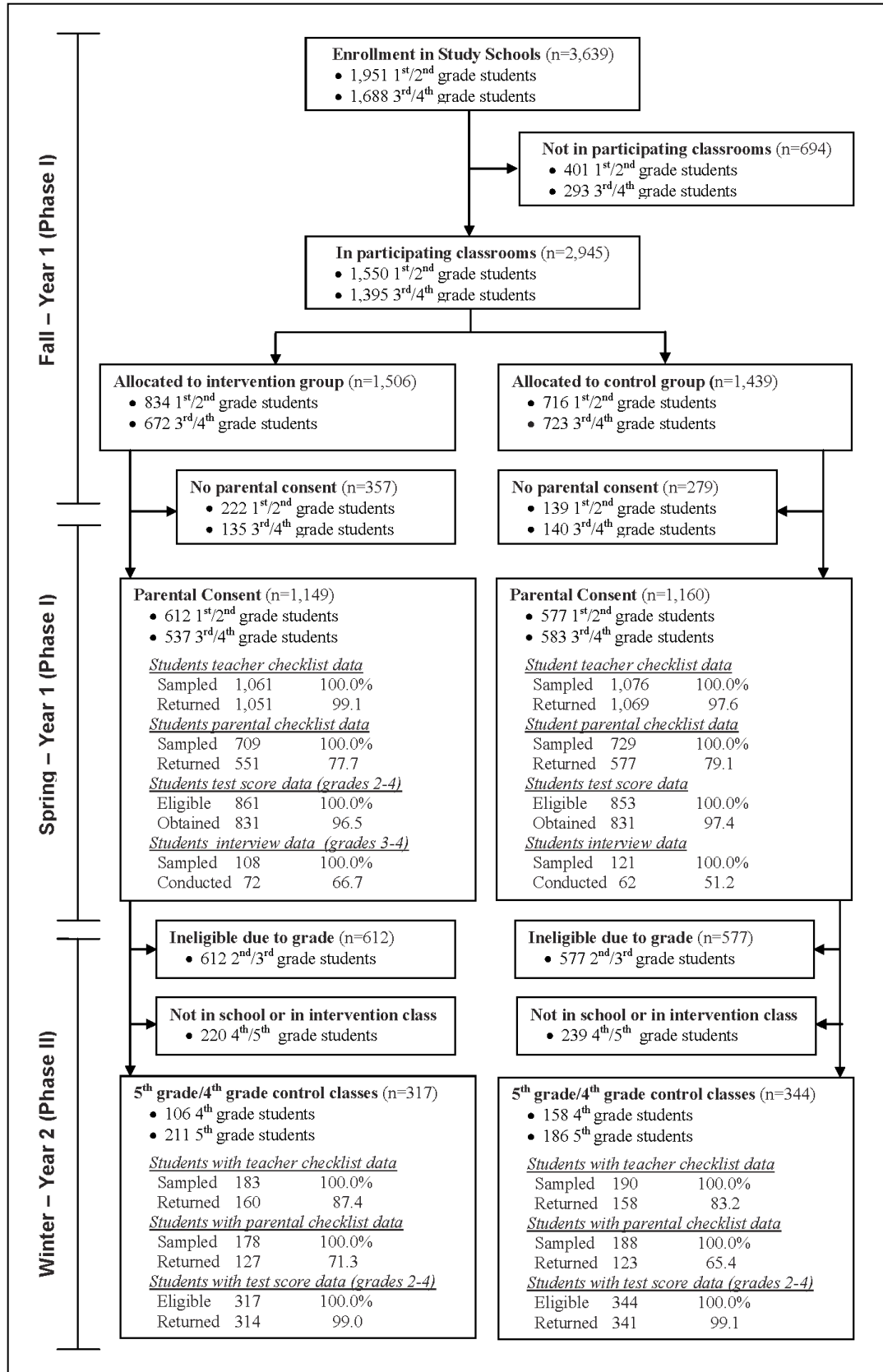


Table 3.2. Participation and data return rates of randomized teachers (Phase I).

	Overall %	Intervention %	Control %	Difference	<i>p</i> -value ^A
All teachers					
Randomized teachers					
Participation rate ^B	92.17	94.05	90.24	3.81	0.40
Participating teachers					
Teacher survey ^C	96.08	94.94	97.30	-2.36	0.68
Teacher checklist ^C	96.08	96.20	95.95	0.25	1.00
Parent checklist ^C	94.12	92.41	95.95	-3.54	0.50
Test score data ^{CD}	95.50	96.55	94.34	2.21	0.67
Interview data ^{CE}	88.24	93.75	83.33	10.42	0.27
1st/2nd grade teachers					
Randomized teachers					
Participation rate	91.04	95.92	86.36	9.56	0.14
Participating teachers					
Teacher survey	96.47	95.74	97.37	-1.63	1.00
Teacher checklist	96.47	95.74	97.37	-1.63	0.37
Parent checklist	94.12	91.49	97.37	-5.88	1.00
Test score data	95.35	96.15	94.12	2.03	1.00
3rd/4th grade teachers					
Randomized teachers					
Participation rate	93.15	91.43	94.74	-3.31	1.00
Participating teachers					
Teacher survey	95.59	93.75	97.22	-3.47	1.00
Teacher checklist	95.59	96.88	94.44	2.44	0.60
Parent checklist	94.12	93.75	94.44	-0.69	1.00
Test score data	95.59	96.88	94.44	2.44	0.54
Interview data	88.24	93.75	83.33	10.42	0.27

Notes. Calculations based on teacher roster, teacher survey, teach checklist, parent checklist, test score, and interview data.

^A Fisher's exact tests were calculated to compute *p*-values (two-sided).

^B The denominator in the participation rate includes all teachers that were randomized to experimental condition.

^C The denominator in the data return rate includes all participating teachers (non-participating randomized teachers were excluded).

^D Grades 2-4 only.

^E Grades 3-4 only

Table 3.3. Participation and data return rates of students (Phase I).

	Overall %	Intervention %	Control %	Difference	<i>p</i> -value ^A
All Students					
Enrolled in schools	100.0				
In participating classrooms	80.9				
With parental consent ^B	78.4	76.3	80.6	-4.3	0.77
Teacher checklist data ^C	99.2	99.1	99.3	-0.2	0.52
Parent checklist data ^C	78.4	77.7	79.1	-1.4	0.55
Test score data ^D	97.0	96.5	97.4	-0.9	0.66
Interview data ^C	58.5	66.7	51.2	15.5	0.02
Cohort 1					
Enrolled in schools	100.0				
In participating classrooms	72.7				
With parental consent ^B	48.7	44.6	53.2	-8.6	0.07
Teacher checklist data ^C	99.3	99.3	99.4	-0.1	0.92
Parent checklist data ^C	82.3	84.6	80.2	4.4	0.49
Test score data ^{DE}	100.0	100.0	100.0	0.0	
Interview data ^{CF}	60.5	66.7	54.8	11.9	0.32
Cohort 2					
Enrolled in schools	100.0				
In participating classrooms	88.2				
With parental consent ^B	100.0	100.0	100.0	0.0	
Teacher checklist data ^C	99.1	99.0	99.3	-0.3	0.52
Parent checklist data ^C	75.8	73.2	78.4	-5.2	0.19
Test score data ^{DE}	96.0	95.5	96.6	-1.1	0.65
Interview data ^{CF}	57.4	66.7	49.4	17.3	0.03
1st/2nd grade students					
Enrolled in schools	100.0				
In participating classrooms	79.4				
With parental consent	76.7	73.4	80.6	-7.2	0.74
Teacher checklist data ^B	99.2	98.9	99.4	-0.5	0.36
Parent checklist data ^B	78.4	74.5	82.4	-7.9	0.10
Test score data ^{BE}	98.0	97.5	98.5	-1.0	0.50
3rd/4th grade students					
Enrolled in schools	100.0				
In participating classrooms	82.6				
With parental consent ^B	80.3	79.9	80.6	-0.7	0.97
Teacher checklist data ^C	99.2	99.2	99.3	-0.1	0.86
Parent checklist data ^C	78.5	81.7	75.5	6.2	0.23
Test score data ^{DE}	96.4	95.9	96.9	-1.0	0.81
Interview data ^{CF}	58.5	66.7	51.2	15.5	0.02

Notes. Calculations based on teacher roster, student roster, teacher checklist, parent checklist, test score, and interview data.

^A A two-tailed test that adjusted for intraclass correlations (student nesting within classrooms) was used to test for differences in participation and data return rates across intervention and control classes.

^B The denominator in the consent rate includes all students that were in participating classrooms.

^C The denominator in the data return rate includes all sampled students with positive parental consent in participating classrooms.

^D The denominator in the data return rate includes all students with positive parental consent in participating classrooms.

^E Grades 2-4 only.

^F Grades 3-4 only.

Table 3.4. Participation and data return rates of students (Phase II).

	Overall %	Intervention %	Control %	Difference	<i>p</i> -val ^A
4th/5th grade students (Year 2)					
Participants enrolled in school – Year 1	100.0				
In 4 th grade control/5 th grade – Year 2	59.0	59.0	59.0	0.0	0.87
Teacher checklist data ^B	85.2	87.4	83.2	4.2	0.47
Parent checklist data ^B	68.3	71.3	65.4	5.9	0.52
Test score data ^C	99.1	99.0	99.1	-0.1	0.89
Cohort 1					
4 th /5 th grade students (Year 2)					
Participants enrolled in school – Year 1	100.0				
In 4 th grade control/5 th grade – Year 2	66.8	69.5	63.9	5.6	0.68
Teacher checklist data ^B	83.1	86.1	79.7	6.4	0.40
Parent checklist data ^B	66.2	69.4	62.5	6.9	0.68
Test score data ^C	100.0	100.0	100.0	0.0	---
Cohort 2					
4 th /5 th grade students (Year 2)					
Participants enrolled in school – Year 1	100.0				
In 4 th grade control/5 th grade – Year 2	56.8	55.7	57.7	-2.0	0.85
Teacher checklist data ^B	86.5	88.3	84.9	3.4	0.64
Parent checklist data ^B	69.6	72.6	66.9	5.7	0.54
Test score data ^C	98.8	98.7	98.9	-0.2	0.82

Notes. Calculations based on teacher roster, student roster, teacher checklist, parent checklist, and test score data.

^A A two-tailed test that adjusted for intraclass correlations (student nesting within classrooms) was used to test for differences in participation and data return rates across intervention and control classes.

^B The denominator in the data return rate includes all sampled students with positive parental consent in participating classrooms.

^C The denominator in the data return rate includes all students with positive parental consent in participating classrooms.

Data Collection

Multiple, repeated measures, including teacher surveys, parent and teacher checklists, direct observations of classrooms, and individual student interviews were employed with treatment and control samples of teachers and students. Archival data, including measures of student academic performance supplemented student outcome measures. Data were gathered in four major outcome areas linked to the four research questions that organized this work: teacher practices and program fidelity; classroom environment; student behavior and reasoning about harm and violence; and sustained positive effects on student behavior. For example, program fidelity and contamination issues were captured by teacher surveys that provided information on the extent to which treatment and control teachers were already using *Tribes* practices or similar classroom strategies (e.g., cooperative learning or classroom agreements). Specific items about

program implementation were included in the post-survey to examine how thoroughly experimental teachers adhered to the *Tribes* classroom process and community agreements. Brief observations of all classrooms using a classroom observation checklist served to validate teacher self-reported survey data.

Table 3.5 describes the outcome measures collected by data source. The schedule for collecting these measures is shown in Table 3.6.

Table 3.5. Measurement matrix of student, teacher, and classroom outcome measures

Construct	Items	Source	Alpha Reliability	Reference
Student outcomes				
<i>Emotional & Behavioral Strengths (BERS-2)</i>				
Interpersonal strengths	15	Teacher/Parent	0.95-0.97	Epstein (2004)
Intrapersonal strengths	11	Teacher/Parent	0.89-0.93	Epstein (2004)
School functioning	9	Teacher/Parent	0.83-0.92	Epstein (2004)
Affective strengths	7	Teacher/Parent	0.79-0.92	Epstein (2004)
<i>Problem Behaviors (ABCL)</i>				
Aggressive behavior	20	Teacher/Parent	0.94-0.95	Achenbach & Rescorla (2001)
Rule-Breaking behavior	9	Teacher/Parent	0.85-0.95	Achenbach & Rescorla (2001)
Social problems	11	Teacher/Parent	0.82	Achenbach & Rescorla (2001)
Attention problems	26	Teacher/Parent	0.86-0.95	Achenbach & Rescorla (2001)
<i>Academic achievement</i>				
English language arts test scores	65-75	Archival records	0.93–0.94	CDE (2010)
Mathematics test scores	65	Archival records	0.93–0.94	CDE (2010)
<i>Reasoning about antisocial behavior</i>				
Acceptance of antisocial behavior	Various	Student Interview	NA	Project developed
Conflict resolution attitudes	Various	Student Interview	NA	Project developed
Teacher/classroom outcomes				
<i>Teacher Practices</i>				
Student centered teaching practices	10	Teacher	0.81-0.83	Project developed
Student reflection practices	4	Teacher	0.83-0.84	Project developed
Student supportive learning practices	8	Teacher	0.82-0.84	Project developed
Cooperative learning groups	5	Teacher	0.80-0.81	Project developed
Small Group Activities	11	Teacher	0.86-0.88	Project developed
<i>Tribes</i> program usage	Various	Teacher	NA	Project developed
Small Group	1	Classroom Observ		
<i>Classroom Environment</i>				
Opportunities for collaboration	1	Classroom Observ	NA	Project developed
Opportunities for reflection	1	Classroom Observ	NA	Project developed
Room arrangements & artifacts	Various	Classroom Observ	NA	Project developed
Student engagement	5	Classroom Observ	0.79	Project developed
Student respectfulness	4	Classroom Observ	0.82	Project developed
Student sharing	3	Classroom Observ	0.67	Project developed

Table 3.6. Data Collection Schedule

Instrument	Cohort 1	Cohort 2
Quantitative Data Collection		
<i>Teacher Survey, ABCL & BERS-2</i>		
Pre-intervention, Baseline	May/June 2007	August 2008
Post-intervention, time 1	May/June 2008	May/June 2009
Post-intervention, time 2	January 2009	January 2010
<i>ABCL-BERS-2 Parent Form</i>		
Post-intervention, time 1	May/June 2008	May/June 2009
Post-intervention, time 2	January 2009	January 2010
<i>Archival Data</i>		
Pre-intervention, Baseline	May 2010 (for 2006-07)	May 2010 (for 2007-08)
Post-intervention, time 1	May 2010 (for 2007-08)	May 2010 (for 2008-09)
Post-intervention, time 2	Nov 2010 (for 2008-09)	Nov 2010 (for 2009-10)
Qualitative Data Collection		
<i>Classroom Observation</i>		
During intervention, time 1	February/March 2008	February/March 2009
During intervention, time 2	April/May 2008	March/April 2009
<i>Student Interviews</i>		
During intervention, time 1	February/March 2008	January/February 2009
During intervention, time 2	April/May 2008	May/June 2009

What follows is a brief description of each data collection instrument and the procedures for collecting these data.

Outcome data collection and measures

Teacher surveys and assessments of students were administered prior to, and at the end of, the intervention (Phase I) to all treatment and control teachers. Parent assessments of students were administered at the end of the implementation year. These same assessments were also administered to all teachers and parents of children involved in the follow-up study at the end of Phase II. Because the teacher assessments required teachers to know students reasonably well, for

the baseline measure, grade K-3 teachers completed the assessments on all students in their classrooms prior to random assignment to classrooms for the intervention year (i.e., as school was ending in the previous year.) Due to recruitment delays, K-3 teachers in Cohort 2 schools completed these forms just before school began. As aforementioned, once class assignments were finalized, ten students from each treatment and control classroom in grades 1-4 were randomly selected. Both teachers and parents completed the post assessments for these students at the end of the school year in which *Tribes* was implemented. The behavioral assessments were combined into a single four page form (see Appendix B). A total of 2,120 students were assessed.

Also as mentioned earlier, as part of school MOU agreements, someone at each school or district was designated to work with WestEd and coordinate the data collection at their site (i.e., site coordinator). In most cases, coordinators were teachers or counselors/health support staff, though occasionally the principal elected to take on this role. Coordinators and principals received an overview of the study, and all necessary instruments, once they agreed to participate; these included the overall timeline, major study activities (e.g., training schedules, data collection), study requirements, and benefits. Packets were prepared for each participating teacher that included directions and deadlines for completing teacher surveys and student assessment forms. In addition, directions and suggested deadlines for distributing and collecting parental consent and student assessment forms were also included.

Just prior to each measurement point (pre/post intervention, follow-up), coordinators and principals received letters and e-mails regarding specific instructions for administering and returning surveys and student assessment checklists to WestEd. Follow-up phone calls to coordinators were made to check on data collection progress and respond to any challenges. Additional phone-calls, e-mails, and in a few instances, on-site assistance, were provided to coordinators and teachers as necessary to ensure that these data were collected in a timely manner, and for as many of the targeted teachers and students as possible.

University of California at Berkeley and Stanford University graduate students, along with WestEd staff, were recruited and trained to collect classroom observation and student interview data. Recommended by faculty in the School of Education at each university or by WestEd project directors, each observer had prior experience teaching and/or conducting classroom observations. Those recruited to conduct the interviews participated in three half-day training sessions to learn, review, and practice specific interviewing techniques and probes during the piloting of the interview protocol with elementary school children (see below). The same observers collected both classroom observation and student interview data.

Teacher surveys. The Teacher Survey was adapted from two existing measures. The first was developed by WestEd for a previous evaluation of *Tribes* and includes questions to teachers that are specific to the kinds of environmental supports and school culture promoted by the program (Davis, Hanson, and Chesswas, 2004). To ensure that we had a reliable and independent measure of fidelity, we also used questions from the Consortium of Chicago Public Schools Research surveys. As shown in Table 3.6, items on the teacher survey were used to assess the following outcomes: (1) positive student behavior, (2) student-centered teaching practices, (3) use of student reflection practices, (4) student supportive learning practices, (4) cooperative learning groups, and (5) small group activities. Sample specific alphas are reported in Table 3.5 and appendix H. A copy of the survey is provided in appendix A.

Achenbach Behavioral Checklists (ABCL). Teacher assessment of student behavior is a commonly used measure in studies of school-based violence prevention programs (e.g., Mytton, et al., 2002). We selected the *Achenbach Behavior Checklist* (teacher form) because it is a relatively simple instrument for teachers to use that includes a number of relevant scales of student behavior, and takes only 15 minutes to complete. The ABCL asks teachers to rate the individual student's social competencies, interactions, internal states, and classroom behavior (including during group activities). The ABCL measures six constructs (Aggression, Hyperactivity, Bullying, Conduct problems, Defiance, Violence), and assesses students on several behavior syndromes. We used the ABCL to assess aggressive behavior, rule-breaking behavior, social problems, and attention problems. Scores on each construct were coded such that higher values reflect higher values on the name measure. For example, higher scores on the aggressive behavior construct correspond to higher levels of teacher-reported aggressive behavior. Sample-specific alphas ranged from 0.80 to 0.95 (see appendix H).

In addition, so that an additional measure that was not teacher-dependent and potentially confounded by an experimentally induced change in the environment in which student behavior was observed – the ABCL was administered to parents in the spring of the implementation and follow-up year. The ABCL parent-form assesses the same constructs as the ABCL teacher-form, and had sample-specific alphas ranging from 0.85 to 0.90 (see appendix H)

Behavioral and Emotional Rating Scale (BERS-2) The *Behavioral and Emotional Rating Scale (BERS-2)* was used to assess positive student behaviors that might result from the implementation of *Tribes* and changes in classroom environments. The *BERS-2* asks teachers to rate individual student's strengths and competencies in five domains: interpersonal strength (alphas = 0.96-0.97), intrapersonal strength (alphas = 0.92 to 0.93), school functioning (alpha =

0.92), and affective strength ($\alpha = 0.89$). It takes about 10 minutes to complete. The *BERS-2* was also administered to parents.

Archival data. Archival measures routinely collected by schools were also collected for all students in participating classrooms at three measurement points. In addition to demographic data, these included the number of suspensions, attendance, and student achievement test scores for grades 1-4. English language arts and mathematics test scores were collected for the years before and during program implementation for all students, and for students in Study B (Phase II). These data were collected with data extracts from the district or school's information systems. Although we collected suspension data, suspensions were too rare among 1st – 4th grade students in the sample to be useful for evaluating program impacts. Only 13 suspensions (8 in intervention classrooms and 5 in control classrooms) occurred in participating classrooms during the implementation year. The schedule for collecting archival data is shown in Table 3.7.

California administers the California Standards Tests (CST)—an assessment that is criterion-referenced to state standards—to students in grades 2–4. As with other state tests, all questions on the CST are evaluated by committees of content experts, including teachers and administrators, to ensure their appropriateness for measuring the California academic content standards. In addition to content review, all items are reviewed and approved to ensure their adherence to the principles of fairness and to ensure that no bias exists with regard to characteristics such as gender, ethnicity, and language. As seen in Table 3.5, reported reliability figures for the English language arts and mathematics CSTs range from 0.93 to 0.94 (California Department of Education 2010b).

The CSTs are not vertically scaled and thus do not have the same meaning across different grade levels. To convert the scores to an identical metric so that test score data from all of the grades can be analyzed together, test score data were normalized within each grade by subtracting the state mean from each student's score and dividing by the state standard deviation. Normalized in this way, the test score data represent the relative ranking of students in the analytic sample rather than the absolute level of performance, and the impact estimates (see below) reflect the impacts relative to the distribution of scores in the state.

Evaluator classroom observation. Derived from other classroom observation instruments successfully used in previous *Tribes* research, these 30-minute *Evaluator Observations* included ratings of: (1) classroom environments (e.g., types of group work, room arrangements, evidence of behavior and classroom rules posted); (2) opportunities to learn and practice specific whole classroom or group behaviors promoted by *Tribes*; and (3) student demonstration of behaviors

and responses related to *Tribes* (e.g., expressing appreciations, sharing ideas and materials). The observation protocol also included a brief 10-minute post-observation interview with the teacher, administered within 24 hours of the observation. A copy of the classroom observation protocol is in appendix D.

The purpose of the post-observation interview was to obtain a better idea of how typical the observed practices and behaviors were and the extent to which teachers were attempting to implement teacher practices that reflected the kinds of teaching and learning promoted by *Tribes*, including group work and development (e.g., collaborative skills), reflection, and caring classroom cultures with positive expectations, and multiple opportunities for participation and contribution. Because evaluators completed this measure, it also served to validate teachers' self-reports of their own practices in the Teacher Survey.

Observations were carried out in both treatment and control classrooms across all grades (128 classrooms). Observers conducted the observation "blind"; i.e. observers were not told whether the classroom they were observing was an intervention classroom, and participating teachers were asked not to inform observers of their status. For the most part, each participating teacher was observed twice during Phase I, the year the intervention was implemented. In a few cases, teachers were not observed on the first round due to scheduling conflicts. There were also a few teachers that were not observed during the second round; this was generally due to last minute changes in lesson plans and end of the year activities.

As shown in Table 3.5, the classroom observation was used to assess whether evidence indicated that the teacher provided (1) opportunities for students to work in small groups, (2) opportunities for collaboration, (3) opportunities for students to reflect on what they have learned; that the students were (4) engaged with the teacher and their classmates, (5) respected their classmates, and (6) shared materials and helped their classmates. The first three measures – small groups, collaboration, and student reflection – were measured with dichotomous indicators. The classroom was coded as providing opportunities if either rating demonstrated the applicable characteristic. Student engagement, respect, and sharing were measured with multiple Likert items (see Table 3.6 and appendix H for alphas).

Student interviews. Evaluators conducted individual clinical style interviews with a randomly selected subset of a maximum three students from each classroom in Study B at two time points during Phase I (total of 134 students in grades 3-4). These 30-minute Student Interviews provided an opportunity to assess student judgments about pro-social concepts, skills taught in *Tribes*, and antisocial attitudes and behaviors.

Four carefully crafted vignettes (or stories) about incidents of disruptive and antisocial behavior that students typically encounter in classrooms and schools were developed (see appendix E). Each vignette asked students about the benefits and harm of the behaviors described in the story, the reasons they may occur, and what they think should be done about preventing and/or intervening in these incidents. These interviews also included probing questions about antisocial attitudes and behaviors including such behaviors as victimization and bullying, and what students have learned from *Tribes*.

Although not commonly used to collect data in violence prevention programs, this methodology for studying reasoning about harmful behaviors was first developed by Jean Piaget and comprised his primary methodology in the development of theories of children's constructions of logical and social reasoning (Piaget, 1952, 1965). Piaget's methodology was later revised by Jurgen Habermas (1990), Lawrence Kohlberg (1969), and Elliot Turiel (1983, 1999, 2002), and many others, as they examined children's and adults' reasoning about moral/pro-social development. Piaget's methodology has been used widely because it allows for a unique examination of the relationship between students' judgments about social behavior and the actual behavior itself (Eisenberg, 1989; Strayer, 1987, Wainryb et al, 2005). An innovative measure, these child interviews provided data that can be compared to the more commonly-used teacher reports of student behavior (e.g., *ABCL*).

For each interview, students were asked to resolve the incident described in two of the four vignettes. For each class of three students, we randomly selected pairs of vignettes to ensure there was variation in both the order and type of story students asked. For the second round of interviews, students were asked to resolve the remaining two vignettes. Schools were asked to provide a reasonably quiet place for the student interviews to take place. Each 30-40 minute student interview (consisting of two vignettes) was tape recorded and subsequently transcribed.

These vignettes were piloted with nine 8-11 year old children from Berkeley, Albany, and Oakland, CA. Each of six research staff used the instrument with five of these children. Each interview was observed by a subset of three to four research staff; following each interview, the staff debriefed the proceedings. In addition to piloting the instrument, this was done to ensure reliability in the administration of subsequent student interviews by the research staff.

Once the actual interviews were conducted, tapes were transcribed, and all identifying information (school, principal and teacher names as well as full names, gender and grade of students) were removed from each interview. A coding scheme was developed, and three researchers began the process of reaching the goal of 85% inter-rater reliability. They jointly coded

ten interview vignettes, discussing their justifications and rationale for each. They then coded 16 vignettes independently, reaching an inter-rater reliability level of 92%. The two researchers who coded the complete set of student interviews for data analysis then continued to individually code another 28 vignettes, reaching an inter-rater reliability level of 87%.

The evaluation relies on 13 measures coded from the transcribed interviews: (1) student acceptance of aggressive conflict resolution strategies, (2) strategies suggested by the student to prevent and/or intervene in conflict incidents (practical outcome, aggression, appeal to authority figures, open communication, compromise, reliance on impartial arbitration), (3) and expected conflict resolution strategies that the student would use (aggression, appeal to authority figures, open communication, compromise, reliance on impartial arbitration). Because the order of vignettes was randomly determined, composite scores were constructed by averaging the ratings across stories and interviews.

Implementation Data Collection

Attendance logs. Teacher attendance data collected at the trainings were used to describe the number of teachers who participated in the professional development institute as well as in follow-up trainings.

Teacher Surveys. As mentioned earlier, the Teacher Surveys were also used to capture data on implementation. To assess classroom exposure to violence prevention efforts, items regarding prior or current teacher implementation of *Tribes* and other school-wide violence prevention programs (e.g., Second Step, Caring School Communities, Too Good for Violence) in their classrooms, and adherence to school and district wide discipline policies were included on the teacher survey. Items asking about implementation of activities tightly aligned with the *Tribes* program were included on the survey, the use of community agreements, community circles, appreciations, and small group activities.

Baseline Data Collection and Measures

Specific pre-intervention covariates were selected based on study design considerations and judgments about the extent to which they were expected to explain variance in outcome variables. The following pre-intervention covariates were included in the models examining outcomes.

Pretest measures of outcomes. If available, pretest measures of each outcome variable were used to assess baseline equivalence and as covariates in the relevant impact analyses. Moreover, because parent surveys were not administered prior to random assignment of teachers, parent-

reported pre-intervention ABCL/BERS-2 measures were not available. Therefore, only teacher-reported ABCL/BERS-2 pretest measures, teacher survey pretest measures, and baseline test scores were used as covariates in impact analysis models.

Demographic variables. We obtained student demographic information from district archival records. Variables obtained include student grade in school, gender, race/ethnicity (African American, Chinese, Filipino, Latino, White, other), English language learner status, and free/reduced-price lunch eligibility status. Teacher demographic information was obtained from the teacher surveys administered to teachers each spring.

Teacher surveys. As previously described, intervention and control group teachers were surveyed prior to random assignment, during the spring prior to program implementation. In addition to using pretest measures of each teacher outcome measure to assess baseline equivalence and as a covariate in the applicable impact analysis model, pretest measures of teachers' years of teaching experience and grade taught were also used for these purposes. Teacher pre-intervention reports of exposure to the *Tribes* program were also used to assess baseline equivalence and as a sample exclusionary criterion in sensitivity analyses.

Design variables. Because teachers were randomized to conditions within school and grade, dichotomous variables for all but one school were included as covariates in the impact analysis models. The inclusion of school ensures that the impact analysis model conforms to the strategy used in random assignment by adjusting the degrees for freedom to reflect the number of randomizations performed. Its inclusion also potentially explains variance in the outcome variables, thereby increasing precision of estimated impacts. Because randomization strata (schools) are nested within each cohort, a dichotomous indicator for cohort membership was not included in the impact analysis models.

Sample Characteristics

Schools

Table 3.7 presents the characteristics of schools that participated in the study. Of the 13 participating schools, 7 were in San Francisco Unified School District and 6 were elsewhere in the San Francisco Bay area. The schools serve a diverse student population in terms of racial/ethnic composition, with African American, Asian, Hispanic, and white students fairly evenly distributed in the sample. Approximately 54% of the students served by schools were eligible for free or reduced-priced meals, which is close to the state average of 55% (CDE, 2010); 32% were classified

as English language learners, and enrollment averaged slightly more than 300 students. Overall, participating schools served higher average proportions of English language learners than the state as a whole (24%), and have smaller enrollments (525).

Table 3.7. School-level baseline characteristics of study schools

	Baseline means		
	Overall	Cohort 1	Cohort 2
African American (%)	17.15	21.71	11.83
Asian (%)	17.15	25.86	21.00
Hispanic (%)	23.92	19.29	29.33
Non-Hispanic White (%)	17.15	11.71	23.50
Free/reduced-price meals (%)	54.00	59.28	47.83
English language learners (%)	31.54	32.43	30.50
Parental education ^B	2.87	2.78	2.97
Enrollment	311.23	237.71	397.00
Number of schools	13	7	6

Source: Academic Performance Index data files, 2007 base & 2008 growth, California Department of Education. Retrieved August 3, 2010 from <http://www.cde.ca.gov/ta/ac/ap/apidatafiles.asp>.

Notes:

^A Parental education represents the average educational level of the parents of students in the school. At the student level, it is an ordinal variable ranging from 1 to 5 (1 = less than high school, 2 = high school graduate, 3 = some college, 4 = college graduate, 5 = graduate school).

Table 3.8. Teacher baseline demographic characteristics and measures by experimental group

	Overall	Intervention group	Control group	Difference	Effect Size ^A	<i>p</i> -value ^B
Randomized Sample						
Grade taught (%)						
1 st	27.71	26.19	29.27	-3.08	---	0.43
2 nd	28.31	32.14	24.39	7.75	---	
3 rd	24.70	20.24	29.27	-9.03	---	
4 th	19.28	21.43	17.07	4.36	---	
Years of teaching experience	13.03	11.86	14.22	-2.36	-0.24	0.11
Teacher Collaboration	3.37	3.41	3.33	0.08	0.10	0.55
Positive Student Behavior	2.93	2.90	2.97	-0.04	-0.17	0.29
Teacher Efficacy	4.18	4.32	4.25	-0.18	-0.23	0.17
Student Centered Teaching Practices	3.93	3.84	4.03	-0.19**	-0.39	0.02
Use of Student Reflection Practices	3.44	3.33	3.54	-0.22**	-0.35	0.04
Student Supportive Learning Practices	3.40	3.39	3.41	-0.02	-0.04	0.80
Cooperative Learning Groups	3.56	3.51	3.60	-0.09	-0.13	0.40
Small Group Activities	3.96	3.90	4.01	-0.10	-0.16	0.33
Teachers	166	84	82			
Retained Sample						
Grade taught (%)						
1 st	27.89	26.67	29.17	-2.50	---	0.27
2 nd	27.89	33.33	22.22	11.11	---	
3 rd	25.85	20.00	31.94	-11.94	---	
4 th	18.37	20.00	16.67	3.33	---	
Years of teaching experience	13.89	12.99	14.81	-1.83	-0.20	0.25
Teacher Collaboration	3.40	3.43	3.36	0.07	0.08	0.64
Positive Student Behavior	2.95	2.91	2.99	-0.08	-0.18	0.28
Teacher Efficacy	4.28	4.22	4.34	-0.12	-0.21	0.23
Student Centered Teaching Practices	3.93	3.84	4.02	-0.18**	-0.38	0.03
Use of Student Reflection Practices	3.44	3.35	3.53	-0.18	-0.30	0.11
Student Supportive Learning Practices	3.41	3.41	3.40	0.01	0.01	0.97
Cooperative Learning Groups	3.55	3.51	3.58	-0.08	-0.11	0.51
Small Group Activities	3.98	3.93	4.02	-0.08	-0.12	0.46
Teachers	147	75	72			

Notes:

^A Effect size calculated by dividing difference by the standard deviation of the control group.

^B For grade taught, Fisher's exact tests were calculated to compute *p*-values (two-sided). Independent samples t-tests were used to compute *p*-values for other variables.

Source: Baseline teacher survey and teacher rosters.

Teachers

As aforementioned, the study targeted grade 1-4 teachers in elementary schools. Overall, approximately 80% of grade-eligible teachers in study schools agreed to participate in the study and were randomly assigned to experimental condition. Tables 2.8 and 2.9 present characteristics of teachers who participated in the study, by experimental condition. The teacher sample

comprises proportionately fewer grade 4 teachers than grades 1-3 teachers, perhaps because class enrollment sizes are typically smaller in grades 1-3 than in grade 4 in California. Teachers participating in the study had an average of 13 years of total teaching experience. Most of the differences across intervention and control teachers in baseline measures presented in Table 3.8 and 2.9 were not statistically significant. However, intervention group teachers reported lower levels of student centered teacher practices and use of student reflection practices at baseline than their counterparts in the control group. For the grade 1-4 randomized and retained sample, baseline intervention/control group differences on these measures ranged from 0.30-0.39 standard deviations. Intervention/control group differences were less pronounced (and not statistically significant) for grade 1-2 teachers than grade 3-4 teachers (see Table 3.9). Moreover, for the grade 3-4 sample, control group teachers averaged more years of teaching experience than intervention group teachers (17 vs. 12 years). Because post-random assignment attrition was so low, we suspect that such intervention/control group differences are due to chance factors. However, because such pre-existing differences could bias estimation of potential program impacts, years of teaching experience, student centered teaching practices, and use of student reflection practices were controlled for in all impact analysis models.

Students

Table 3.10 presents demographic characteristics of student study participants by intervention group status. As was the case with teachers (Table 3.8), proportionately fewer participating students were in grade 4 classrooms than in grade 1-3 classrooms. Approximately 22% of students were of Hispanic origin, 20% were non-Hispanic white, 14% were African American, 12% were Chinese, 11% were Filipino, and 23% were classified as other (which included those with missing race/ethnicity data). Sixty percent of students were eligible for free/reduced-price meals and 38% were classified as English language learners – both estimates were slightly higher than those reflected in the school-level results in Table 3.4. The intervention and control groups did not differ by school grade, gender, race/ethnicity, free/reduced-price meal status, or English learner status.

Table 3.11 shows means of baseline student outcome measures for the overall retained sample, students in grades 1-2, and students in grades 3-4. For each sample, baseline differences between students in intervention and control classrooms are small and not statistically significant. Intervention/control group differences range from a low -0.10 standard deviations to a high of

0.08 standard deviations. These results suggest that the student samples were equivalent at baseline.

Tables 2.12 and 2.13 show demographic characteristics and means of baseline student outcome measures for the interview and follow-up sample. For both samples, differences between students in intervention and control classrooms were not statistically significant. The lack of significant differences for the interview sample is noteworthy given that higher proportions of the sampled students in intervention classrooms participated in interviews than was the case in control classrooms (see Table 3.3). Overall – the results in Tables 2.11, 2.12, and 2.13 suggest that students in intervention and control classrooms exhibited similar levels on all of the baseline outcome measures.

Table 3.9. Teacher baseline measures by experimental group and grade level – retained sample

	Overall	Intervention group	Control group	Difference	Effect Size ^A	p-value ^B
Retained Sample (Grades 1-2)						
Years of teaching experience	13.57	13.99	13.07	0.92	0.09	0.65
Teacher Collaboration	3.30	3.31	3.29	0.03	0.03	0.90
Positive Student Behavior	2.91	2.87	2.94	-0.08	-0.16	0.47
Teacher Efficacy	4.26	4.23	4.30	-0.07	-0.12	0.63
Student Centered Teaching Practices	3.85	3.81	3.91	-0.10	-0.22	0.34
Use of Student Reflection Practices	3.37	3.32	3.42	-0.11	-0.18	0.51
Student Supportive Learning Practices	3.42	3.47	3.35	0.12	0.25	0.35
Cooperative Learning Groups	3.47	3.49	3.44	0.05	0.07	0.78
Small Group Activities	3.92	3.92	3.93	-0.01	-0.01	0.97
Teachers	82	45	37			
Retained Sample (Grades 3-4)						
Years of teaching experience	14.28	11.52	16.66	-5.14**	-0.48	0.04
Teacher Collaboration	3.51	3.60	3.44	0.16	0.18	0.47
Positive Student Behavior	3.01	2.97	3.03	-0.06	-0.16	0.51
Teacher Efficacy	4.31	4.21	4.39	-0.17	-0.34	0.19
Student Centered Teaching Practices	4.01	3.89	4.12	-0.24*	-0.53	0.05
Use of Student Reflection Practices	3.52	3.39	3.64	-0.24	-0.39	0.13
Student Supportive Learning Practices	3.39	3.32	3.46	-0.14	-0.25	0.28
Cooperative Learning Groups	3.64	3.53	3.73	-0.19	-0.31	0.21
Small Group Activities	4.04	3.96	4.11	-0.16	-0.22	0.33
Teachers	65	30	35			

Notes:

^A Effect size calculated by dividing difference by the standard deviation of the control group.

^B Independent samples t-tests were used to compute p-values.

Source: Baseline teacher survey and teacher rosters.

Table 3.10. Student demographic characteristics by experimental group – Year 1 sample

	Baseline percentages			Difference	<i>p</i> -value ^A
	Overall %	Intervention group %	Control group %		
Total Sample					
School grade					
1	25.77	25.07	26.47	-1.40	0.58
2	25.68	28.20	23.19	5.01	
3	26.76	22.37	31.12	-8.75	
4	21.78	24.37	19.22	5.15	
Gender					
Female	48.36	52.06	51.22	0.84	0.69
Male	51.64	47.94	48.78	-0.84	
Race/ethnicity					
African American	13.51	14.97	12.07	2.90	0.82
Chinese	12.17	10.53	13.79	-3.26	
Filipino	10.74	9.75	11.72	-1.97	
Latino	22.48	21.93	23.02	-1.09	
White	19.97	18.36	17.59	0.77	
Other	23.13	24.46	21.81	2.65	
Percent free/reduced-price meals	59.61	59.43	59.79	-0.36	0.81
English language learner	37.66	34.80	40.40	-5.60	0.19
Students	2,309	1,149	1,160		

Notes:

^A For all characteristics except school grade and student race/ethnicity, a two-tailed test that adjusted for intraclass correlations was used to test differences in baseline characteristics across intervention and control classrooms. To test for intervention/control group differences in school grade and racial/ethnic composition, teacher-level proportions for categories were calculated.

Intervention/control teacher differences in composition were then estimated using a multivariate regression model.

Source: Student roster data and district archival records.

Table 3.11. Student baseline measures by experimental group and grade level – Year 1 sample

	Overall	Intervention group	Control Group	Difference	Effect Size ^A	<i>p</i> -value ^B
Retained Sample (Grades 1-4)						
Interpersonal Strength	2.21	2.19	2.22	-0.02	-0.04	0.52
Intrapersonal Strength	2.24	2.22	2.26	-0.03	-0.06	0.51
School Functioning	2.21	2.17	2.24	-0.06	-0.09	0.25
Affective Strength	2.24	2.24	2.24	-0.01	-0.01	0.91
Aggressive Behavior	0.16	0.16	0.16	0.00	0.01	0.65
Rule-Breaking Behavior	0.16	0.17	0.16	0.00	0.01	0.47
Social Problems	0.14	0.14	0.15	-0.01	-0.02	0.80
Attention Problems	0.33	0.33	0.32	0.01	0.03	0.71
English Language Arts test scores	0.13	0.14	0.12	0.02	0.02	0.56
Mathematics test scores	0.14	0.11	0.17	-0.06	-0.06	0.75
Students	1,815	896	919			
Retained Sample (Grades 1-2)						
Interpersonal Strength	2.22	2.19	2.24	-0.04	-0.07	0.53
Intrapersonal Strength	2.26	2.24	2.27	-0.02	-0.04	0.82
School Functioning	2.26	2.23	2.29	-0.06	-0.10	0.39
Affective Strength	2.26	2.27	2.26	0.01	0.02	0.75
Aggressive Behavior	0.16	0.17	0.16	0.01	0.03	0.60
Rule-Breaking Behavior	0.18	0.17	0.18	-0.01	-0.05	0.96
Social Problems	0.15	0.15	0.16	-0.01	-0.04	0.95
Attention Problems	0.32	0.32	0.31	0.01	0.03	0.75
Students	916	458	458			
Retained Sample (Grades 3-4)						
Interpersonal Strength	2.20	2.20	2.20	0.00	-0.01	0.66
Intrapersonal Strength	2.22	2.20	2.24	-0.04	-0.08	0.33
School Functioning	2.15	2.12	2.18	-0.07	-0.10	0.30
Affective Strength	2.21	2.20	2.23	-0.03	-0.05	0.48
Aggressive Behavior	0.15	0.15	0.15	0.00	-0.01	0.90
Rule-Breaking Behavior	0.15	0.16	0.14	0.02	0.08	0.26
Social Problems	0.13	0.14	0.13	0.00	0.02	0.62
Attention Problems	0.34	0.35	0.34	0.01	0.03	0.69
English Language Arts test scores	0.13	0.14	0.12	0.02	0.02	0.56
Mathematics test scores	0.14	0.11	0.17	-0.06	-0.06	0.75
Students	899	438	461			

Notes:

^A Effect size calculated by dividing difference by the standard deviation of the control group.

^B A two-tailed test that adjusted for intraclass correlations was used to test differences in baseline characteristics across intervention and control classrooms.

Source: Student roster data and teacher checklist data.

Table 3.12. Student baseline measures by experimental group and grade level – interview sample

	Overall	Intervention group	Control group	Difference	Effect Size ^A	<i>p</i> -value ^B
Interview Sample						
School grade (%)						
3	52.70	52.78	67.74	-14.96	----	0.24
4	40.30	47.22	32.26	14.96	----	
Gender (%)						
Female	47.01	48.61	45.16	3.45	----	0.69
Male	52.99	51.39	54.84	-3.45	----	
Race/ethnicity (%)						
African American	15.67	16.67	14.52	2.15	----	0.95
Chinese	10.45	8.33	12.90	-4.57	----	
Filipino	14.18	16.67	11.29	5.38	----	
Latino	13.43	13.89	12.90	0.99	----	
White	23.13	22.22	24.19	-1.97	----	
Other	23.13	22.22	24.19	-1.97	----	
Percent free/reduced-price meals (%)	61.67	68.75	53.57	15.18	----	0.23
English language learner (%)	30.58	30.77	30.36	0.41	----	0.91
Baseline Measures						
Interpersonal Strength	2.21	2.22	2.21	0.01	0.02	0.92
Intrapersonal Strength	2.25	2.21	2.31	-0.10	-0.24	0.39
School Functioning	2.16	2.09	2.25	-0.15	-0.26	0.25
Affective Strength	2.25	2.22	2.30	-0.08	-0.16	0.54
Aggressive Behavior	0.15	0.11	0.21	-0.09	-0.26	0.12
Rule-Breaking Behavior	0.17	0.17	0.17	-0.01	-0.02	0.91
Social Problems	0.14	0.14	0.14	0.00	0.00	0.99
Attention Problems	0.38	0.37	0.39	-0.03	-0.06	0.77
English Language Arts test scores	0.23	0.25	0.20	0.06	0.06	0.74
Mathematics test scores	0.17	0.10	0.24	-0.14	-0.15	0.55
Students	134	72	62			

Notes:

^A Effect size calculated by dividing difference by the standard deviation of the control group.

^B A two-tailed test that adjusted for intraclass correlations was used to test differences in baseline characteristics across intervention and control classrooms.

Source: Student roster data, student archival data, and teacher checklist data.

Table 3.12. Student baseline measures by experimental group and grade level – follow-up sample

	Overall	Intervention group	Control group	Difference	Effect Size ^A	<i>p</i> -value ^B
Follow-up Sample						
School grade (%)						
4	39.94	33.44	45.93	-12.49	----	0.34
5	60.06	66.56	54.07	12.49	----	
Gender (%)						
Female	48.26	47.95	48.55	-0.60	----	0.88
Male	51.74	52.05	51.45	0.60	----	
Race/ethnicity (%)						
African American	7.72	8.83	6.69	2.14	----	0.86
Chinese	13.01	11.99	13.95	-1.96	----	
Filipino	16.04	17.35	14.82	2.53	----	
Latino	18.91	22.40	15.70	6.70	----	
White	20.42	17.35	23.26	-5.91	----	
Other	23.90	22.08	25.58	-3.50	----	
Percent free/reduced-price meals (%)	55.21	59.79	50.84	8.95	----	0.51
English language learner (%)	42.37	44.30	40.57	3.73	----	0.98
Baseline Measures						
Interpersonal Strength	2.23	2.23	2.23	0.00	0.00	0.82
Intrapersonal Strength	2.26	2.26	2.26	-0.01	-0.01	0.82
School Functioning	2.22	2.20	2.25	-0.04	-0.08	0.69
Affective Strength	2.24	2.22	2.26	-0.04	-0.07	0.73
Aggressive Behavior	0.15	0.14	0.16	-0.02	-0.09	0.40
Rule-Breaking Behavior	0.16	0.17	0.15	0.01	0.06	0.66
Social Problems	0.14	0.13	0.14	-0.01	-0.04	0.73
Attention Problems	0.33	0.33	0.33	0.00	-0.01	0.84
English Language Arts test scores	0.23	0.26	0.21	0.05	0.05	0.52
Mathematics test scores	0.25	0.22	0.28	0.06	0.07	0.92
Students	661	317	344			

Notes:

^A Effect size calculated by dividing difference by the standard deviation of the control group.

^B A two-tailed test that adjusted for intraclass correlations was used to test differences in baseline characteristics across intervention and control classrooms.

Source: Student roster data, student archival data, and teacher checklist data.

Data Analysis Methods

Impact Analyses

Impacts of the *Tribes* program were estimated by comparing post-intervention outcomes for students and classrooms in the intervention group to the outcomes for their counterparts in the control group. The primary hypothesis-testing analyses for student outcomes involved fitting

conditional multilevel regression models (i.e., hierarchical linear modeling [HLM]), with additional terms to account for the nesting of individuals within higher units of aggregation (e.g., see Goldstein 1987; Raudenbush and Bryk, 2002; Murray 1998). The study involved teacher-level random assignment and delivery of training courses to teachers assigned to the intervention-group, who in turn had the opportunity to incorporate *Tribes* aligned-practices into their classroom instruction during the academic year. The design thus involves clustering at the classroom level, as students are nested within teachers (i.e., elementary school classrooms). The random effects of classroom were included in the models to account for the nesting of observations within classes. Fixed effects include treatment group, baseline (pretest) measures of outcome variables, school, and other individual and teacher-level covariates. The purpose of including statistical controls is to minimize random error and to increase the precision of the estimates.

The following type of two-level HLM for a continuous outcome was estimated for student measures:

$$Aggress_{ijk} = \alpha_0 + \beta_1 Tx_{jk} + \sum_{i=1}^p \gamma_{ijk} + \sum_{j=1}^q \mu_{jk} + \sum_{i=1}^p \nu_{ji} + \epsilon_{ijk} \quad [1]$$

where subscripts i, j , and k denote student, teacher, and school, respectively; *Aggress* represents the student outcome variable; Tx is a dichotomous variable indicating student enrollment in the classroom assigned to the treatment condition; I represents a vector of student-level control variables measured prior to random assignment (including a baseline measure of the outcome variable or measure closely related to the outcome variable); T is a set of teacher-level control variables; μ_k and ν_{jk} are fixed- and random effects for school and teacher, respectively; and ϵ_{ijk} is an error term for individual sample members (students). In this model, the intervention effect is represented by β_1 , which captures adjusted intervention-group/control-group differences in the outcome variable. Note that the model is appropriate for evaluating both the short-term and sustained impacts of student exposure to *Tribes*, although for the latter case, students are nested in the *combination of teachers (j)* they were exposed to over two academic years.

Specific pre-intervention covariates were selected based on study design considerations and judgments about the extent to which they would explain variance in the outcome variables. The following pre-intervention covariates were included in the models examining student outcomes:

Student-level

- Pretest measure of each outcome variable (when available)
- Pretest measure of closely related outcome variable (when available)
- Grade in school
- Gender
- Race/ethnicity (African American, Chinese, Filipino, Hispanic, non-Hispanic White, and Other)
- Eligibility for free or reduced-price meals
- English language learner status

Teacher-level

- Years of teaching experience
- Pretest measure of student centered teaching practices
- Pretest measure of use of student reflection practices in class

School-level

- Dichotomous variables for each school (one dichotomous variable omitted)

As mentioned earlier, parent-reported ABCL/BERS-2 checklists and student interviews were not conducted prior to the intervention. Pretests for these outcomes were thus not included in the impact analysis models. Instead, pretest measures based on the teacher-reported ABCL/BERS-2 checklists and student test score data were included in the models.

To examine the potential impacts on teacher- and classroom-level measures, single-level regression models analogous to model [1] were estimated. For example, for teacher reports of the use of cooperative learning groups in instruction, the following model was estimated:

$$CoopLearn_{jk} = \alpha_0 + \beta_1 \bar{x}_{jk} + \sum T_{jk} + \sum S_{jk} + \epsilon_{jk} + \nu_{jk} \quad [2]$$

where the subscripts and variables are defined the same way as they are for model [1], except that *CoopLearn* represents the teacher outcome variable and *T* represents a vector of teacher-level control variables measured prior to random assignment (including pre-intervention measures of the outcome variable). Models for teacher- and classroom-level outcomes included the following covariates:

Teacher-level

- Pretest measure of each outcome variable (when available)
- Pretest measure of closely related outcome variable (when available)
- Years of teaching experience
- Pretest measure of student centered teaching practices
- Pretest measure of use of student reflection practices in class
- Grade taught

School-level

- Dichotomous variables for each school (one dichotomous variable omitted)

Because classroom observations were not conducted prior to random assignment, impact analyses models of these outcomes did not include classroom observation-based pretest measures. Teacher survey-based pretest measures were included as covariates when estimating potential impacts on classroom observation-based measures.

Variations in Effectiveness

Simple extensions to model [1] allowed us to examine differential effectiveness across subgroups by including interactions between treatment status and one of the variables in I, T, or S. Model [2], for example, shows how we estimated separate program effects for boys and girls:

$$Aggress_{ijk} = \alpha_0 + \beta_1 Tx_{jk} Boy_{ijk} + \beta_2 Tx_{jk} Girl_{ijk} + \sum_i \gamma_{ijk} + \sum_j \delta_{jk} + \epsilon + \eta_i + \zeta_{jk} \quad [3]$$

The only difference between this model and [1] is that the term $\beta_1 Tx_{jk}$ is replaced by two terms that interact program variable Tx_{jk} with dichotomous variables boys and girls. Program impacts on boys and girls are captured by the coefficients β_{1B} and β_{1G} , respectively. By statistically testing the hypothesis $\beta_{1B} = \beta_{1G}$, we establish whether program impacts are statistically different for boys and girls. Similar subgroup analyses were possible across teacher and classroom-level variables. However, we caution that the statistical power of such higher-level subgroup analysis is very limited.

Sample Size/Statistical Power

To determine the appropriate sample size required for the study design, we calculated *minimum detectible effect sizes* (MDES) based on the unit of randomization, the sources of clustering, the availability of baseline explanatory variables, and other design characteristics using the procedures described by Donner and Klar (2000), Murray (1998), Raudenbush (1997), and Schochet (2005). MDES estimates represent the smallest *true* program impacts in standard deviation units that can be detected with high probability (Bloom, 1995). As defined in our design work, the MDES is the smallest effect size that has at least an 80% probability of being found statistically significant with 95% confidence. For a design to be sufficiently powerful, this MDES must sufficiently small to ensure that a program impact that is large enough to be policy-relevant does not go undetected. As discussed above, 93 1st/2nd grade teachers (Study A) and 73 3rd/4th

grade teachers (Study B) were randomly assigned to one intervention or one wait-listed control condition (approximately 46 and 36 teachers per condition, respectively). We randomly sampled approximately ten students within each study classroom to be assessed with teacher and parent-reported measures. Student interview data were collected from three of the ten randomly sampled students. For the purposes of the power analyses, we assumed a Type I error rate of .05, and an intraclass correlation (ICC) of .05 for student-level outcomes (see Murray & Hannan, 1990; Murray & Blitstein, 2003; Murray & Short, 1996; Scheier et al., 2002). Because teachers within schools were randomly assigned to experimental condition and fixed effects models are assumed, we did not account for the within-school clustering of teachers/classes in estimating statistical power for classroom- and teacher-level outcomes. We further assumed that the correlation between the pretest and posttest measure was 0.70.

Teacher- and Classroom-level Analyses. Pooling data from Study A and Study B for the teacher/classroom-level outcome analyses, we estimated the MDES to be 0.34 standard deviation units for these outcomes. Stratifying the analysis by study (1st and 2nd grade/3rd and 4th grade) yields an MDES of 0.48 – a substantial but still realistically attainable impact given the tight alignment between the teacher/classroom measures and the intervention, and given that larger impacts at the more proximal teacher/classroom level necessary to produce impacts at the more distal student level.

Student-level Analyses. With 35 classes per condition and ten and three students per class with ABCL/BERS-2 and interview data, respectively, we estimate MDESs of 0.21 and 0.31, respectively. Thus, adequate statistical power is available for detecting program effects on student outcomes.

Chapter IV: Implementation of *Tribes Learning Communities*

Intervention Description

Tribes Learning Communities (TLC) is a whole-classroom (often whole-school) strategy and on-going group process that uses teaching practices and class structures to develop an environment that promotes positive student behaviors and learning. Developed more than thirty years ago, *TLC* began as an approach to prevent substance use and other youth behavioral problems. This initial work led naturally to an incorporation of cooperative group learning into the model.

TLC requires teachers to facilitate the building of community or a “tribe” through three stages of group development:

- Inclusion – developing a sense of belonging through presenting one’s self to others, stating needs and expectations, and being acknowledged
- Influence – learning to feel “of influence” or value to the group, and valuing the differences that each member brings to a group, and
- Community – members working together creatively to share responsibility and leadership, recognize unique capacities, and reflect on and celebrate individual and community accomplishments.

Four agreements are taught and practiced in community circles (that meet at least twice weekly) and other classroom strategies to help develop the “tribe” or learning community: attentive listening, appreciations (no put downs), the right to pass (the right to *not* participate), and mutual respect. Through the group development process students learn to use 12 specific collaborative skills (listening attentively, expressing appreciation, reflecting on experience, valuing diversity of culture/ideas, thinking constructively, making responsible decisions, resolving conflicts, solving problems creatively, working together on tasks, assessing improvement, celebrating achievement and participating fully) so that they can work effectively together as pairs and triads initially, then later as sub-groups, and eventually, a tribe. Reflection is an integral part of community circles and other *Tribes* practices where learning to reflect on the interaction among group members (the social learning objectives) is as important as reflecting on personal and academic learning objectives.

The goal of this process is to establish not just a caring environment for cooperative learning, but a structure for positive interaction and continuity for working groups whether in the classroom, among staff, or in the school. (In other words, when a whole-school approach is used, teachers and administrators also work and learn as a tribe.) Instead of a set curriculum, there is an array of strategies available to teach and reinforce these collaborative skills across the three different stages of group development that are then integrated within the regular academic curriculum.

Training

The basic knowledge that teachers need to initiate and implement *Tribes Learning Communities* in their classrooms is taught and practiced within a 24-hour training spread across three or four consecutive days, in which teachers experience developing community among their colleagues. The basic course material is divided into eight modules, each approximately three hours long. Modules are taught in sequence because the information and learning experiences are cumulative and need to be experienced in order.

Once teachers have had time to implement *Tribes* in their classrooms, a coaching session(s) is recommended (though not required); in particular, teachers learn to better integrate *Tribes* practices into the academic content and normal classroom routines as opposed to these practices being “add-ons” to their work. The basic course objectives and modules, and the *Tribes* “Trail Map” that details the teacher-facilitator role and the development of small groups are in appendix G.

Training for the Intervention

For this study, CenterSource (the developer of *TLC*), provided certified, master trainers (i.e., trainers with substantial experience who are also able to provide trainer of training sessions) to familiarize intervention teachers with the approach and strategies. CenterSource also provided each treatment teacher with the *Tribes Learning Communities* book to be used during the training, and for teachers’ future reference and use during their implementation.

For each cohort, two three-day training sessions were offered that covered the eight modules. Trainers reviewed the major concepts and/or strategies of each module, following CenterSource’s training manual that details the objectives and sequence of activities for each model. Basic concepts and strategies were highlighted, modeled, practiced, and discussed

throughout the three days. During the training, teachers experienced working in pairs, triads, small groups, and as a “tribe”.

For each cohort, two separate 24-hour training institutes were conducted to accommodate district professional development and teacher schedules. One institute was scheduled in August, two in the second half of September, and one in mid-November. The mid-November professional development institute was conducted to enable teachers who had already made summer plans prior to announcement of the training or who had not yet been assigned to a school to participate in the training. (In several schools, stable enrollments, and therefore hiring and assignment of teachers, did not occur until late September/October.) Eleven of the 79 (14%) intervention group teachers participated in the mid-November institute, approximately 2.5 months into the academic year. Of the 79 teachers in the intervention group in the implementation year, 74 (94%) attended at least one of the four intervention trainings, and 69 (87%) completed all eight modules (i.e., attended all three days of training).

Table 3.1. Number of Teachers who Received *Tribes* Training

<i>Tribes</i> Training	Overall(n=79) ^A	Cohort 1(n=35) ^A	Cohort 2(n=44) ^A
Days attended training			
Did not attend	5	1	4
1 day	5 ^B	1	4 ^B
2 days	0	0	0
3 days	69	33	36
Remote training	7 ^B	0	7 ^B
Follow-up training	73	31	42

Notes:

^A Teachers assigned to the intervention group in study schools during the implementation year.

^B Three teachers who attended the onsite training for one day participated in the remote training.

Source: Professional development training attendance logs and teacher rosters.

Cohort 2 teachers unable to complete all eight modules were given the *Tribes* book and other training materials. The CenterSource trainer developed a list of “core” readings and activities to implement, and provided support to these teachers for the first month via e-mail, and occasionally, through phone calls. Of the eight Cohort 2 teachers who did not attend the full

complement of trainings, seven received this supplemental training (remote training). Overall, of the 79 intervention group teachers in the study, 78 received some exposure to the *Tribes* curriculum.

CenterSource also trained an additional person from each participating school (the principal or learning support staff/counselor assigned to coordinate the study) who could potentially be trained as a *Tribes* trainer to support the study and the expanded implementation of *TLC* at each school site once the study was completed.

Follow-Up Support

During Phase I of the study, when the intervention was being implemented, all treatment teachers (Cohorts 1 and 2) had the opportunity to receive follow-up support. The initial study design called for two half-day follow-up training sessions to support teacher implementation, ensure fidelity, and address any implementation challenges, especially with respect to integrating *Tribes* concepts and practices into academic instruction (a common implementation problem according to CenterSource).

Although initially designed as a group training to be held at each school, or ideally, a pair of schools, release-time and the availability of substitutes made this approach too difficult. Instead, a CenterSource trainer visited each participating school once on a designated day. For Cohort 1, this occurred during March-April 2008, and for Cohort 2 during November 2008. As shown in Table 3.1 above, 92% of treatment teachers participated in the follow-up support. Only two teachers declined follow-up support; the remainder were absent or on leave on the designated day.

During each school visit, the trainer primarily worked with treatment teachers on an individual basis; occasionally, however, training took place in pairs. This follow-up training included the trainer modeling lessons and activities, observing teacher classrooms, and providing suggestions and materials to support each teacher's implementation issues or challenges. A few common themes were identified regarding lack of time to implement (trouble integrating strategies into the curriculum and normal classroom routines) and ways to better teach and integrate initial skills (e.g. attentive listening, reflection on personal growth.)

Evidence of Exposure and Implementation at Baseline

As described in Chapter 2, the teacher survey included items asking teachers whether they had been trained to use *Tribes* or had used it in their classrooms. Table 3.2 shows teacher baseline reports of exposure to *Tribes* for the sample of teachers retained in Year 1 with baseline data. As

shown in the table, a non-trivial proportion of the sample reported prior use of the program in their classrooms. Twenty-one percent (21%) reported that they used *Tribes* in their classroom during the pre-intervention year, 32% reported using *Tribes* prior to the pre-intervention year, and 64% reported working with teachers who had been trained in *Tribes*. Moreover, 19% reported receiving *Tribes* training from colleagues and 7% (9 teachers) reported receiving *Tribes* training from CenterSource, the developer of the program. Participating teachers surely had a relatively high degree of familiarity with *Tribes*, but relatively few teachers reported being trained by the developer.⁵

Table 3.2. Pre-random assignment teacher exposure to Tribes Program

	Overall %	Intervention Group %	Control Group %	Difference	p-value ^A
Retained Sample with pretest data					
Used <i>Tribes</i> in pre-intervention year	21.17	18.84	23.53	-4.69	0.54
Used <i>Tribes</i> prior to pre-intervention year	32.12	30.43	33.82	-3.39	0.72
Worked with teachers with <i>Tribes</i> training	64.23	55.07	75.53	-20.46**	0.03
Rec'd <i>Tribes</i> training from colleagues	19.26	20.29	18.18	2.11	0.83
Rec'd <i>Tribes</i> training from CenterSource	6.57	4.35	8.82	-4.47	0.39
Teachers	137	69	68		
Retained Sample with pretest data – Grades 1-2					
Used <i>Tribes</i> in pre-intervention year	20.27	22.50	17.65	4.85	0.77
Used <i>Tribes</i> prior to pre-intervention year	33.78	40.00	26.47	13.53	0.32
Worked with teachers with <i>Tribes</i> training	66.22	55.00	79.41	-24.41**	0.05
Rec'd <i>Tribes</i> training from colleagues	16.44	20.00	12.12	7.88	0.32
Rec'd <i>Tribes</i> training from CenterSource	5.41	5.00	5.88	-0.88	0.81
Teachers	74	40	34		
Retained Sample with pretest data – Grades 3-4					
Used <i>Tribes</i> in pre-intervention year	22.22	13.79	29.41	-15.62	0.22
Used <i>Tribes</i> prior to pre-intervention year	30.16	17.24	41.18	-23.94*	0.05
Worked with teachers with <i>Tribes</i> training	61.90	55.17	67.65	-12.48	0.43
Rec'd <i>Tribes</i> training from colleagues	22.58	20.69	24.24	-3.55	0.77
Rec'd <i>Tribes</i> training from CenterSource	7.94	3.45	11.76	-8.31	0.28
Teachers	63	29	34		

Notes:

^A Fisher's exact tests were calculated to compute *p*-values (two-sided).

Source: Baseline teacher survey and teacher rosters.

⁵ As described elsewhere in the report, sensitivity tests were conducted to determine whether inclusion of teachers who reported implementing *Tribes* in the pre-intervention year affected the results. It did not.

Across 4 of the 5 measures of prior exposure to *Tribes*, baseline intervention/control group differences were not statistically significant. However, 76% of control group teachers and 55% of intervention group teachers reported working with teachers who had been trained to use *Tribes* – a statistically significant difference. This difference was also apparent in the grade 1-2 sample. For the grade 3-4 sample, teachers in the control group consistently reported higher rates of using *Tribes* and exposure to *Tribes* training than their counterparts in the intervention group – but, due to low statistical power, only differences in reported use of *Tribes* prior to the intervention year approached statistical significance. Over 41% of control group teachers reported using *Tribes* prior to the pre-intervention year, compared to 17% of treatment teachers.

To explore this further, we examined baseline reports of the use of *Tribes*-aligned activities. Prior to random assignment, between 15% and 30% of teachers reported implementing program-aligned activities at least weekly prior to random assignment (Table 3.3). Working in small groups (pairs, triads, and/or small groupings), community circles, and the use of *Tribes* community agreements were the most frequently reported activities; while the use of the *Tribes* group development process and student reflection on learning were the least frequently reported activities. Although control group teachers generally reported higher use of *Tribes*-aligned practices, intervention/control group differences were not statistically significant.

Tables 3.4 and 3.5 show baseline reports of *Tribes* activities for the grades 1-2 and 3-4 subsamples, respectively. The frequencies reported in Tables 3.4 and 3.5 are similar to those for the overall sample reported in Table 3.3, except grade 1-2 teachers in the intervention group generally reported higher levels of implementation than their counterparts in the control group, while the reverse was true for the grade 3-4 sample. For only one activity, however, did the group differences approach statistical significance (Table 3.5 – student reflection).

Table 3.3. Frequency of teacher implementation of Tribes activities prior to random assignment

	Overall %	Intervention Group %	Control Group %	Difference	p-value ^A
Retained Sample with pretest data					
Use of <i>Tribes</i> community agreements					
Not implemented	72.99	76.81	69.12	7.69	0.38
1 time per week	5.84	7.25	4.41	2.84	
2-4 times per week	9.49	13.24	5.80	7.44	
1 or more times per day	11.68	10.14	13.24	-3.10	
<i>Tribes</i> group development process					
Not implemented	85.07	88.06	82.09	5.97	0.67
1 time per week	5.97	5.97	5.97	0.00	
2-4 times per week	4.48	5.97	2.99	2.98	
1 or more times per day	4.48	2.99	5.97	-2.98	
Community circles					
Not implemented	72.99	73.91	72.06	1.85	0.86
1 time per week	11.68	10.14	13.24	-3.10	
2-4 times per week	10.22	11.59	8.82	2.77	
1 or more times per day	5.11	4.35	5.88	-1.53	
Pairs, triads, and/or small groupings					
Not implemented	70.07	72.46	67.65	4.81	0.84
1 time per week	5.11	4.35	5.88	-1.53	
2-4 times per week	12.41	13.04	11.76	1.28	
1 or more times per day	12.41	10.14	14.71	-4.57	
Directly teach collaborative group skills					
Not implemented	73.33	76.41	70.15	6.26	0.77
1 time per week	5.93	5.88	5.97	-0.09	
2-4 times per week	12.59	11.76	13.43	-1.67	
1 or more times per day	8.15	5.88	10.45	-4.57	
Student reflection on learning					
Not implemented	80.60	80.60	73.85	6.75	0.13
1 time per week	2.99	2.99	12.31	-9.32	
2-4 times per week	11.94	11.94	6.15	5.79	
1 or more times per day	4.48	4.48	7.69	-3.21	
Appreciations					
Not implemented	77.61	77.61	71.21	6.40	0.19
1 time per week	8.96	8.96	10.61	-1.65	
2-4 times per week	10.45	10.45	6.06	4.39	
1 or more times per day	2.99	2.99	12.12	-9.13	
Teachers	137	69	68		

Notes:

^A Fisher's exact tests were calculated to compute *p*-values (two-sided).

Source: Baseline teacher survey and teacher rosters.

Table 3.4. Frequency of teacher implementation of Tribes activities prior to random assignment – Grades 1-2

	Overall %	Intervention Group %	Control Group %	Difference	p-value ^A
Retained Sample with pretest data – Grades 1-2					
Use of <i>Tribes</i> community agreements					
Not implemented	74.32	70.00	79.41	-9.41	0.18
1 time per week	5.41	10.00	0.00	10.00	
2-4 times per week	10.81	7.50	14.71	-7.21	
1 or more times per day	9.46	12.50	5.88	6.62	
<i>Tribes</i> group development process					
Not implemented	87.50	84.21	91.18	-6.97	0.52
1 time per week	5.56	7.89	2.94	4.95	
2-4 times per week	2.78	5.26	0.00	5.26	
1 or more times per day	4.17	2.63	5.88	-3.25	
Community circles					
Not implemented	72.97	67.50	79.41	-11.91	0.37
1 time per week	8.11	10.00	5.88	4.12	
2-4 times per week	12.16	17.50	5.88	11.62	
1 or more times per day	6.76	5.00	8.82	-3.82	
Pairs, triads, and/or small groupings					
Not implemented	70.27	65.00	76.47	-11.47	0.77
1 time per week	6.76	7.50	5.88	1.62	
2-4 times per week	12.16	15.00	8.82	6.18	
1 or more times per day	12.50	12.50	8.82	3.68	
Directly teach collaborative group skills					
Not implemented	72.60	69.23	76.47	-7.24	0.91
1 time per week	5.48	5.13	5.88	-0.75	
2-4 times per week	15.07	17.95	11.76	6.19	
1 or more times per day	6.85	7.69	5.88	1.81	
Student reflection on learning					
Not implemented	76.71	71.79	82.35	-10.56	0.38
1 time per week	8.22	5.13	11.76	-6.63	
2-4 times per week	9.59	17.95	0.00	17.95	
1 or more times per day	5.48	5.13	5.88	-0.75	
Appreciations					
Not implemented	76.39	73.68	79.41	-5.73	0.24
1 time per week	12.50	13.16	11.76	1.40	
2-4 times per week	5.56	10.53	0.00	10.53	
1 or more times per day	5.56	2.63	8.82	-6.19	
Teachers	74	40	34		

Notes:

^A Fisher's exact tests were calculated to compute *p*-values (two-sided).

Source: Baseline teacher survey and teacher rosters.

Table 3.5. Frequency of teacher implementation of Tribes activities prior to random assignment – Grades 3-4

	Overall %	Intervention Group %	Control Group %	Difference	p-value ^A
Retained Sample with pretest data – Grades 3-4					
Use of <i>Tribes</i> community agreements					
Not implemented	71.43	86.21	58.82	27.39	0.14
1 time per week	6.35	3.45	8.82	-5.37	
2-4 times per week	7.94	3.45	11.76	-8.31	
1 or more times per day	14.29	6.90	20.59	-13.69	
<i>Tribes</i> group development process					
Not implemented	82.26	91.10	72.73	18.37	0.16
1 time per week	6.45	3.45	9.09	-5.64	
2-4 times per week	6.45	0.00	12.12	-12.12	
1 or more times per day	4.84	3.45	6.06	-2.61	
Community circles					
Not implemented	73.02	82.76	64.71	18.05	0.40
1 time per week	15.87	10.34	20.59	-10.25	
2-4 times per week	7.94	3.45	11.76	-8.31	
1 or more times per day	3.17	3.45	2.94	0.51	
Pairs, triads, and/or small groupings					
Not implemented	69.84	82.76	58.82	23.94	0.15
1 time per week	3.17	0.00	5.88	-5.88	
2-4 times per week	12.70	10.34	14.71	-4.37	
1 or more times per day	14.29	6.90	20.59	-13.69	
Directly teach collaborative group skills					
Not implemented	74.19	86.21	63.64	22.57	0.15
1 time per week	6.45	6.90	6.06	0.84	
2-4 times per week	9.68	3.45	15.15	-11.70	
1 or more times per day	9.68	3.45	15.15	-11.70	
Student reflection on learning					
Not implemented	77.97	92.86	64.52	28.34	0.05
1 time per week	6.78	0.00	12.90	-12.90	
2-4 times per week	8.47	3.57	12.90	-9.33	
1 or more times per day	6.78	3.57	9.68	-6.11	
Appreciations					
Not implemented	72.13	82.76	62.50	20.26	0.30
1 time per week	6.56	3.45	9.38	-5.93	
2-4 times per week	11.48	10.34	12.50	-2.16	
1 or more times per day	9.84	3.45	15.63	-12.18	
Teachers	63	29	34		

Notes:

^A Fisher's exact tests were calculated to compute *p*-values (two-sided).

Source: Baseline teacher survey and teacher rosters.

Year 1 Implementation and the Treatment Contrast

Table 3.6 shows teacher reports of *Tribes* implementation and exposure to program training during the intervention year. As shown in the table, 97% of teachers in the intervention group reported using *Tribes* in their classrooms during Year 1, compared to 26% of teachers in the control group. High proportions of teachers (90%) reported working with other teachers with *Tribes* training, which would be expected given that the design practically assured that half the teachers within each grade would be trained and have the opportunity to implement *Tribes* in their classrooms. Finally, 89% of teachers in the intervention group reported receiving training from CenterSource, compared to 11% of teachers in the comparison group.⁶ The results for the grade 1-2 and 3-4 subsamples are similar to those for the overall sample, although, consistent with the baseline results discussed above, control group teachers in grades 3-4 reported higher levels of *Tribes* implementation than control group teachers in grades 1-2 (34% vs. 19%) – suggesting that the treatment contrast is less pronounced for the grade 3-4 subsample.

Tables 3.7-3.9 present teacher reports of *Tribes*-aligned activities for the overall sample, grade 1-2 sample, and grade 3-4 sample, respectively. Overall, the results indicate a substantial contrast between intervention and control teachers in the implementation of *Tribes*-aligned activities. Depending on the activity asked about, between 84% and 96% of intervention group teachers reported that they implemented the activities at least weekly in their classroom, compared to 25% to 32% among control teachers (Table 3.7). The most frequently occurring activities implemented in intervention classrooms were community agreements, small group work (pairs, triads, and/or small groups), and direct teaching of collaborative skills. Approximately 80% of intervention group teachers reported implementing these activities two or more times per week, 40-52 percent one or more times per day. Classroom time was also frequently used for student reflection on content, social, and personal learning – 67% of intervention group teachers reported that they devoted time for student reflection two or more times per week. Although still commonly used, classroom time was less frequently used for community circles (52% two or more times per week) and the *Tribes* group development process (51% two or more times per week) than for the other activities.

Several differences are apparent across the grades 1-2 and 3-4 subsamples. In general, intervention teachers in grades 1-2 reported higher levels of implementation than intervention

⁶ Of the 8 intervention group teachers who did not report receiving training from CenterSource, 3 reported that they did not know whether they received such training and 5 reported that they did not receive such training. Analyses of training attendance log data indicated that 4 attended the training for 4 days, 2 attended for 1 day, and 2 did not attend the training at all.

teachers in grades 3-4. For example, 66% of grade 1-2 intervention teachers reported that they used classroom time for community circles two or more times per week, compared to 37% of grade 3-4 intervention group teachers. Seventy-five percent of intervention teachers in grades 1-2 reported using class time for appreciations more than one time per week, compared to 50% of grade 3-4 teachers. Contrary to this pattern, grade 3-4 intervention group teachers reported higher rates of using class time for community agreements than grade 1-2 intervention group teachers.

Table 3.6. Teacher exposure to Tribes Program in intervention year

	Overall %	Intervention Group %	Control Group %	Difference	p-value ^A
Retained Sample with Year 1 data					
Used <i>Tribes</i> in intervention year	61.54	97.18	26.39	70.79	0.00
Worked with teachers with <i>Tribes</i> training	90.21	94.37	86.11	8.26	0.16
Rec'd <i>Tribes</i> training from colleagues	19.72	22.86	16.67	6.19	0.40
Rec'd <i>Tribes</i> training from CenterSource	50.00	88.73	11.27	77.46	0.00
Teachers	143	71	72		
Retained Sample with Year 1 data – Grades 1-2					
Used <i>Tribes</i> in intervention year	60.26	97.56	18.92	78.64	0.00
Worked with teachers with <i>Tribes</i> training	88.46	92.68	83.78	8.90	0.29
Rec'd <i>Tribes</i> training from colleagues	21.79	21.95	21.62	0.33	1.00
Rec'd <i>Tribes</i> training from CenterSource	52.56	92.68	8.11	84.57	0.00
Teachers	78	41	37		
Retained Sample with Year 1 data – Grades 3-4					
Used <i>Tribes</i> in intervention year	63.08	96.67	34.29	62.38	0.00
Worked with teachers with <i>Tribes</i> training	92.31	96.67	88.57	8.10	0.36
Rec'd <i>Tribes</i> training from colleagues	17.19	24.14	11.43	12.71	0.20
Rec'd <i>Tribes</i> training from CenterSource	46.88	83.33	14.71	68.62	0.00
Teachers	65	30	35		

Notes:

^A Fisher's exact tests were calculated to compute *p*-values (two-sided).

Source: Implementation year teacher survey and teacher rosters.

Table 3.7. Frequency of teacher implementation of Tribes activities during implementation year

	Overall %	Intervention Group %	Control Group %	Difference	p-value ^A
Retained Sample with Year 1 data					
Use of <i>Tribes</i> community agreements					
Not implemented	35.97	4.29	68.12	-63.83	0.00
1 time per week	12.95	17.14	8.70	8.44	
2-4 times per week	14.39	25.71	2.90	22.81	
1 or more times per day	36.39	52.86	20.29	32.57	
<i>Tribes</i> group development process					
Not implemented	45.32	15.71	75.36	-59.65	0.00
1 time per week	21.58	35.86	10.14	25.72	
2-4 times per week	15.11	21.43	8.70	12.73	
1 or more times per day	17.99	30.00	5.80	24.20	
Community circles					
Not implemented	40.71	11.27	71.01	-59.74	0.00
1 time per week	25.71	35.21	15.94	19.27	
2-4 times per week	17.14	26.76	7.25	19.51	
1 or more times per day	16.43	26.76	5.80	20.96	
Pairs, triads, and/or small groupings					
Not implemented	35.71	4.29	67.14	-62.85	0.00
1 time per week	8.57	14.29	2.86	11.43	
2-4 times per week	22.86	35.71	10.00	25.71	
1 or more times per day	32.86	45.71	20.00	25.71	
Directly teach collaborative group skills					
Not implemented	38.85	7.14	71.01	-63.87	0.00
1 time per week	9.35	14.29	4.35	9.94	
2-4 times per week	24.46	38.57	10.14	28.43	
1 or more times per day	27.34	40.00	14.49	25.51	
Student reflection on learning					
Not implemented	37.86	8.45	68.12	-59.67	0.00
1 time per week	17.14	23.94	10.14	13.80	
2-4 times per week	21.43	30.99	11.59	19.40	
1 or more times per day	23.57	36.62	10.14	26.48	
Appreciations					
Not implemented	38.85	7.14	71.01	-63.87	0.00
1 time per week	20.86	28.57	13.04	15.53	
2-4 times per week	12.95	21.29	1.45	19.84	
1 or more times per day	27.34	40.00	14.49	25.51	
Teachers	141	71	70		

Notes:

^A Fisher's exact tests were calculated to compute *p*-values (two-sided).

Source: Implementation year teacher survey and teacher rosters.

Table 3.8. Frequency of teacher implementation of Tribes activities during implementation year – Grades 1-2

	Overall %	Intervention Group %	Control Group %	Difference	p-value ^A
Retained Sample with Year 1 data – Grades 1-2					
Use of <i>Tribes</i> community agreements					
Not implemented	36.36	4.88	72.22	-67.34	0.00
1 time per week	14.29	19.51	8.33	11.18	
2-4 times per week	16.88	29.27	2.78	26.49	
1 or more times per day	32.47	46.34	16.67	29.67	
<i>Tribes</i> group development process					
Not implemented	44.74	14.63	80.00	-65.37	0.00
1 time per week	19.74	29.27	8.57	20.70	
2-4 times per week	14.47	21.95	5.71	16.24	
1 or more times per day	21.05	34.15	5.71	28.44	
Community circles					
Not implemented	41.56	12.20	75.00	-62.80	0.00
1 time per week	16.88	21.95	11.11	10.84	
2-4 times per week	20.78	34.15	5.56	28.59	
1 or more times per day	20.78	31.71	8.33	23.38	
Pairs, triads, and/or small groupings					
Not implemented	35.06	2.44	72.22	-69.78	0.00
1 time per week	7.79	12.20	2.78	9.42	
2-4 times per week	23.38	34.15	11.11	23.04	
1 or more times per day	33.77	51.22	13.89	37.33	
Directly teach collaborative group skills					
Not implemented	40.79	7.50	77.78	-70.28	0.00
1 time per week	5.26	7.50	2.78	4.72	
2-4 times per week	27.63	45.00	8.33	36.67	
1 or more times per day	26.32	40.00	11.11	28.89	
Student reflection on learning					
Not implemented	37.66	7.32	72.22	-64.90	0.00
1 time per week	14.29	19.51	8.33	11.18	
2-4 times per week	23.38	36.59	8.33	28.26	
1 or more times per day	24.68	36.59	11.11	25.48	
Appreciations					
Not implemented	39.47	5.00	77.78	-72.78	0.00
1 time per week	15.79	20.00	11.11	8.89	
2-4 times per week	17.11	32.50	0.00	32.50	
1 or more times per day	27.63	42.50	11.11	31.39	
Teachers	77	41	36		

Notes:

^A Fisher's exact tests were calculated to compute *p*-values (two-sided).

Source: Implementation year teacher survey and teacher rosters.

Table 3.9. Frequency of teacher implementation of Tribes activities during implementation year – Grades 3-4

	Overall %	Intervention Group %	Control Group %	Difference	p-value ^A
Retained Sample with Year 1 data – Grades 1-2					
Use of <i>Tribes</i> community agreements					
Not implemented	35.48	3.45	63.64	-60.19	0.00
1 time per week	11.29	13.79	9.09	4.70	
2-4 times per week	11.29	20.69	3.03	17.66	
1 or more times per day	41.94	62.07	24.24	37.83	
<i>Tribes</i> group development process					
Not implemented	46.03	17.24	70.59	-53.35	0.00
1 time per week	23.81	37.93	11.76	26.17	
2-4 times per week	15.87	20.69	11.76	8.93	
1 or more times per day	14.29	24.14	5.88	18.26	
Community circles					
Not implemented	39.68	10.00	66.67	-56.67	0.00
1 time per week	36.51	53.33	21.21	32.12	
2-4 times per week	12.70	16.67	9.09	7.58	
1 or more times per day	11.11	20.00	3.03	16.97	
Pairs, triads, and/or small groupings					
Not implemented	36.51	6.90	61.72	-54.82	0.00
1 time per week	9.52	17.24	2.94	14.30	
2-4 times per week	22.22	37.93	8.82	29.11	
1 or more times per day	31.75	37.93	26.47	11.46	
Directly teach collaborative group skills					
Not implemented	36.51	6.67	63.64	-56.97	0.00
1 time per week	14.29	23.33	6.06	17.27	
2-4 times per week	20.63	30.00	12.12	17.88	
1 or more times per day	28.57	40.00	18.18	21.82	
Student reflection on learning					
Not implemented	38.10	10.00	63.64	-53.64	0.00
1 time per week	20.63	30.00	12.12	17.88	
2-4 times per week	19.05	23.33	15.15	8.18	
1 or more times per day	22.22	36.67	9.09	27.58	
Appreciations					
Not implemented	38.10	10.00	63.64	-53.64	0.00
1 time per week	26.98	40.00	15.15	24.85	
2-4 times per week	7.94	13.33	3.03	10.30	
1 or more times per day	26.98	36.67	18.18	18.49	

Teachers

Notes:

^A Fisher's exact tests were calculated to compute *p*-values (two-sided).

Source: Implementation year teacher survey and teacher rosters.

Although used less frequently than other components, the community circle is likely the activity most recognizable by those who are only barely familiar with *Tribes* Learning Communities, and is a cornerstone of *Tribes*. Table 3.10 presents teacher reports of the focus of community circle activities. According to the table, the most common focus of community circles is to address a community concern (72%), followed by celebration (65%), and to practice *Tribes* strategies (56%). The least common focus among the areas asked about is to lay the groundwork for lessons (41%). The results are similar across grade sub-samples, except teachers in grades 1-2 are substantially less likely to report that they use community circles to practice *Tribes* strategies than teachers in grades 3-4 (42% vs. 77%).

Table 3.10. Typical focus of community circle activities – Intervention group teachers

	Overall %	Grades 1-2 %	Grades 3-4 %
Retained Sample with Year 1 data			
Focus of community circle activity			
Address community concern	72.00	66.67	80.00
Focus the class	53.33	55.56	50.00
Groundwork for day’s lessons	41.33	42.22	40.00
Celebration	65.33	64.44	66.67
Practice <i>Tribes</i> strategies	56.00	42.22	76.67
Teachers (Intervention group only)	75	45	30

Notes:

Source: Implementation year teacher survey and teacher rosters.

Summary of Implementation Findings

Tribes is an intensive universal prevention strategy implemented in the class for the entire academic year, with children organized into smaller learning groups (i.e., “*Tribes*”) and teachers trained to facilitate positive classroom climate, respect for others, teamwork, building of relationships, and accountability. Instead of a set curriculum, *Tribes* utilizes an array of strategies to teach and reinforce collaborative skills that are integrated within the regular academic curriculum. Students and teachers agree to honor four critical agreements while in the classroom: (1) to listen attentively to one another, (2) to show appreciation for one another, (3) to show mutual respect, and (4) to agree that all students have the right not to participate in *Tribes*-related activities in which they would rather not participate. Positive expectations and beliefs are triggered within *Tribes* classrooms by helping students learn to set goals, define expectations for themselves and their learning group, and reflect on what was learned and how it was learned after every group

learning experience. Through the practices of reflection and appreciation, peers acknowledge each other for their contributions and discover their own strengths and assets. Twelve collaborative skills are learned so that students can work effectively together. The skills are woven into curriculum as “social learning objectives” and are assessed along with both “personal” and “content learning objectives.”

As designed, the *Tribes* professional development consisted of 24 hours of training spread across three days. The course material consists of eight modules, each approximately three hours long. Participating teachers also received onsite follow-up support to aid implementation, ensure fidelity, and address implementation challenges. A certified *Tribes* trainer visited each school site for one day during the implementation year and primarily worked with teachers on an individual basis. Of the 79 teachers in the intervention group in the implementation year, 69 (87%) completed the full *Tribes* training, and 78 (99%) attended at least one of the three days of offered training or remote training. Moreover, 73 (92%) teachers participated in the on-site follow-up training during the implementation year.

Participating teachers had a high degree of familiarity with and prior exposure to *Tribes*. Prior to random assignment, a non-trivial proportion of the sample reported prior use of the program in their classrooms. Twenty-one percent (21%) of participating teachers reported that they used *Tribes* in their classroom during the pre-intervention year and 32% reported using *Tribes* prior to the pre-intervention year. Nineteen percent (19%) reported receiving *Tribes* training from colleagues and 7% (9 teachers) reported receiving *Tribes* training from CenterSource, the developer of the program. Baseline intervention/control group differences in reported exposure to *Tribes* were not statistically significant for four of the five measures of prior exposure. However, 76% of control group teachers and 55% of intervention group teachers reported working with teachers who had been trained to use *Tribes* – a statistically significant difference. For the grade 3-4 sample, over 41% of control group teachers reported using *Tribes* prior to the pre-intervention year, compared to 17% of treatment teachers.

Analyses of teacher reports of use of *Tribes* in their classrooms and implementation of *Tribes*-aligned activities indicated a substantial contrast between intervention and control teachers in implementation. Depending on the activity asked about, between 84% and 96% of intervention group teachers reported that they implemented *Tribes*-aligned activities at least weekly in their classroom, compared to 25% to 32% among control teachers. The most frequent activities implemented in intervention classrooms were community agreements, small group work (pairs, triads, and/or small groups), and direct teaching of collaborative skills. Approximately 80% of

intervention group teachers reported implementing these activities two or more times per week, 40-52 percent one or more times per day. Classroom time was also frequently used for student reflection on content, social, and personal learning – 67% of intervention group teachers reported that they devoted time for student reflection two or more times per week. Although still commonly used, classroom time was less frequently used for community circles (52% two or more times per week) and the *Tribes* group development process (51% two or more times per week) than for the other activities.

Chapter V: Results

The goal of this study was to experimentally test the effectiveness of *Tribes* in preventing aggressive, disruptive, or violent behavior. The logic model linking *Tribes* to student pro-social behavior posits that, by organizing students into smaller learning groups, honoring group agreements to listen attentively and show appreciation and mutual respect – a positive, caring classroom climate is created that provides a structure for positive interaction. Such an environment helps promote student respect for others, teamwork, collaborative skills, and accountability – all factors that would be expected to reduce subsequent aggressive, disruptive, or violent behavior.

As described in Chapter I, we examined the following research questions in evaluating the impact of *Tribes*:

1. Does *Tribes* improve the classroom environment?
2. Does *Tribes* improve and promote teacher practices that facilitate pro-social, non-violent behavior?
3. Does *Tribes* promote protective factors against violence and reduce disruptive and disorderly behavior?
4. Does *Tribes* have a sustained effect six months after leaving a *Tribes* classroom?

This chapter reports on the estimated impacts of *Tribes* on the classroom environment, teacher practices, and student protective factors against violence and disruptive and disorderly behavior. Impacts are first presented for the classroom environment and teacher practices after one year of *Tribes* implementation. We then present estimated program impacts on students' emotional and behavioral strengths; problem behaviors, including aggressive- and rule-breaking behavior; academic performance; and perceptions concerning appropriate conflict resolution strategies – all assessed during the spring after one academic year of *Tribes* implementation. Finally, we present impacts of program exposure on students six months after leaving a *Tribes* classroom.

Impact on Classroom Environments

Tables 4.1-4.3 show estimated program impacts on teacher and classroom outcomes for the overall sample, by teacher grade level, and by cohort, respectively. These results come from regression models that include controls for years of teaching experience, grade taught, pretest

measures of student-centered teaching practices and use of student reflection practices, and pretest measures of each outcome variable (teacher survey outcomes only) or closely-related outcome variable (classroom observation outcomes).

Table 5.1. Estimated impacts on teacher and classroom outcomes

	Intervention group	Control group	Difference	Effect Size	p-value
Overall Sample					
<i>Teacher Survey Outcomes</i>					
Positive Student Behavior	3.08	3.04	0.04	0.09	0.51
Student Centered Teaching Practices	4.03	4.05	-0.03	-0.06	0.69
Use of Student Reflection Practices	3.49	3.44	0.05	0.07	0.60
Student Supportive Learning Practices	3.44	3.54	-0.10	-0.18	0.16
Cooperative Learning Groups	3.73	3.66	0.07	0.11	0.47
Small Group Activities	4.06	4.07	-0.01	-0.02	0.88
Teachers (145)	73	72			
<i>Classroom Observation Outcomes</i>					
Opportunities for small group work	0.60	0.42	0.18**	0.37	0.02
Opportunities for collaboration	0.99	0.78	0.22**	0.53	0.00
Opportunities for reflection	0.38	0.21	0.17**	0.42	0.02
Student engagement	3.82	3.59	0.24*	0.33	0.06
Student respectfulness	2.14	2.12	0.01	0.15	0.90
Student sharing	2.80	2.44	0.36*	0.34	0.07
Classrooms (125)	60	65			

Notes: Data are regression-adjusted using ordinary least squares and logistic regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Teacher surveys and classroom observation data

Overall, very little evidence is provided that *Tribes* impacted teacher reports about the classroom environment or instructional practices. For the overall sample, none of the estimated impacts on teacher survey measures were statistically or substantively significant. For the outcomes based on classroom observations, however, the analyses indicated that there were statistically significant impacts on the classroom environment. *Tribes* classrooms received higher observer ratings than control classrooms on opportunities for small group work, collaboration, and reflection than control classrooms – with effect sizes ranging from 0.37 to 0.53 standard deviation units. Moreover, observer ratings of student engagement ($p < .10$) and student sharing ($p < .10$) were higher in *Tribes* classrooms than in control classrooms, although these differences were not

statistically significant at conventional levels. Overall, the results for classroom observation outcomes in Table 5.1 suggest that *Tribes* impacted the classroom environment and student classroom behavior in ways consistent with the *Tribes* model. Compared to the control group, *Tribes* classrooms manifested more opportunities for small group work, student collaboration, and student reflection; and students in *Tribes* classrooms appeared to be more engaged and exhibited more sharing behavior. Such impacts, however, were not found for the teacher survey outcomes.

As shown in Table 5.2 – the results for the grade-specific samples differ in three notable ways from those reported for the overall sample. First, for the grade 1-2 sample, teachers in *Tribes* classrooms reported higher levels of use of student reflection practices ($p < .10$) than their counterparts in control classrooms. Second, *Tribes* in the grade 1-2 sample was associated with *lower* levels of teacher-reported use of student supportive learning practices. And finally, while many of the estimated impacts on classroom observation outcomes were no longer statistically significant when the sample was stratified by grade taught, the estimated impacts appear to be larger for the grade 3-4 sample than the grade 1-2 sample. All of these results for the grade-specific samples should be interpreted with caution, as the smaller sample size for each subsample reduces statistical power to estimate reliable impact estimates.

The same caveat should be applied to interpreting the results in Table 5.3 – which shows estimated impacts separately for Cohort 1 and Cohort 2 schools. The cohort-specific results show little evidence of *Tribes* impacts on teacher-reported outcomes, although, Cohort 2 teachers in *Tribes* classrooms reported higher levels of use of student reflection practices than those in control classrooms. The results based on classroom observation outcomes are similar for Cohort 1 and Cohort 2. In both cohorts, *Tribes* classrooms exhibited more opportunities for small group work, student collaboration, and student reflection and higher student engagement and sharing behavior.

Table 5.2. Estimated impacts on teacher and classroom outcomes by student grade

	Intervention group	Control group	Difference	Effect Size	p-value
Grades 1-2					
<i>Teacher Survey Outcomes</i>					
Positive Student Behavior	3.06	3.05	0.01	0.02	0.91
Student Centered Teaching Practices	4.03	4.06	-0.03	-0.06	0.77
Use of Student Refection Practices	3.52	3.25	0.27*	0.32	0.06
Student Supportive Learning Practices	3.52	3.53	-0.01	-0.02	0.92
Cooperative Learning Groups	3.76	3.59	0.16	0.23	0.27
Small Group Activities	4.06	4.00	0.06	0.14	0.46
Teachers (81)	44	37			
<i>Classroom Observation Outcomes</i>					
Opportunities for small group work	0.67	0.57	0.10	0.20	0.41
Opportunities for collaboration	0.98	0.84	0.14*	0.38	0.05
Opportunities for reflection	0.36	0.20	0.16	0.38	0.13
Student engagement	3.78	3.53	0.24	0.33	0.18
Student respectfulness	2.01	2.20	-0.19	-0.18	0.37
Student sharing	2.81	2.67	0.14	0.13	0.63
Classrooms (75)	41	34			
Grades 3-4					
<i>Teacher Survey Outcomes</i>					
Positive Student Behavior	3.12	3.03	0.09	0.20	0.40
Student Centered Teaching Practices	4.05	4.02	0.03	0.06	0.80
Use of Student Refection Practices	3.43	3.66	-0.22	-0.32	0.16
Student Supportive Learning Practices	3.32	3.56	-0.24**	-0.41	0.05
Cooperative Learning Groups	3.67	3.76	-0.09	-0.16	0.51
Small Group Activities	4.11	4.12	-0.01	-0.03	0.88
Teachers (65)	30	35			
<i>Classroom Observation Outcomes</i>					
Opportunities for small group work	0.52	0.20	0.31	0.71	0.13
Opportunities for collaboration	1.00	0.64	0.45**	0.99	0.00
Opportunities for reflection	0.41	0.24	0.18	0.41	0.20
Student engagement	3.92	3.65	0.26	0.35	0.30
Student respectfulness	2.23	2.12	0.11	0.11	0.64
Student sharing	2.81	2.12	0.68**	0.65	0.04
Classrooms (50)	24	26			

Notes: Data are regression-adjusted using ordinary least squares and logistic regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Teacher surveys and classroom observation data

Table 5.3. Estimated impacts on teacher and classroom outcomes by teacher cohort

	Intervention group	Control group	Difference	Effect Size	p-value
Cohort 1					
<i>Teacher Survey Outcomes</i>					
Positive Student Behavior	3.03	3.03	0.00	0.00	0.99
Student Centered Teaching Practices	3.98	4.15	-0.17	-0.44	0.08
Use of Student Refection Practices	3.41	3.64	-0.22	-0.29	0.15
Student Supportive Learning Practices	3.52	3.70	-0.17	-0.30	0.15
Cooperative Learning Groups	3.83	3.80	0.03	0.04	0.84
Small Group Activities	4.11	4.17	-0.06	-0.12	0.51
Teachers (61)	31	30			
<i>Classroom Observation Outcomes</i>					
Opportunities for small group work	0.62	0.40	0.22*	0.45	0.06
Opportunities for collaboration	0.98	0.68	0.30**	0.65	0.01
Opportunities for reflection	0.56	0.38	0.18**	0.37	0.04
Student engagement	3.54	3.37	0.16	0.22	0.49
Student respectfulness	2.21	2.17	0.03	0.04	0.86
Student sharing	2.74	2.46	0.28	0.24	0.36
Classrooms (57)	30	27			
Cohort 2					
<i>Teacher Survey Outcomes</i>					
Positive Student Behavior	3.11	3.05	0.06	0.12	0.44
Student Centered Teaching Practices	4.08	3.98	0.10	0.21	0.27
Use of Student Refection Practices	3.58	3.27	0.31**	0.40	0.02
Student Supportive Learning Practices	3.40	3.40	0.00	-0.01	0.97
Cooperative Learning Groups	3.67	3.56	0.11	0.20	0.38
Small Group Activities	4.04	4.00	0.05	0.10	0.58
Teachers (84)	42	42			
<i>Classroom Observation Outcomes</i>					
Opportunities for small group work	0.59	0.41	0.18	0.35	0.13
Opportunities for collaboration	1.00	0.87	0.14**	0.41	0.03
Opportunities for reflection	0.23	0.06	0.17*	0.58	0.06
Student engagement	4.08	3.76	0.32*	0.48	0.07
Student respectfulness	2.08	2.08	0.00	0.00	0.99
Student sharing	2.88	2.41	0.46	0.48	0.14
Classrooms (68)	35	33			

Notes: Data are regression-adjusted using ordinary least squares and logistic regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Teacher surveys and classroom observation data

Impact on Student Outcomes

This section reports findings that address the research questions about potential impacts of *Tribes* on protective factors against violence and disruptive and disorderly behavior. We first present *Tribes* impacts on teacher- and parent-reports of students' emotional and behavioral strengths (BERS-2) and problem behaviors (ABCL), as well as on student test scores. We then present estimates of impacts on student perceptions concerning conflict resolution strategies, assessed with student interviews. These first two sets of results focus on impacts immediately after student exposure to one academic year of *Tribes* implementation. At the end of this section, we present estimates of the sustained impacts of program exposure on students' emotional and behavioral strengths (BERS-2) and problem behaviors (ABCL) six months after leaving a *Tribes* classroom.

Immediate impacts of one academic year of *Tribes* exposure – BERS-2 and ABCL

Table 5.4 shows estimated impacts of *Tribes* on teacher- and parent-reports of emotional/behavioral strengths and problem behaviors, as well as on student test scores. Overall, there is limited evidence for the overall sample that *Tribes* is associated with increases in protective factors against violence and declines in precursors to violence and aggression. Of the 19 statistical tests reported in Table 5.4, one was statistically significant at the 0.05 level and two were significant at the 0.10 level. Of the three estimates that are or are approaching statistical significance, one of the estimates favors students in the control group and two favor students in the intervention group. As discussed further below, the results in Table 5.4 mask noteworthy differences in impacts across grade and gender subgroups as well as across students identified by teachers at baseline as being at high academic and behavioral risk.

Across the entire sample, however, the results in Table 5.4 indicate that *Tribes* produced statistically significant gains in parent reports of intrapersonal strengths ($p < 0.10$) and family involvement. *Tribes* was associated with declines in student performance in mathematics ($p < 0.10$). These impacts ranged from -0.19 to 0.14 standard deviation units in magnitude. No significant impacts of *Tribes* on aggression, rule-breaking behaviors, or other problem behaviors were apparent for the overall sample.

Tables 4.5 and 4.6 show estimated impacts separately for students in grades 1-2 and 3-4, respectively. For students in grades 1-2, the results present a mixed picture regarding the effects of *Tribes* on student behavior and well-being. *Tribes* was associated with increases in parent-reports of interpersonal strengths, intrapersonal strengths, affective strengths, and family involvement –

with effect sizes ranging from 0.17 to 0.25. However, grade 1-2 students in *Tribes* classrooms exhibited higher levels of teacher-reported aggressive behavior (effect size = 0.26) and rule-breaking behavior (effect size = 0.24) than their counterparts in control classrooms. *Tribes* is also associated with substantial declines in 2nd graders' English language arts (effect size = -0.28) and mathematics (effect size = -0.32) test performance.

Table 5.4. Estimated impacts on student outcomes – Grades 1-4

	Intervention group	Control group	Difference	Effect Size	p-value
Overall Sample					
<i>Emotional & Behavioral Strengths (BERS-2) – Teacher Report</i>					
Interpersonal strength	2.25	2.21	0.04	0.08	0.43
Intrapersonal strength	2.32	2.24	0.07	0.14	0.17
School functioning	2.24	2.20	0.04	0.07	0.46
Affective strength	2.28	2.19	0.09	0.17	0.15
<i>Problem Behaviors (ABCL) – Teacher report</i>					
Aggressive behavior	0.19	0.17	0.02	0.08	0.29
Rule-breaking behavior	0.20	0.18	0.02	0.07	0.39
Social problems	0.15	0.15	0.01	0.03	0.76
Attention problems	0.35	0.36	0.00	-0.01	0.92
<i>Emotional & Behavioral Strengths (BERS-2) – Parent Report</i>					
Interpersonal strength	2.07	2.03	0.04	0.08	0.20
Intrapersonal strength	2.39	2.34	0.05*	0.11	0.09
School functioning	2.53	2.48	0.04	0.06	0.38
Affective strength	2.38	2.37	0.01	0.02	0.78
Family involvement	2.37	2.31	0.07**	0.14	0.03
<i>Problem Behaviors (ABCL) – Parent report</i>					
Aggressive behavior	0.28	0.29	-0.01	-0.02	0.77
Rule-breaking behavior	0.17	0.18	-0.01	-0.04	0.52
Social problems	0.30	0.29	0.01	0.02	0.75
Attention problems	0.42	0.42	0.00	0.00	0.94
<i>Academic performance – Archival Data</i>					
ELA Test Scores	0.04	0.14	-0.10	-0.14	0.11
Mathematics Test Scores	0.06	0.20	-0.14*	-0.19	0.08

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

These estimated adverse effects of *Tribes* are puzzling. It is conceivable that the student-centered, small group structure of *Tribes* provides more opportunities for students to demonstrate aggressive and rule-breaking behavior in *Tribes* classrooms than in traditional classrooms. The fact that the point-estimates for teacher-reported aggression and rule-breaking are quite different from those for parent-reported measures provides suggestive evidence that the alternative classroom structure promoted by *Tribes* may make aggression more noticeable, but may not increase aggressive behavior in other contexts. Accounting for the deleterious impacts of *Tribes* on student test scores is more difficult, although we speculate that because we evaluated the impact of the program as teachers were learning to use it in their classrooms, such transitioning could be associated with a disruption in classroom management practices that has adverse consequences for some students' performance. Another possibility is that the performance of otherwise high-performing students may have been adversely affected by working in small, mixed-ability collaborative groups—one of the strategies encouraged by the program. To further investigate this possibility, we estimated impacts separately for students identified by teachers at baseline at different levels of academic and behavioral risk. We describe these impacts in the next section.

The estimates presented for students in grades 3-4 in Table 5.6 indicate that *Tribes* students exhibited higher scores on teacher-reported interpersonal strengths ($p < 0.10$) and lower scores on affect parent-reported affective strengths ($p < 0.10$). No other impact estimates were statistically significant or approached statistical significance.

We also estimated differences in program impacts for girls and boys. Tables 4.7, 4.8, and 4.9 present gender-specific impacts for the overall sample, grade 1-2 sample, and grade 3-4 sample. Across each of the sample, only rarely were the gender differences in impacts statistically significant, but the patterns across gender were fairly consistent. For the overall sample, *Tribes* appeared to have more beneficial impacts for boys than girls. Boys in *Tribes* classrooms exhibited higher scores than those in control classrooms on teacher reports of intrapersonal and affective strengths ($p < 0.10$) and parent reports of intrapersonal strengths ($p < 0.10$). Boys also had lower scores on parent reports of rule-breaking behavior. Girls in *Tribes* classrooms exhibited higher levels of family involvement than their counterparts in control schools, but exhibited substantially lower test scores.

For the grade 1-2 sample (Table 5.8), *Tribes* impacts on boys' problem behavior differed according to whether the teacher or parent was reporting about the behavior. *Tribes* increased boys' aggressive and rule-breaking behavior according to teachers, but decreased parent-reported

rule-breaking behavior. These conflicting results are consistent with the notion that *Tribes* provides more opportunities for students, particularly boys, to demonstrate aggressive and rule-breaking behavior in *Tribes* classrooms, but not in other contexts. In addition, *Tribes* had more consistent beneficial impacts on parent reports of emotional and behavior strengths for grades 1-2 girls than for boys – with positive impacts for girls in the areas of interpersonal strengths, intrapersonal strengths, affective strengths, and family involvement. *Tribes* generally had stronger negative impacts on test scores for girls than boys, particular for English language arts test scores.

Table 5.5. Estimated impacts on student outcomes – Grades 1-2

	Intervention group	Control group	Difference	Effect Size	p-value
Grades 1-2					
<i>Emotional & Behavioral Strengths (BERS-2) – Teacher Report</i>					
Interpersonal strength	2.20	2.24	-0.03	-0.05	0.66
Intrapersonal strength	2.32	2.29	0.03	0.06	0.61
School functioning	2.21	2.23	-0.02	-0.03	0.78
Affective strength	2.30	2.26	0.04	0.07	0.59
<i>Problem Behaviors (ABCL) – Teacher report</i>					
Aggressive behavior	0.22	0.15	0.07**	0.26	0.01
Rule-breaking behavior	0.22	0.15	0.06**	0.24	0.02
Social problems	0.17	0.14	0.03	0.12	0.24
Attention problems	0.36	0.32	0.04	0.11	0.28
<i>Emotional & Behavioral Strengths (BERS-2) – Parent Report</i>					
Interpersonal strength	2.10	2.00	0.10**	0.19	0.03
Intrapersonal strength	2.43	2.33	0.11**	0.22	0.01
School functioning	2.58	2.49	0.09	0.13	0.19
Affective strength	2.44	2.36	0.08**	0.17	0.04
Family involvement	2.40	2.28	0.12**	0.25	<0.01
<i>Problem Behaviors (ABCL) – Parent report</i>					
Aggressive behavior	0.28	0.30	-0.02	-0.06	0.51
Rule-breaking behavior	0.18	0.19	-0.02	-0.06	0.44
Social problems	0.29	0.30	-0.01	-0.02	0.79
Attention problems	0.42	0.41	0.01	0.03	0.75
<i>Academic performance – Archival Data</i>					
ELA Test Scores	-0.01	0.27	-0.28**	-0.27	0.01
Mathematics Test Scores	0.00	0.32	-0.32**	-0.34	<0.01

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

Table 5.6. Estimated impacts on student outcomes – Grades 3-4

	Intervention group	Control group	Difference	Effect Size	p-value
Grades 3-4					
<i>Emotional & Behavioral Strengths (BERS-2) – Teacher Report</i>					
Interpersonal strength	2.30	2.18	0.12*	0.24	0.09
Intrapersonal strength	2.31	2.21	0.10	0.21	0.22
School functioning	2.26	2.16	0.10	0.17	0.11
Affective strength	2.24	2.13	0.11	0.23	0.26
<i>Problem Behaviors (ABCL) – Teacher report</i>					
Aggressive behavior	0.16	0.20	-0.04	-0.18	0.15
Rule-breaking behavior	0.16	0.21	-0.05	-0.24	0.14
Social problems	0.13	0.17	-0.04	-0.23	0.17
Attention problems	0.34	0.41	-0.07	-0.20	0.18
<i>Emotional & Behavioral Strengths (BERS-2) – Parent Report</i>					
Interpersonal strength	2.04	2.06	-0.02	-0.05	0.68
Intrapersonal strength	2.35	2.35	-0.01	-0.02	0.85
School functioning	2.48	2.46	0.02	0.03	0.75
Affective strength	2.29	2.39	-0.10*	-0.21	0.06
Family involvement	2.34	2.33	0.01	0.03	0.82
<i>Problem Behaviors (ABCL) – Parent report</i>					
Aggressive behavior	0.27	0.27	0.00	0.00	0.99
Rule-breaking behavior	0.16	0.16	0.01	0.02	0.80
Social problems	0.31	0.29	0.01	0.05	0.69
Attention problems	0.42	0.43	-0.01	-0.02	0.83
<i>Academic performance – Archival Data</i>					
ELA Test Scores	0.07	0.08	0.00	0.00	0.96
Mathematics Test Scores	0.10	0.13	-0.04	-0.04	0.68

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

Table 5.7. Estimated impacts on student outcomes by gender – Grades 1-4

	Female		Male		Difference	p-val
	Impact	Effect Size	Impact	Effect Size		
Grades 1-4						
<i>Emotional & Behavioral Strengths (BERS-2) – Teacher Report</i>						
Interpersonal strength	0.04	0.07	0.05	0.07	-0.01	0.85
Intrapersonal strength	0.02	0.03	0.13**	0.26	-0.11**	0.02
School functioning	0.03	0.05	0.05	0.08	-0.02	0.74
Affective strength	0.05	0.11	0.12*	0.23	-0.07	0.14
<i>Problem Behaviors (ABCL) – Teacher report</i>						
Aggressive behavior	0.02	0.10	0.02	0.07	0.00	0.99
Rule-breaking behavior	0.01	0.06	0.02	0.09	-0.01	0.71
Social problems	0.02	0.12	-0.01	-0.05	0.04	0.13
Attention problems	0.02	0.06	-0.02	-0.06	0.04	0.24
<i>Emotional & Behavioral Strengths (BERS-2) – Parent Report</i>						
Interpersonal strength	0.06	0.12	0.03	0.05	0.03	0.64
Intrapersonal strength	0.03	0.08	0.07*	0.14	-0.03	0.56
School functioning	0.02	0.03	0.07	0.09	-0.05	0.52
Affective strength	0.01	0.03	0.00	0.01	0.01	0.85
Family involvement	0.09**	0.19	0.04	0.09	0.04	0.46
<i>Problem Behaviors (ABCL) – Parent report</i>						
Aggressive behavior	0.01	0.02	-0.02	-0.06	0.02	0.52
Rule-breaking behavior	0.03	0.16	-0.05**	-0.16	0.07**	0.01
Social problems	0.04	0.16	-0.03	-0.09	0.07*	0.06
Attention problems	0.02	0.06	-0.03	-0.06	0.05	0.31
<i>Academic performance – Archival Data</i>						
ELA Test Scores	-0.23**	-0.31	0.03	0.04	-0.26**	<0.01
Mathematics Test Scores	-0.17*	-0.24	-0.11	-0.14	-0.06	0.42

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

Table 5.8. Estimated impacts on student outcomes by gender – Grades 1-2

	Female		Male		Difference	p-val
	Impact	Effect Size	Impact	Effect Size		
Grades 1-2						
<i>Emotional & Behavioral Strengths (BERS-2) – Teacher Report</i>						
Interpersonal strength	-0.01	-0.01	-0.06	-0.09	0.05	0.51
Intrapersonal strength	0.01	0.02	0.06	0.10	-0.05	0.47
School functioning	0.01	0.01	-0.05	-0.07	0.05	0.49
Affective strength	0.01	0.03	0.06	0.10	-0.05	0.48
<i>Problem Behaviors (ABCL) – Teacher report</i>						
Aggressive behavior	0.05	0.23	0.10**	0.29	-0.05	0.27
Rule-breaking behavior	0.02	0.09	0.10**	0.36	-0.08**	0.03
Social problems	0.03	0.14	0.03	0.10	0.01	0.85
Attention problems	0.02	0.06	0.07	0.16	-0.05	0.34
<i>Emotional & Behavioral Strengths (BERS-2) – Parent Report</i>						
Interpersonal strength	0.15**	0.29	0.05	0.10	0.10	0.24
Intrapersonal strength	0.12**	0.26	0.09	0.18	0.03	0.74
School functioning	0.03	0.05	0.15*	0.19	-0.12	0.30
Affective strength	0.11**	0.25	0.05	0.10	0.06	0.42
Family involvement	0.16**	0.33	0.08	0.16	0.08	0.32
<i>Problem Behaviors (ABCL) – Parent report</i>						
Aggressive behavior	-0.01	-0.04	-0.02	-0.07	0.01	0.83
Rule-breaking behavior	0.02	0.12	-0.06**	-0.19	0.08**	0.04
Social problems	0.02	0.07	-0.03	-0.10	0.05	0.31
Attention problems	0.02	0.05	0.01	0.02	0.01	0.89
<i>Academic performance – Archival Data</i>						
ELA Test Scores	-0.45**	-0.48	-0.11	-0.10	0.02**	0.02
Mathematics Test Scores	-0.41**	-0.46	-0.24	-0.24	0.23	0.23

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

Table 5.9. Estimated impacts on student outcomes by gender – Grades 3-4

	Female		Male		Difference	p-val
	Impact	Effect Size	Impact	Effect Size		
Grades 3-4						
<i>Emotional & Behavioral Strengths (BERS-2) – Teacher Report</i>						
Interpersonal strength	0.09	0.17	0.15*	0.31	-0.06	0.46
Intrapersonal strength	0.02	0.03	0.18**	0.43	-0.16**	0.03
School functioning	0.06	0.12	0.13*	0.23	-0.07	0.41
Affective strength	0.07	0.14	0.15	0.32	-0.08	0.30
<i>Problem Behaviors (ABCL) – Teacher report</i>						
Aggressive behavior	-0.02	-0.07	-0.07**	-0.28	0.06	0.16
Rule-breaking behavior	-0.01	-0.07	-0.08**	-0.42	0.07*	0.09
Social problems	-0.01	-0.04	-0.07**	-0.41	0.07*	0.06
Attention problems	0.00	-0.01	-0.13**	-0.37	0.13**	0.02
<i>Emotional & Behavioral Strengths (BERS-2) – Parent Report</i>						
Interpersonal strength	-0.06	-0.14	0.01	0.02	-0.07	0.46
Intrapersonal strength	-0.07	-0.18	0.05	0.11	-0.13	0.17
School functioning	0.01	0.01	0.03	0.04	-0.02	0.86
Affective strength	-0.14**	-0.35	-0.06	-0.12	-0.08	0.38
Family involvement	0.00	0.01	0.02	0.03	-0.01	0.88
<i>Problem Behaviors (ABCL) – Parent report</i>						
Aggressive behavior	0.02	0.07	-0.02	-0.05	0.03	0.57
Rule-breaking behavior	0.03	0.26	-0.02	-0.09	0.06	0.12
Social problems	0.06	0.26	-0.03	-0.11	0.10*	0.09
Attention problems	0.04	0.13	-0.05	-0.13	0.09	0.18
<i>Academic performance – Archival Data</i>						
ELA Test Scores	-0.14*	-0.16	0.12	0.15	-0.27**	<0.01
Mathematics Test Scores	-0.05	-0.05	-0.02	-0.03	-0.02	0.78

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

The results for grade 3-4 students (Table 5.8) again indicate that *Tribes* had more beneficial impacts for boys than girls. Boys in *Tribes* classrooms exhibited higher scores than

those in control classrooms on teacher reports of interpersonal strengths ($p < 0.10$), intrapersonal strengths, and school functioning ($p < 0.10$). They also demonstrated lower levels of aggressive and rule-breaking behavior, and fewer social and attention problems. Only two significant impacts were detected for grade 3-4 girls, and both difference favored the control group. Girls in *Tribes* classrooms exhibited lower effective strengths and lower English language arts test scores than their counterparts in control classrooms.

Immediate impacts on students with different levels of academic and behavioral risk

As described above, we also examined impacts for students with different levels of academic and behavioral risk. Specifically, based on teacher reports of school functioning and aggressive behavior at baseline – we classified students as exhibiting low, medium, and high levels of academic and behavioral risk. For school functioning, students in the bottom third of the sample distribution were classified as low, those in the middle third were classified as medium, and those in the top third were classified as exhibiting high levels of school functioning. For aggression, students who were reported by teachers as not exhibiting any aggression problems (i.e., the teacher marked “not true” on all of the ABCL items measuring aggression) were classified as exhibiting low aggression problems. Approximately 50% of students were reported by teachers as not exhibiting any aggression problems. The remaining students who exhibited some aggression problems were split evenly into medium and high aggression groups. After categorizing students into low, medium, and high levels of academic and behavioral risk, we estimated interactions between baseline risk and intervention status as described in Chapter 3.

Like the results for gender differences described above, only rarely were differences in impacts across levels of academic and behavioral risk statistically significant, but the patterns of program impacts for subgroups were fairly consistent. Table 4.10 shows impacts on student outcomes by baseline levels of school functioning separately for students in grades 1-2 and students in grades 3-4. Tables 4.11 and 4.12 show the same results for girls and boys respectively. For the grade 1-2 sample, *Tribes* was associated with deleterious outcomes for subgroups in two broad areas. First, *Tribes* was associated with increases in teacher-reported behavior problems (aggressive behavior, rule-breaking behavior, and social problems) for students with low levels of school functioning only. Impacts on these behavior problems for students with medium- and high-levels of school functioning were not statistically significant. These results are consistent across the all grade 1-2 students as well as for girls and boys (see Tables 4.11 and 4.12). Second, *Tribes* was also associated with declines in student test scores (2nd grade only) – but in this case, only

students rated as medium or high on school functioning were adversely affected. The negative program impacts on student test scores among students with high levels of school functioning were most consistent and strong for girls. These results are consistent with the notion that high-performing students, particularly girls, may have been adversely affected by working in small, mixed-ability collaborative groups.

Not all the estimated impacts of Tribes for grade 1-2 students were deleterious however. Students rated as high on school functioning in Tribes classrooms exhibited higher gains on parent reports of interpersonal strengths ($p < 0.10$), intrapersonal strengths ($p < 0.10$), and family involvement than their counterparts in control classrooms. Moreover, the impacts in these areas were more consistent for girls than they were for boys (Tables 4.11 and 4.12). Boys in Tribes classrooms who were rated low on school functioning also exhibited lower levels of parent-reported rule breaking behavior than their counterparts in control classrooms. None of these impacts, however, were statistically different across school functioning subgroups.

The estimates for students in grades 3-4 indicate that Tribes was associated with increases in teacher-reported interpersonal strengths, intrapersonal strengths ($p < 0.10$), school functioning, and affective strengths ($p < 0.10$) among students with low and/or medium levels of school functioning at baseline. Tribes was also associated with declines in aggressive behavior, social problems, and attention problems among grade 3-4 students with low and/or medium levels of school functioning. These beneficial impacts were more apparent for boys than for girls. In no case, however, were these impacts statistically different across school functioning subgroups. Tribes did not have statistically significant impacts on parent reported measures, with two exceptions: grade 3-4 girls in Tribes classrooms who were rated as medium on school functioning exhibited higher scores on social problems and lower ELA test scores ($p < 0.10$) than their counterparts in control classrooms.

Tables 4.13, 4.14, and 4.15 show impacts on student outcomes by baseline levels of student aggression for the overall sample of students (by grade level) for girls and boys. The results for aggression subgroups reflect, in mirror image, those for school functioning subgroups. Among students with high baseline levels of aggressive behavior, Tribes had beneficial impacts on teacher reports of emotional and behavioral strengths and problem behaviors in grades 3-4, but had deleterious impacts on teacher reports of problem behaviors in grades 1-2. In addition, Tribes was associated with reductions in parent-reported problem behavior among students with high aggression levels in grades 3-4. Tribes was also associated with declines in student test scores among girls rated as low and/or medium on aggressive behavior, perhaps suggesting that the

school performance of girls with low levels of aggression may have been adversely affected by working in small, mixed-ability collaborative groups.

Table 5.10. Estimated impacts on student outcomes by baseline level of school functioning

	Grades 1 and 2 School Functioning							Grades 3 and 4 School Functioning						
	Low		Medium		High		p-val of differ	Low		Medium		High		p-val of differ
	Impact	Effect Size	Impact	Effect Size	Impact	Effect Size		Impact	Effect Size	Impact	Effect Size	Impact	Effect Size	
<i>Emotional & Behavioral Strengths – Teacher</i>														
Interpersonal strength	-0.03	-0.05	-0.03	-0.07	0.00	0.00	0.95	0.19*	0.29	0.22**	0.41	0.09	0.16	0.52
Intrapersonal strength	0.04	0.07	0.01	0.02	0.05	0.11	0.90	0.13	0.26	0.18*	0.41	0.05	0.12	0.46
School functioning	-0.04	-0.07	0.01	0.02	-0.01	-0.02	0.91	0.23**	0.31	0.16	0.32	0.11	0.27	0.64
Affective strength	-0.02	-0.04	0.05	0.09	0.09	0.17	0.50	0.04	0.07	0.22*	0.41	0.10	0.19	0.28
<i>Problem Behaviors – Teacher</i>														
Aggressive behavior	0.14**	0.49	0.06	0.20	-0.01	-0.04	0.07	-0.08*	-0.18	-0.08*	-0.29	-0.01	-0.04	0.39
Rule-breaking behavior	0.11**	0.42	0.04	0.20	0.03	0.20	0.23	-0.07	-0.17	-0.07	-0.32	-0.04	-0.21	0.90
Social problems	0.10**	0.40	0.05	0.38	-0.03	-0.18	0.02	-0.09**	-0.27	-0.05	-0.23	-0.03	-0.17	0.43
Attention problems	0.06	0.12	0.02	0.07	0.02	0.08	0.85	-0.12*	-0.24	-0.12*	-0.37	-0.07	-0.25	0.77
<i>Emotional & Behavioral Strengths – Parent</i>														
Interpersonal strength	0.06	0.14	0.05	0.11	0.14*	0.27	0.68	0.01	0.02	0.05	0.12	0.01	0.02	0.93
Intrapersonal strength	0.04	0.10	0.05	0.11	0.11*	0.23	0.76	0.02	0.05	-0.09	-0.24	0.05	0.09	0.50
School functioning	0.09	0.13	0.05	0.08	0.03	0.05	0.94	0.09	0.12	0.01	0.02	0.05	0.09	0.92
Affective strength	0.05	0.12	0.07	0.14	0.07	0.15	0.99	-0.06	-0.12	-0.09	-0.21	-0.03	-0.06	0.90
Family involvement	0.05	0.13	0.00	-0.01	0.14**	0.28	0.36	0.07	0.14	-0.05	-0.11	0.03	0.05	0.65
<i>Problem Behaviors – Parent</i>														
Aggressive behavior	-0.02	-0.04	-0.08	-0.29	0.00	0.00	0.49	-0.05	-0.18	-0.03	-0.09	0.01	0.04	0.72
Rule-breaking behavior	-0.06	-0.19	0.00	-0.02	-0.02	-0.10	0.60	0.00	0.00	-0.01	-0.02	-0.01	-0.03	0.99
Social problems	-0.07	-0.18	-0.02	-0.06	0.02	0.07	0.48	-0.05	-0.15	0.09	0.29	0.01	0.06	0.24
Attention problems	0.03	0.07	0.00	0.00	-0.01	-0.02	0.91	-0.04	-0.09	0.01	0.03	0.01	0.02	0.88
<i>Academic performance</i>														
ELA Test Scores	0.06	0.08	-0.44**	-0.57	-0.43**	-0.53	0.02	0.07	0.10	-0.02	-0.02	-0.01	-0.01	0.65
Mathematics Test Scores	-0.15	-0.17	-0.34*	-0.36	-0.33**	-0.44	0.76	-0.04	-0.05	0.00	0.00	-0.05	-0.05	0.90

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable.

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

Table 5.11. Estimated impacts on student outcomes by baseline level of school functioning - girls

	Grades 1 and 2 (girls)							Grades 3 and 4 (girls)						
	School Functioning							School Functioning						
	Low		Medium		High		p-val of differ	Low		Medium		High		p-val of differ
Impact	Effect Size	Impact	Effect Size	Impact	Effect Size	Impact		Effect Size	Impact	Effect Size	Impact	Effect Size		
<i>Emotional & Behavioral Strengths – Teacher</i>														
Interpersonal strength	-0.05	-0.11	-0.01	-0.03	-0.06	-0.17	0.93	0.13	0.26	0.23*	0.45	0.00	0.00	0.29
Intrapersonal strength	-0.07	-0.13	0.04	0.10	-0.02	-0.06	0.66	0.08	0.18	0.13	0.30	-0.04	-0.07	0.41
School functioning	0.00	0.01	0.04	0.19	-0.13	-1.10	0.37	0.24**	0.56	0.12	0.60	0.03	0.24	0.39
Affective strength	-0.14	-0.27	0.03	0.08	0.01	0.02	0.29	0.00	0.01	0.22	0.43	-0.02	-0.03	0.18
<i>Problem Behaviors – Teacher</i>														
Aggressive behavior	0.16**	0.60	0.09	0.27	0.00	-0.02	0.10	-0.05	-0.13	-0.06	-0.28	0.02	0.11	0.53
Rule-breaking behavior	0.11**	0.32	0.04	0.16	0.02	0.17	0.32	-0.07	-0.19	-0.03	-0.14	0.00	0.01	0.63
Social problems	0.12**	0.36*	0.08	0.26	-0.01	-0.11	0.05	-0.08	-0.41	-0.02	-0.07	-0.01	-0.13	0.45
Attention problems	0.01	0.03	0.05	0.20	0.05	0.54	0.89	-0.10	-0.23	-0.07	-0.25	-0.01	-0.04	0.65
<i>Emotional & Behavioral Strengths – Parent</i>														
Interpersonal strength	0.12	0.27	0.10	0.23	0.20**	0.38	0.73	0.01	0.02	0.03	0.06	0.00	0.00	0.98
Intrapersonal strength	0.06	0.12	0.09	0.21	0.15*	0.33	0.80	-0.06	-0.13	-0.13	-0.34	-0.01	-0.03	0.71
School functioning	-0.05	-0.09	-0.04	-0.08	-0.01	-0.02	0.98	0.24	0.29	-0.07	-0.11	0.02	0.08	0.40
Affective strength	0.12	0.27	0.13	0.28	0.06	0.12	0.83	-0.12	-0.35	-0.11	-0.26	-0.11	-0.24	1.00
Family involvement	0.08	0.18	0.07	0.16	0.22**	0.44	0.42	0.07	0.19	0.01	0.02	0.02	0.05	0.91
<i>Problem Behaviors – Parent</i>														
Aggressive behavior	0.02	0.07	-0.04	-0.12	0.02	0.05	0.77	-0.06	-0.22	-0.02	-0.08	0.02	0.10	0.69
Rule-breaking behavior	0.02	0.10	0.07	0.28	0.01	0.06	0.65	0.01	0.08	0.03	0.20	0.02	0.16	0.95
Social problems	-0.02	-0.10	0.03	0.09	0.05	0.18	0.74	-0.04	-0.15	0.15**	0.60	0.02	0.10	0.15
Attention problems	-0.01	-0.02	0.07	0.20	0.01	0.02	0.69	-0.05	-0.13	0.05	0.15	0.06	0.24	0.61
<i>Academic performance</i>														
ELA Test Scores	-0.09	-0.11	-0.50**	-0.56	-0.62**	-0.89	0.04	-0.01	-0.01	-0.21*	-0.30	-0.14	-0.18	0.45
Mathematics Test Scores	-0.19	-0.24	-0.35*	-0.30	-0.45**	-0.73	0.53	0.00	0.00	-0.12	-0.15	-0.10	-0.09	0.79

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable.

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters

Table 5.12. Estimated impacts on student outcomes by baseline level of school functioning - boys

	Grades 1 and 2 (boys)							Grades 3 and 4 (boys)						
	School Functioning							School Functioning						
	Low		Medium		High		p-val of differ	Low		Medium		High		p-val of differ
Impact	Effect Size	Impact	Effect Size	Impact	Effect Size	Impact		Effect Size	Impact	Effect Size	Impact	Effect Size		
<i>Emotional & Behavioral Strengths – Teacher</i>														
Interpersonal strength	0.00	0.01	-0.07	-0.11	0.07	0.14	0.56	0.24**	0.48	0.20	0.55	0.17	0.31	0.88
Intrapersonal strength	0.13	0.21	-0.02	-0.05	0.13	0.27	0.30	0.18	0.41	0.25**	0.62	0.15	0.42	0.75
School functioning	-0.07	-0.19	-0.04	-0.18	0.13	0.97	0.27	0.22*	0.47	0.20	0.89	0.19	1.34	0.98
Affective strength	0.07	0.13	0.06	0.11	0.19*	0.35	0.44	0.07	0.14	0.22	0.44	0.22	0.43	0.49
<i>Problem Behaviors – Teacher</i>														
Aggressive behavior	0.11*	0.27	0.03	0.10	-0.02	-0.06	0.22	-0.11**	-0.29	-0.11*	-0.66	-0.04	-0.17	0.57
Rule-breaking behavior	0.11**	0.28	0.06	0.24	0.04	0.18	0.56	-0.05	-0.16	-0.13**	-0.73	-0.09*	-0.92	0.56
Social problems	0.09*	0.21	0.03	0.18	-0.05	-0.29	0.04	-0.11**	-0.38	-0.10*	-1.04	-0.05	-0.48	0.70
Attention problems	0.09	0.21	0.01	0.03	-0.02	-0.10	0.39	-0.14*	-0.34	-0.18**	-0.72	-0.15*	-0.64	0.92
<i>Emotional & Behavioral Strengths – Parent</i>														
Interpersonal strength	0.03	0.07	-0.01	-0.01	0.07	0.14	0.86	0.01	0.01	0.09	0.22	0.03	0.05	0.89
Intrapersonal strength	0.03	0.09	0.01	0.02	0.07	0.14	0.88	0.08	0.14	-0.04	-0.12	0.13	0.20	0.58
School functioning	0.18	0.23	0.15	0.21	0.08	0.12	0.88	-0.04	-0.05	0.15	0.23	0.09	0.11	0.73
Affective strength	0.01	0.02	0.01	0.01	0.08	0.18	0.84	-0.02	-0.04	-0.07	-0.18	0.06	0.10	0.71
Family involvement	0.04	0.12	-0.09	-0.19	0.06	0.11	0.51	0.08	0.14	-0.12	-0.31	0.04	0.07	0.45
<i>Problem Behaviors – Parent</i>														
Aggressive behavior	-0.04	-0.11	-0.12*	-0.64	-0.02	-0.08	0.48	-0.04	-0.14	-0.04	-0.10	-0.01	-0.03	0.94
Rule-breaking behavior	-0.11**	-0.31	-0.09	-0.61	-0.05	-0.26	0.67	0.00	-0.02	-0.05	-0.12	-0.04	-0.17	0.75
Social problems	-0.10	-0.23	-0.06	-0.35	-0.02	-0.09	0.67	-0.05	-0.15	0.02	0.04	0.00	-0.02	0.81
Attention problems	0.00	0.01	-0.08	-0.21	-0.13*	-0.36	0.36	-0.01	-0.03	-0.05	-0.13	-0.06	-0.17	0.93
<i>Academic performance</i>														
ELA Test Scores	0.14	0.17	-0.40**	-0.62	-0.20	-0.21	0.07	0.10	0.15	0.20	0.25	0.13	0.16	0.84
Mathematics Test Scores	-0.17	-0.19	-0.33	-0.51	-0.21	-0.25	0.82	-0.18	-0.23	0.17	0.18	0.05	0.05	0.13

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable.

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

Table 5.13. Estimated impacts on student outcomes by baseline level of student aggression behavior

	Grades 1 and 2 Aggressive Behavior							Grades 3 and 4 Aggressive Behavior						
	Low		Medium		High		p-val of differ	Low		Medium		High		p-val of differ
	Impact	Effect Size	Impact	Effect Size	Impact	Effect Size		Impact	Effect Size	Impact	Effect Size	Impact	Effect Size	
<i>Emotional & Behavioral Strengths – Teacher</i>														
Interpersonal strength	-0.01	-0.03	0.11	0.23	-0.16	-0.28	0.10	0.09	0.18	0.17	0.36	0.25**	0.44	0.34
Intrapersonal strength	0.06	0.13	0.05	0.08	-0.06	-0.10	0.37	0.08	0.15	0.17	0.29	0.19*	0.45	0.53
School functioning	-0.03	-0.06	0.09	0.13	-0.07	-0.10	0.46	0.08	0.14	0.18	0.28	0.28**	0.41	0.26
Affective strength	0.08	0.15	0.06	0.09	-0.03	-0.05	0.52	0.13	0.25	0.09	0.15	0.13	0.23	0.95
<i>Problem Behaviors – Teacher</i>														
Aggressive behavior	0.03	0.08	0.01	0.02	0.16**	0.50	0.05	-0.03	-0.12	-0.03	-0.12	-0.15**	-0.55	0.12
Rule-breaking behavior	0.01	0.15	0.01	0.05	0.19**	0.57	0.00	-0.05	-0.67	-0.07	-0.50	-0.07	-0.20	0.90
Social problems	-0.01	-0.10	0.00	0.02	0.15**	0.39	0.00	-0.03	-0.41	-0.03	-0.19	-0.15**	-0.58	0.06
Attention problems	0.01	0.08	-0.04	-0.11	0.14**	0.33	0.08	-0.07	-0.32	-0.07	-0.22	-0.22**	-0.51	0.12
<i>Emotional & Behavioral Strengths – Parent</i>														
Interpersonal strength	0.13**	0.26	0.14	0.28	-0.03	-0.07	0.35	-0.03	-0.07	0.07	0.13	0.13	0.23	0.50
Intrapersonal strength	0.12**	0.26	0.17*	0.34	-0.14	-0.33	0.03	-0.06	-0.13	0.01	0.02	0.13	0.31	0.36
School functioning	0.01	0.01	0.19	0.28	-0.07	-0.11	0.39	0.02	0.03	0.14	0.22	0.06	0.09	0.81
Affective strength	0.09	0.19	0.13	0.25	-0.05	-0.11	0.35	-0.10	-0.20	0.00	-0.01	-0.02	-0.05	0.73
Family involvement	0.15**	0.31	0.09	0.18	-0.09	-0.23	0.10	-0.07	-0.15	0.21**	0.40	-0.01	-0.01	0.08
<i>Problem Behaviors – Parent</i>														
Aggressive behavior	-0.04	-0.14	0.06	0.22	-0.07	-0.21	0.30	0.01	0.04	0.03	0.10	-0.18**	-0.38	0.05
Rule-breaking behavior	-0.02	-0.12	0.06	0.32	-0.11**	-0.34	0.04	0.03	0.25	0.02	0.14	-0.14**	-0.35	0.00
Social problems	-0.01	-0.05	0.03	0.09	-0.06	-0.15	0.65	0.05	0.21	0.08	0.35	-0.13*	-0.31	0.06
Attention problems	-0.02	-0.05	0.07	0.18	0.00	-0.01	0.60	0.03	0.11	0.11	0.33	-0.32**	-0.67	0.00
<i>Academic performance</i>														
ELA Test Scores	-0.41**	-0.43	-0.32*	-0.33	-0.05	-0.05	0.23	-0.02	-0.03	0.06	0.06	0.07	0.07	0.90
Mathematics Test Scores	-0.31**	-0.36	-0.30	-0.31	-0.26	-0.27	0.99	-0.02	-0.02	0.03	0.02	-0.07	-0.07	0.91

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable.

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

Table 5.14. Estimated impacts on student outcomes by baseline level of student aggression behavior - girls

	Grades 1 and 2(girls) Aggressive Behavior							Grades 3 and 4(girls) Aggressive Behavior						
	Low		Medium		High		p-val of differ	Low		Medium		High		p-val of differ
	Impact	Effect Size	Impact	Effect Size	Impact	Effect Size		Impact	Effect Size	Impact	Effect Size	Impact	Effect Size	
<i>Emotional & Behavioral Strengths – Teacher</i>														
Interpersonal strength	-0.04	-0.09	-0.02	-0.04	-0.16	-0.30	0.59	0.04	0.09	0.09	0.17	0.12	0.20	0.86
Intrapersonal strength	0.03	0.06	-0.11	-0.21	-0.11	-0.19	0.32	-0.01	-0.02	0.04	0.08	0.21	0.38	0.34
School functioning	-0.05	-0.13	0.04	0.07	-0.06	-0.09	0.78	0.03	0.07	0.12	0.25	0.24	0.34	0.47
Affective strength	0.02	0.03	-0.09	-0.19	-0.04	-0.07	0.62	0.08	0.14	0.02	0.04	-0.01	-0.01	0.85
<i>Problem Behaviors – Teacher</i>														
Aggressive behavior	0.04	0.15	0.05	0.19	0.21**	0.86	0.07	-0.01	-0.04	-0.01	-0.04	-0.13*	-0.51	0.28
Rule-breaking behavior	0.00	0.03	0.01	0.04	0.25**	0.79	0.00	-0.02	-0.37	-0.02	-0.17	-0.05	-0.14	0.91
Social problems	0.01	0.13	0.06	0.33	0.20**	0.56	0.00	0.00	-0.02	0.02	0.09	-0.19**	-0.94	0.02
Attention problems	0.04	0.36	-0.04	-0.21	0.16*	0.37	0.18	-0.02	-0.11	0.02	0.08	-0.20*	-0.48	0.16
<i>Emotional & Behavioral Strengths – Parent</i>														
Interpersonal strength	0.19**	0.38	0.11	0.23	0.08	0.20	0.72	-0.07	-0.18	0.08	0.15	0.31	0.61	0.15
Intrapersonal strength	0.13*	0.29	0.16	0.32	0.01	0.01	0.64	-0.15	-0.32	-0.06	-0.13	0.30*	0.85	0.07
School functioning	-0.04	-0.07	0.06	0.13	-0.25	-0.41	0.47	0.00	0.00	0.23	0.35	0.08	0.18	0.57
Affective strength	0.12	0.25	0.12	0.28	-0.03	-0.07	0.58	-0.16*	-0.38	-0.05	-0.10	-0.01	-0.03	0.63
Family involvement	0.18**	0.38	0.13	0.25	0.01	0.04	0.53	-0.10	-0.24	0.18	0.39	0.25	0.52	0.07
<i>Problem Behaviors – Parent</i>														
Aggressive behavior	-0.03	-0.11	0.12	0.55	-0.03	-0.08	0.22	0.02	0.10	0.01	0.02	-0.29**	-1.21	0.02
Rule-breaking behavior	0.02	0.11	0.13**	0.74	-0.06	-0.24	0.10	0.04	0.34	0.01	0.05	-0.11	-0.92	0.11
Social problems	0.04	0.13	0.06	0.18	-0.04	-0.14	0.70	0.07	0.31	0.07	0.30	-0.15	-0.79	0.15
Attention problems	0.05	0.18	0.06	0.18	-0.24**	-0.62	0.01	0.06	0.17	0.04	0.13	-0.34**	-0.90	0.02
<i>Academic performance</i>														
ELA Test Scores	-0.62**	-0.73	-0.59**	-0.79	-0.13	-0.15	0.13	-0.19*	-0.23	-0.28*	-0.38	0.00	0.00	0.49
Mathematics Test Scores	-0.53**	-0.69	-0.40*	-0.41	-0.34	-0.35	0.74	-0.13	-0.13	-0.21	-0.21	0.15	0.14	0.37

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable.

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

Table 5.15. Estimated impacts on student outcomes by baseline level of student aggression behavior - boys

	Grades 1 and 2 (boys) Aggressive Behavior							Grades 3 and 4 (boys) Aggressive Behavior						
	Low		Medium		High		p-val of differ	Low		Medium		High		p-val of differ
	Impact	Effect Size	Impact	Effect Size	Impact	Effect Size		Impact	Effect Size	Impact	Effect Size	Impact	Effect Size	
<i>Emotional & Behavioral Strengths – Teacher</i>														
Interpersonal strength	0.03	0.07	0.21	0.44	-0.16	-0.27	0.04	0.13	0.30	0.25*	0.54	0.31**	0.55	0.40
Intrapersonal strength	0.11	0.22	0.19*	0.30	-0.03	-0.05	0.19	0.20*	0.42	0.29**	0.44	0.20*	0.65	0.74
School functioning	-0.01	-0.01	0.12	0.19	-0.07	-0.11	0.45	0.13	0.23	0.24*	0.31	0.31**	0.47	0.46
Affective strength	0.17*	0.29	0.19	0.29	-0.02	-0.04	0.16	0.19	0.40	0.16	0.22	0.19	0.38	0.97
<i>Problem Behaviors – Teacher</i>														
Aggressive behavior	0.01	0.10	-0.02	0.13	0.13**	0.56	0.15	-0.06	-0.04	-0.06	-0.04	-0.16**	-0.48	0.29
Rule-breaking behavior	0.03	0.25	0.01	0.10	0.15**	0.43	0.09	-0.09	-0.97	-0.13**	-0.79	-0.08	-0.28	0.78
Social problems	-0.03	-0.30	-0.05	-0.27	0.12**	0.30	0.01	-0.06	-0.82	-0.09	-0.76	-0.14**	-0.47	0.43
Attention problems	-0.02	-0.10	-0.03	-0.07	0.12*	0.30	0.16	-0.12	-0.53	-0.16*	-0.51	-0.25**	-0.52	0.41
<i>Emotional & Behavioral Strengths – Parent</i>														
Interpersonal strength	0.05	0.11	0.18	0.34	-0.09	-0.19	0.27	0.02	0.03	0.09	0.16	0.07	0.12	0.90
Intrapersonal strength	0.13	0.25	0.18	0.37	-0.21*	-0.54	0.02	0.06	0.10	0.10	0.17	0.07	0.15	0.97
School functioning	0.06	0.09	0.31	0.42	0.02	0.04	0.42	0.07	0.08	0.05	0.09	0.06	0.09	1.00
Affective strength	0.05	0.10	0.14	0.24	-0.06	-0.13	0.45	-0.01	-0.01	0.05	0.09	-0.03	-0.07	0.90
Family involvement	0.11	0.22	0.06	0.12	-0.14	-0.36	0.15	-0.03	-0.06	0.24*	0.41	-0.10	-0.20	0.12
<i>Problem Behaviors – Parent</i>														
Aggressive behavior	-0.05	-0.19	-0.01	-0.03	-0.09	-0.26	0.74	-0.02	-0.09	0.05	0.21	-0.14*	-0.25	0.23
Rule-breaking behavior	-0.08**	-0.37	-0.01	-0.07	-0.14**	-0.37	0.31	0.00	0.04	0.03	0.22	-0.16**	-0.34	0.01
Social problems	-0.08	-0.26	0.00	-0.01	-0.07	-0.15	0.74	0.01	0.05	0.08	0.37	-0.14*	-0.29	0.13
Attention problems	-0.09	-0.25	0.11	0.31	-0.21**	-0.42	0.01	-0.01	-0.05	0.18*	0.51	-0.33**	-0.67	0.00
<i>Academic performance</i>														
ELA Test Scores	-0.16	-0.16	-0.08	-0.08	-0.05	-0.05	0.88	0.18	0.21	0.30**	0.27	0.09	0.11	0.58
Mathematics Test Scores	-0.20	-0.21	-0.28	-0.29	-0.37*	-0.39	0.79	0.13	0.12	0.20	0.17	-0.14	-0.13	0.22

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable.

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters

Immediate impacts of one academic year of Tribes exposure – Interview outcomes

As described in Chapter II, to assess student judgments about pro-social concepts, skills taught in *Tribes*, and antisocial attitudes and behaviors, individual clinical style interviews were conducted at two time-points with a randomly selected subset of students from each 3rd/4th grade classroom. Interviewed students were read vignettes describing a conflict situation and prompted for responses. Thirteen measures were coded from the transcribed interviews: (1) student acceptance of aggressive conflict resolution strategies, (2) strategies suggested by the student to prevent and/or intervene in conflict incidents (practical outcome, aggression, appeal to authority figures, open communication, compromise, reliance on impartial arbitration), (3) and expected conflict resolution strategies that the student would use (aggression, appeal to authority figures, open communication, compromise, reliance on impartial arbitration). Table 5.9 presents estimates of program impacts on the interview measures. Of the 13 measures, only one was significant at the 0.10 level – interviewed students in *Tribes* classrooms were more likely than those in control classrooms to rely on a practical outcome to solve a conflict situation, such as just playing with the other party without addressing the conflict. With 13 outcomes however, we cannot rule out that this differences was due to chance factors alone.

Table 5.10 presents estimates separately by gender. Again, few impacts were apparent, although girls in *Tribes* classrooms were less likely than girls in control classrooms to rely on open communication to resolve conflict, and more likely to rely on some sort of impartial arbitration system ($p < 0.10$). Overall, little evidence is provided that *Tribes* impacted the interview measures of student judgments about conflict resolution strategies.

Table 5.9. Estimated impacts on student reasoning about conflict – interview data

	Intervention group	Control group	Difference	Effect Size	p-value
Grades 3-4					
Aggression Acceptance Suggested Strategies	0.09	0.13	-0.04	-0.13	0.49
Practical outcome	0.62	0.66	-0.04	-0.11	0.65
Aggression	0.15	0.15	0.01	0.03	0.92
Appeal to Authority Figure	0.20	0.16	0.04	0.16	0.50
Open Communication	0.14	0.11	0.03	0.15	0.50
Compromise	0.05	0.05	0.00	0.03	0.88
Reliance on Impartial Arbitration	0.10	0.08	0.02	0.10	0.68
Expected Strategies					
Practical outcome	0.29	0.20	0.09*	0.37	0.10
Aggression	0.01	0.01	-0.01	-0.08	0.63
Appeal to Authority Figure	0.22	0.26	-0.03	-0.12	0.55
Open Communication	0.24	0.34	-0.10**	-0.35	0.04
Compromise	0.19	0.24	-0.05	-0.19	0.40
Reliance on Impartial Arbitration	0.06	0.04	0.02	0.17	0.51

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Year 1 student interview data, district archival records, and teacher rosters.

Table 5.10. Estimated impacts on student reasoning about conflict by gender - interview data

	Female		Male		Difference	p-val
	Impact	Effect Size	Impact	Effect Size		
Grades 3-4						
Aggression Acceptance Suggested Strategies	0.01	0.06	-0.10	-0.22	0.11	0.36
Practical outcome	-0.11	-0.39	0.04	0.12	-0.15	0.29
Aggression	0.06	0.22	-0.05	-0.19	0.11	0.32
Appeal to Authority Figure	0.01	0.02	0.08	0.33	-0.07	0.51
Open Communication	-0.05	-0.20	0.10*	0.58	-0.15*	0.07
Compromise	0.01	0.04	0.00	0.01	0.00	0.91
Reliance on Impartial Arbitration	0.00	0.02	0.03	0.17	-0.02	0.70
Expected Strategies						
Practical outcome	0.10	0.45	0.08	0.31	0.02	0.83
Aggression	0.01	0.13	-0.02	-0.20	0.04	0.16
Appeal to Authority Figure	-0.02	-0.06	-0.05	-0.19	0.04	0.74
Open Communication	-0.18**	-0.54	-0.03	-0.13	-0.14	0.12
Compromise	-0.02	-0.09	-0.07	-0.27	0.05	0.61
Reliance on Impartial Arbitration	0.07*	1.41	-0.03	-0.21	0.09**	0.04

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Year 1 student interview data, district archival records, and teacher rosters.

Sustained impacts 6 months after Tribes exposure – BERS-2 and ABCL

Finally, we present impacts of *Tribes* on student outcomes six months after leaving a *Tribes* classroom. As previously described, we collected follow-up teacher-report, parent-report, and test score data for students in grade 3 who were assigned to 4th grade control classrooms in the academic year after Year 1, and students who were in grade 4 who were assigned to grade 5 classrooms subsequently. We chose the grade 4 students because none of their grade 5 teachers were trained on *Tribes yet*, thus providing a good opportunity to examine uncontaminated sustained effects of the program on the 4rd grade students (now in 5th grade).

Table 5.11 presents estimates of the sustained impacts of *Tribes*. Only one statistically significant impact was apparent: students who were exposed to *Tribes* in the prior academic year exhibit higher scores than their counterparts in control classrooms on the teacher-reported interpersonal strength measure. No other statistically significant impacts were detected. With 19 statistical tests, it is possible that the finding for interpersonal strength was simply due to chance.

Table 5.12 shows estimates of sustained impacts for females and male separately. These results also indicate few sustained impacts of *Tribes*. Boys who were in *Tribes* classrooms in the prior year exhibited substantial higher scores than boys in control classrooms on teacher-reported interpersonal strengths, but also substantially higher scores on parent reports of social problems. Girls from *Tribes* classrooms showed lower scores than those from control classrooms on teacher-reported intrapersonal strength ($p < 0.10$) and school functioning ($p < 0.10$) – although these results were not significant at conventional levels. Overall, the results do not provide much evidence of sustained impacts of exposure to *Tribes* on the measures we collected.

Table 5.11. Estimated impacts on student outcomes 6 months after exposure to Tribes

	Intervention group	Control group	Difference	Effect Size	<i>p</i> -value
Grades 3-4					
<i>Emotional & Behavioral Strengths (BERS-2) – Teacher Report</i>					
Interpersonal strength	2.40	2.20	0.20**	0.39	0.02
Intrapersonal strength	2.27	2.34	-0.07	-0.17	0.31
School functioning	2.18	2.33	-0.15	-0.28	0.18
Affective strength	2.18	2.23	-0.05	-0.10	0.58
<i>Problem Behaviors (ABCL) – Teacher report</i>					
Aggressive behavior	0.16	0.13	0.02	0.09	0.44
Rule-breaking behavior	0.17	0.15	0.02	0.08	0.60
Social problems	0.11	0.12	-0.01	-0.04	0.77
Attention problems	0.32	0.32	0.00	-0.01	0.92
<i>Emotional & Behavioral Strengths (BERS-2) – Parent Report</i>					
Interpersonal strength	2.12	2.14	-0.02	-0.04	0.82
Intrapersonal strength	2.34	2.37	-0.04	-0.09	0.64
School functioning	2.57	2.52	0.05	0.08	0.65
Affective strength	2.34	2.37	-0.03	-0.06	0.71
Family involvement	2.28	2.37	-0.09	-0.23	0.23
<i>Problem Behaviors (ABCL) – Parent report</i>					
Aggressive behavior	0.25	0.21	0.04	0.16	0.36
Rule-breaking behavior	0.17	0.14	0.02	0.13	0.49
Social problems	0.31	0.22	0.09	0.37	0.13
Attention problems	0.39	0.35	0.04	0.11	0.68
<i>Academic performance – Archival Data</i>					
ELA Test Scores	0.16	0.10	0.06	0.06	0.35
Mathematics Test Scores	0.12	0.22	-0.10	-0.11	0.39

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 2 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

Table 5.12. Estimated impacts on student outcomes 6 months after exposure to Tribes by gender

	Female		Male		Difference	p-val
	Impact	Effect Size	Impact	Effect Size		
Grades 3-4						
<i>Emotional & Behavioral Strengths (BERS-2) – Teacher Report</i>						
Interpersonal strength	0.13	0.24	0.27**	0.54	-0.14	0.22
Intrapersonal strength	-0.17**	-0.36	0.01	0.03	-0.19*	0.10
School functioning	-0.27**	-0.58	-0.03	-0.05	-0.24**	0.06
Affective strength	-0.14	-0.29	0.04	0.08	-0.18	0.23
<i>Problem Behaviors (ABCL) – Teacher report</i>						
Aggressive behavior	0.05	0.17	0.00	0.02	0.04	0.45
Rule-breaking behavior	0.04	0.17	-0.01	-0.03	0.05	0.41
Social problems	0.03	0.15	-0.04	-0.20	0.07	0.12
Attention problems	0.08	0.23	-0.08	-0.23	0.16**	0.03
<i>Emotional & Behavioral Strengths (BERS-2) – Parent Report</i>						
Interpersonal strength	-0.05	-0.15	0.03	0.07	-0.08	0.48
Intrapersonal strength	-0.02	-0.05	-0.05	-0.14	0.03	0.77
School functioning	0.03	0.07	0.07	0.10	-0.04	0.82
Affective strength	-0.07	-0.19	0.02	0.05	-0.09	0.45
Family involvement	-0.07	-0.22	-0.11	-0.25	0.04	0.78
<i>Problem Behaviors (ABCL) – Parent report</i>						
Aggressive behavior	0.03	0.11	0.05	0.21	-0.02	0.73
Rule-breaking behavior	0.03	0.14	0.02	0.12	0.01	0.92
Social problems	0.04	0.13	0.16**	0.74	-0.13*	0.07
Attention problems	0.03	0.10	0.04	0.11	-0.01	0.91
<i>Academic performance – Archival Data</i>						
ELA Test Scores	0.00	0.00	0.12	0.13	-0.12	0.24
Mathematics Test Scores	-0.06	-0.07	-0.14	-0.14	0.07	0.50

Notes: Data are regression-adjusted using multilevel regression models to account for differences in baseline characteristics and study design characteristics. Effect sizes were calculated by dividing impact estimates by the control group standard deviation of the outcome variable

* Significantly different from zero at the 0.10 level, two-tailed test.

** Significantly different from zero at the 0.05 level, two-tailed test.

Source: Baseline and Year 1 teacher- and parent-reported BERS-2/ACBL checklist data, district archival records, and teacher rosters.

Summary of Impact Findings

This chapter reported on the estimated impacts of *Tribes* on the classroom environment, teacher practices, and student protective factors against violence and disruptive and disorderly behavior. The results presented provide little evidence that *Tribes* impacted teacher reports about the classroom environment or instructional practices. For the overall sample, none of the estimated impacts on teacher survey measures were statistically or substantively significant. For the outcomes based on classroom observations, however, the analyses indicated that there were statistically significant impacts on the classroom environment. *Tribes* classrooms received higher observer ratings than control classrooms on opportunities for small group work, collaboration, and reflection than control classrooms. Moreover, observer ratings of student engagement ($p < .10$) and student sharing ($p < .10$) were higher in *Tribes* classrooms than in control classrooms, although these differences were not statistically significant at conventional levels. Overall, the results for classroom observation outcomes suggest that *Tribes* impacted the classroom environment and student classroom behavior in ways consistent with the *Tribes* model. Compared to the control group, *Tribes* classrooms manifested more opportunities for small group work, student collaboration, and student reflection; and students in *Tribes* classrooms appeared to be more engaged and exhibited more sharing behavior. Such impacts, however, were not found for the teacher survey outcomes.

Did *Tribes* improve students' emotional and behavioral strengths and reduce student aggression and other problem behavior? Overall, the impact evaluation presents a mixed picture of the effects of *Tribes* on student outcomes, with beneficial effects observed for some outcomes and students and detrimental effects observed for others. For the overall sample, *Tribes* appeared to have more beneficial impacts for boys and more detrimental impacts for girls. Boys in *Tribes* classrooms exhibited higher scores than those in control classrooms on teacher reports of intrapersonal and affective strengths and parent reports of intrapersonal strengths. Boys also had lower scores on parent reports of rule-breaking behavior. But for the grade 1-2 sample, *Tribes* impact on boys' problem behavior differed according to whether the teacher or parent was reporting about the behavior. *Tribes* increased boys' aggressive and rule-breaking behavior according to teachers, but decreased parent-reported rule-breaking behavior. These conflicting results are consistent with the notion that *Tribes* may have provided more opportunities for students, particularly boys, to demonstrate aggressive and rule-breaking behavior in *Tribes* classrooms, but not in other contexts. For the grade 3-4 sample, boys in *Tribes* classrooms exhibited higher scores than those in control classrooms on teacher reports of interpersonal

strengths, intrapersonal strengths, and school functioning. According to teachers, they also demonstrated lower levels of aggressive and rule-breaking behavior, and fewer social and attention problems.

Few significant impacts of *Tribes* were detected for girls, with a deleterious effect being most consistent. For the grade 1-4 sample, girls in *Tribes* classrooms exhibited substantially lower test scores than girls in control classrooms in English language arts and mathematics. We are unsure why *Tribes* would be associated with declines in academic performance, particularly for girls only, although we speculate that the transition to a *Tribes*-oriented classroom could be associated with a disruption in classroom management practices, and such a disruption could have adverse consequences for some students' performance. It is also possible that the organization of students into small groups with mixed levels of academic performance and behavior problems could have been associated with reductions in school performance for girls. Subgroup results were consistent with this second possibility, as the deleterious impacts of *Tribes* on test scores was only noticeable for girls with medium and high levels of school functioning at baseline. Not all the estimated impacts of *Tribes* were negative for girls, however. For the grade 1-2 sample, *Tribes* increased girls' scores on the parent-reported measures of emotional and behavioral strengths.

Additional analyses suggested that *Tribes* had detrimental impacts for students with high levels of academic and behavioral risk on teacher-reported problem behaviors in grades 1-2, but beneficial impacts for such students in grades 3-4. *Tribes* also had beneficial impacts teacher reports of emotional and behavioral strengths for students with high levels of behavioral risk in grades 3-4.

Little evidence was provided that *Tribes* impacted the interview measures of student judgments about conflict resolution strategies. And little evidence was provided that *Tribes* had sustained impacts on student outcomes six months after leaving a *Tribes* classroom.

Chapter VI: Summary of Findings

This study was designed to examine the impact of *Tribes*—a universal prevention strategy emphasizing the fostering of resilience and pro-social behaviors in children – on classroom environments, student emotional and behavioral strengths and problem behaviors, and student academic achievement.

Overall, results on the impact of *Tribes* on classroom environments were mixed. On the one hand, none of the estimated impacts on teacher survey measures of instructional practices were statistically or substantively significant. On the other hand, outcomes measured by classroom observations indicated that *Tribes* impacted classroom environment in ways consistent with the *Tribes* model. Since observations were conducted by evaluation staff who were “blinded” to experimental condition, this suggests that while teachers may be able to implement the key components of the model (when observed), using these practices consistently and integrating them into their daily routines over the academic year may have been challenging, at least as measured by recall via teacher surveys. This is consistent with the developer’s observation that integrating *Tribes* practices into one’s regular curriculum is a common challenge for teachers. One implication is that more time for coaching or follow-up training may need to be built into the program to increase consistency in practice and fidelity to the model.

The limited evidence of impact on classroom environment and instructional practices may also be related to changing pedagogical trends. While an emphasis on positive student behaviors and student centered teaching practices may have been new and innovative when *Tribes* was developed 30 years ago, that is no longer the case. Small group, hand’s on activities and cooperative learning, for example, are more common and part of mainstream practice than in the past. One implication for the program and research is to more clearly delineate *Tribes*-specific practices and the value-added to classrooms.

Overall, *Tribes* did have an impact on student emotional and behavioral strengths, though it is limited, and different for the students across the two grade groups. For the overall sample, we found significant impacts on intrapersonal strengths, and parents of students in *Tribes* classrooms reported greater family involvement. But the results were inconsistent across different grades. For grades 1-2 (study A), parents of children in *Tribes* classrooms reported significantly higher levels on 4 of 5 measures of emotional and behavioral strengths than parents of children in control classrooms. No impacts, however, were found for the corresponding teacher checklist ratings of students’ behavior. For grades 3-4 (study B), the opposite is true, with impacts in the classroom

context (teachers' ratings indicate statistically significant and positive impacts on interpersonal strengths and school functioning), but no corresponding impacts when looking at the parent checklist ratings. When impacts for each sub-study are examined by gender, the beneficial impacts on emotional and behavioral strengths are equally shared by boys and girls in the grade 1-2 sample, but impacts are only significant for grade 3-4 boys in the school context.

With respect to reducing aggression and problem behavior, the results of the impact evaluation were also mixed. For the grade 1-2 sample, one surprising finding was that *Tribes* increased boys' aggressive and rule-breaking behavior according to teachers, but decreased parent-reported rule-breaking behavior. But for the grade 3-4 sample, the pattern of impacts, though only approaching significance, pointed to lower levels of aggressive and rule breaking behavior, and fewer social and attention problems among boys in *Tribes* classrooms than among those in control classrooms. But no significant impacts on problem behaviors were reported by parents. These differences across samples for problem behaviors on the one hand, and conflicting results for the grade 1-2 sample between teacher and parent reports are consistent with the notion that *Tribes* may provide more opportunities for 1st and 2nd grade students, particularly boys, to demonstrate aggressive and rule-breaking behavior in *Tribes* classrooms, but not in other contexts. Findings also point to possible developmental differences in *Tribes*' impact.

No corresponding impacts on behavioral outcomes in either sub-study sample were found for girls. However, perhaps the most puzzling finding was the negative impact on academic performance for girls, especially on English Language Arts (ELA) test scores. We speculate that since tests were administered at the same point as teachers were learning to use *Tribes* in their classrooms, the attention towards *Tribes* may have affected instructional time in a way that may have led to adverse consequences for girls. Another possibility is that the organization of students into small, mixed-ability groups may be associated with reductions in school performance for girls.

Finally, analysis of the sustained impacts of *Tribes* revealed only one significant outcome (out of 19)—teacher reports of interpersonal strengths were higher for students who were in *Tribes* classrooms during the previous academic year than was the case for students who were in control classrooms. However, with only one out of 19 impacts found to be statistically significant, it is possible that this observed difference is due to chance.

Failure to detect stronger, more consistent impacts could have been due to weak implementation of the program or methodological limitations of this study. Participating teachers – whether treatment or control – had a high degree of familiarity with, and prior exposure to

Tribes either directly (using an older version), or through working with other teachers trained in *Tribes*.

The program's developers would argue that their program is best implemented as a school-wide or district-wide initiative. Thus, classroom implementation as conducted in this study may have hindered effective and swifter implementation of certain *Tribes* practices, such as effective cooperative learning groups, by limiting the organizational supports typically available to teachers. That is, the "culture" to support the program (i.e., sharing) may have been limited due to the randomization of the program by classroom instead of by school. The lack of exposure to *Tribes*-trained colleagues was particularly exacerbated by the small size of schools, where 3-4 classrooms at the lower grades and 1-2 classrooms at the upper grade were the norm in half of the schools in the sample. This meant that treatment teachers may have had, at most, one colleague at their grade level with whom to learn and share their experience with *Tribes*.

The randomization by classroom certainly suggests that a more appropriate test of *Tribes* could come from a school-based randomized study in which the entire elementary school in the treatment group adopts *Tribes*. Such a study is being conducted in Canada, focused on bullying, and should shed light on whether having an entire school organized around the program leads to stronger and more consistent effects.

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Appendix A: Teacher Survey

TRIBES TEACHER SURVEY SPRING 2009

Instructions: Please read each question and write in or circle your answer.

BACKGROUND

AFFIX LABEL HERE

1. Including the current school year (2008-2009), how many years have you been a teacher?

_____ Years

2. Including the current school year (2008-2009), how many years have you taught at your current school?

_____ Years

3. Do you have an elementary teaching credential?

- (A) Yes
 (B) No
 (C) Emergency
 (D) Other: _____

4. What is your grade level assignment this school year? (Mark all that apply.)

(E) (F) (G) (H) (I) (J) Other: _____

5. Including the current school year (2008-2009), how many years have you taught at this grade level?

_____ Years

6. Have you been at this school since September 2008?

Yes (F)
No (G)

6a. If not, when did you start? _____

1

TEACHER_STUDY_ID



SCHOOL AS A WORKPLACE

7. Does your school have one or more of the following schoolwide violence prevention programs?
 Circle "Yes" for the programs that apply. For each program circled "Yes" please rate how closely you are able to follow this with your students.

Schoolwide Violence Prevention Program	If yes, please rate →		How closely are you able to follow program?				
			Not at All		Somewhat Closely		Very Closely
a. Second Step	No	Yes	(A)	(B)	(C)	(D)	(E)
b. Too Good for Violence	No	Yes	(A)	(B)	(C)	(D)	(E)
c. CHAMPs (Conversation, Help, Activity, Movement, Participation)	No	Yes	(A)	(B)	(C)	(D)	(E)
d. Caring School Communities	No	Yes	(A)	(B)	(C)	(D)	(E)
e. Other: _____	No	Yes	(A)	(B)	(C)	(D)	(E)

8. Please circle whether or not your school has the following types of schoolwide discipline policies.
 Circle "Yes" for the programs that apply. For each program circled "Yes" please rate how closely you are able to follow this with your students.

My school has a schoolwide discipline policy...	If yes, please rate →		How closely are you able to follow program?				
			Not at All		Somewhat Closely		Very Closely
a. developed by the district	No	Yes	(A)	(B)	(C)	(D)	(E)
b. developed by the school	No	Yes	(A)	(B)	(C)	(D)	(E)

9. This school year, how often have you had conversations with colleagues about:

	Not at All	Less than once a month	2 or 3 times a month	Once or twice a week	Almost daily
a. the goals of this school	(A)	(B)	(C)	(D)	(E)
b. development of a new curriculum	(A)	(B)	(C)	(D)	(E)
c. managing classroom behavior	(A)	(B)	(C)	(D)	(E)
d. what helps students learn best	(A)	(B)	(C)	(D)	(E)



STUDENTS IN YOUR CLASS

10. How much do you disagree or agree with the following:

<i>Most students in this class...</i>	Strongly Disagree	Disagree	Agree	Strongly Agree
a. interrupt others when they are speaking.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
b. participate in setting goals for the group.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
c. work together in small learning groups.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
d. have a hard time taking turns as leaders.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
e. demonstrate collaborative skills (such as listening, solving problems creatively, or working together on tasks).	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
f. share responsibility in groups.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
g. have a hard time working together successfully to complete tasks.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
h. help each other learn.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
i. like to put others down.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
j. just look out for themselves.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
k. treat each other with respect.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
l. don't really care about each other.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D

EDUCATIONAL PRACTICE AND BELIEFS

11. Please respond to the following questions:

<i>How much can you do to...</i>	Nothing	Very Little	Some	Quite a Bit	A Great Deal
a. control disruptive behavior in the classroom?	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
b. motivate students who show low interest in school work?	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
c. get students to believe they can do well in school work?	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
d. help students value learning?	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E



12. How often do you create the following opportunities in the curriculum?

<i>I create opportunities in my classroom for students to...</i>	In All my lessons	In Most lessons	In Some lessons	In a Few Lessons	Never
a. work collaboratively.	A	B	C	D	E
b. recognize each other's talents and contributions.	A	B	C	D	E
c. respect each other's right to choose what they share.	A	B	C	D	E
d. listen to how others feel.	A	B	C	D	E
e. provide opportunities for students to decide about classroom activities.	A	B	C	D	E
f. respect people's differences.	A	B	C	D	E
g. treat boys and girls equitably.	A	B	C	D	E
h. treat all students fairly.	A	B	C	D	E
i. celebrate achievements.	A	B	C	D	E
j. share what they have learned with others.	A	B	C	D	E

13. How often do you create the following opportunities for student reflection?

<i>I create regular opportunities for students to think about...</i>	In All my lessons	In Most lessons	In Some lessons	In a Few Lessons	Never
a. what/how much they have learned academically.	A	B	C	D	E
b. improvements that can be made in their work.	A	B	C	D	E
c. how well they work together.	A	B	C	D	E
d. what they have learned about themselves.	A	B	C	D	E



14. How often do you do the following things to support student learning while teaching?

	In All my Lessons	In Most Lessons	In Some Lessons	In a Few Lessons	Never
a. integrate multiple intelligence strategies to teach academic material	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
b. create opportunities for students' creative expression (i.e., art, music, storytelling, drama, creative writing)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
c. relate subject matter to students' experience and interest.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
d. lecture to the whole class	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
e. use instructional strategies designed to build upon the experiences/perspective of all students	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
f. have the class explore academic material through group inquiry	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
g. incorporate hands-on exploration in small groups	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
h. provide opportunities for students to create together while applying concepts	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
i. assign students a wide range of performance-based tasks and activities to evaluate student work (e.g., portfolios, presentations, journals)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E

GROUP DYNAMICS (WHOLE CLASS AND SMALL GROUP)

15. How often do you use cooperative learning groups in the following areas?

<i>I use cooperative learning groups in...</i>	Never	Really	Sometimes	Often	Always
a. literacy instruction.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
b. mathematics.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
c. social studies.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
d. science.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
e. non-academic subjects such as art, music, or P.E.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E



16. How often do you do the following in small groups in your classroom?

<i>In my classroom, I...</i>	In All my lessons	In Most lessons	In Some lessons	In a Few Lessons	Never
a. teach students empathy for others.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
b. ensure every student has a chance to participate equally.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
c. build a sense of belonging in the group.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
d. create opportunities to increase caring relationships among students.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
e. provide opportunities for students to decide about classroom activities.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
f. engage the class and small groups in mutual problem-solving.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
g. encourage respect for people's differences.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
h. respond to and treat boys and girls equitably.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
i. treat all students fairly.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
j. celebrate achievements.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
k. provide students with frequent opportunities to share what they have learned with others.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E

TRIBES PROFESSIONAL DEVELOPMENT

The Tribes Program (also known as Tribes Learning Communities or Tribes TLC) is a universal prevention program that emphasizes fostering resiliency in children. The program was developed by CenterSource Systems. It is delivered class-wide, with children organized into smaller learning groups (i.e., "tribes") and teachers trained to facilitate a nurturing classroom climate. The following questions ask whether you have been trained to use Tribes or have used it in your classroom.

17. I have used Tribes in my classroom during the 2008/09 academic year.

Yes No

18. I have used Tribes in my classroom prior to the 2008/09 academic year.

Yes No



19. I have worked with colleagues who have participated in Tribes training.

- Yes No

20. I have been taught how to use Tribes by colleagues who have participated in Tribes training.

- Yes No

21. I have received Tribes training from CenterSource Systems staff (developer of Tribes.)

- Yes No Don't know

IF YOU HAVE EVER USED TRIBES IN YOUR CLASSROOM, please answer questions 21-24.

IF YOU HAVE NEVER USED TRIBES, (i.e., you answered "no" to questions 15 and 17), you do not need to answer the remaining questions. PLEASE REMOVE THE LABEL WITH YOUR NAME ON IT FROM THE FIRST PAGE OF THE SURVEY, AND PLACE THE SURVEY IN THE ENVELOPE PROVIDED. THANK YOU FOR TAKING THE SURVEY.

TRIBES THE PROGRAM

22. How often do you use classroom time to directly teach the following Tribes components to your students?

<i>Tribes Component</i>	We don't do this	Once a week	Twice a week	3-4 times a week	Once per day	Throughout the day
a. Community agreements (i.e., attentive listening, no put-downs, mutual respect, right to pass)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Tribes group development process (i.e., inclusion, influence, community)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Community circle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Pairs, triads, and small groupings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Collaborative group skills (e.g., working together, thinking constructively, assessing improvement)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Reflection on content, social and personal learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Appreciations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



23. Did you specifically teach the Tribes TLC agreements to your students this year?

- Yes No
Ⓜ Ⓝ

23a. If yes, about how many *minutes per week* did you spend teaching or reviewing them:

- during the first month that you taught them? _____ minutes
- during the past month? _____ minutes

COMMUNITY CIRCLES

24. On average, from April to May 2009, how often did your students participate in community circle?

- | | | | | | |
|------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| We don't do this in my class | Once a week | Twice a week | 3-4 times a week | Once per day | Throughout the day |
| <input type="radio"/> Ⓜ | <input type="radio"/> Ⓝ | <input type="radio"/> Ⓞ | <input type="radio"/> Ⓟ | <input type="radio"/> Ⓠ | <input type="radio"/> Ⓡ |

25. What do you use a community circle for on a typical day? (Mark all that apply)

- Ⓜ We don't do this in my class _____
- Ⓝ Community concern _____
- Ⓞ Focus the class _____
- Ⓟ Lay groundwork for the day's lessons _____
- Ⓠ Celebration _____
- Ⓡ Introduce or practice Tribes concepts, agreements and strategies _____
- Ⓢ Other _____

26. On average, how long do your community circles typically last? Please enter a specific number of MINUTES ONLY.
_____ minutes

THANK YOU FOR PARTICIPATING!

Please return your completed questionnaire in the enclosed envelope.

WestEd
Attn: Jo Ann Izu
300 Lakeside Drive, 25th Floor
Oakland, California 94612-3534
877.938.3400, ext. 4230
jizu@wested.org



Teacher's Report Form

Directions: This scale contains a series of statements that are used to rate a student's behaviors and emotions in a positive way. Read each statement and mark the number that corresponds to the rating that best describes the student's behavior over the past 3 months.

Rate all items by the following criteria:

0 = Not at all like this student 1 = Not much like this student 2 = Like this student 3 = Very much like this student

1) Accepts "no" for an answer	0 1 2 3	22) Identifies own feelings	0 1 2 3
2) Accepts a loss	0 1 2 3	23) Identifies personal strengths	0 1 2 3
3) Accepts criticism	0 1 2 3	24) Is enthusiastic about life	0 1 2 3
4) Accepts responsibility for own actions	0 1 2 3	25) Is kind toward others	0 1 2 3
5) Accepts the closeness and intimacy of others	0 1 2 3	26) Is popular with peers	0 1 2 3
6) Acknowledges painful feelings	0 1 2 3	27) Is self-confident	0 1 2 3
7) Admits mistakes	0 1 2 3	28) Listens to others	0 1 2 3
8) Apologizes to others when wrong	0 1 2 3	29) Loses a game gracefully	0 1 2 3
9) Asks for help	0 1 2 3	30) Pays attention in class	0 1 2 3
10) Attends school regularly	0 1 2 3	31) Reacts to disappointments in a calm manner	0 1 2 3
11) Completes a task on first request	0 1 2 3	32) Reads at or a above grade level	0 1 2 3
12) Completes homework regularly	0 1 2 3	33) Requests support from peers and friends	0 1 2 3
13) Completes school tasks on time	0 1 2 3	34) Respects the rights of others	0 1 2 3
14) Computes math problems at or a above grade level	0 1 2 3	35) Shares with others	0 1 2 3
15) Considers consequences of own behavior	0 1 2 3	36) Shows concern for the feelings of others	0 1 2 3
16) Demonstrates a sense of humor	0 1 2 3	37) Smiles often	0 1 2 3
17) Demonstrates age-appropriate hygiene skills	0 1 2 3	38) Studies for tests	0 1 2 3
18) Discusses problems with others	0 1 2 3	39) Talks about the positive aspects of life	0 1 2 3
19) Enjoys a hobby	0 1 2 3	40) Uses anger management skills	0 1 2 3
20) Expresses affection for others	0 1 2 3	41) Uses appropriate language	0 1 2 3
21) Expresses remorse for behavior that hurts or upsets others	0 1 2 3	42) Uses note-taking and listening skills in school	0 1 2 3



Teacher's Report Form

43) During the past year, how many times have you ever referred this student out of the classroom (e.g. to a counselor, principal, etc.) for disruptive or anti-social behavior? Specifically, we are referring to behavior that does not warrant formal suspension, expulsion, or police intervention. If more than 9 times bubble the 10.

- 0 1 2 3 4 5 6 7 8 9 10

44) If you answered YES to question 43, please bubble all that apply.

- | | |
|---|--|
| <input type="checkbox"/> A) Rule Breaking (e.g. chewing gum, shouting out) | <input type="checkbox"/> F) Gang activity (e.g. wearing colors, graffiti) |
| <input type="checkbox"/> B) Dishonest behavior (e.g. lying, stealing, cheating) | <input type="checkbox"/> G) Disruptive/Acting Out (e.g. rough-housing) |
| <input type="checkbox"/> C) Harassment/Intimidation (e.g. bullying) | <input type="checkbox"/> H) Verbal aggression (e.g. screaming, obscene language) |
| <input type="checkbox"/> D) Defiance | <input type="checkbox"/> I) Physical Aggression (e.g. hitting, pushing) |
| <input type="checkbox"/> E) Disrespect | <input type="checkbox"/> J) Other (describe) _____ |

Directions: Below is a list of items that describes students. For each item that describes the student now or within the past 2 months, please fill in bubble number 2 if the item is very true or often true of the student. Fill in bubble 1 if the item is somewhat or sometimes true of the student. If the item is not true of the student, fill in bubble 0.

0 = Not True (as far as you know) 1 = Somewhat or Sometimes True 2 = Very True or Often True

45) Acts too young for his/her age	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	59) Demands a lot of attention	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
46) Hums or makes other odd noises in class	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	60) Destroys his/her own things	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
47) Argues a lot	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	61) Destroys property belonging to others	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
48) Fails to finish things he/she starts	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	62) Difficulty following directions	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
49) Defiant, talks back to staff	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	63) Disobedient at school	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
50) Bragging, boasting	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	64) Disturbs other students	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
51) Can't concentrate, can't pay attention for long	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	65) Doesn't get along with other students	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
52) Can't sit still, restless, or hyperactive	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	66) Doesn't seem to feel guilty after misbehaving	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
53) Clings to adults or too dependent	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	67) Easily jealous	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
54) Complains of loneliness	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	68) Breaks school rules	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
55) Confused or seems to be in a fog	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	69) Feels others are out to get him/her	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
56) Fidgets	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	70) Gets hurt a lot, accident-prone	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
57) Cruelty, bullying, or meanness to others	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	71) Gets in many fights	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
58) Daydreams or gets lost in his/her thoughts	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	72) Gets teased a lot	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2



Teacher's Report Form

Directions: Below is a list of items that describes students. For each item that describes the student *now or within the past 2 months*, please fill in bubble number 2 if the item is *very true or often true* of the student. Fill in bubble 1 if the item is *somewhat or sometimes true* of the student. If the item is *not true* of the student, fill in bubble 0.

0 = Not True (as far as you know)

1 = Somewhat or Sometimes True

2 = Very True or Often True

73) Hangs around with others who get in trouble	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	92) Inattentive or easily distracted	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
74) Impulsive or acts without thinking	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	93) Speech problem (describe):	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
75) Lying or cheating	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	_____	
76) Not liked by other students	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	94) Stares blankly	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
77) Has difficulty learning	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	95) Stalks	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
78) Talks out of turn	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	96) Stubborn, sullen, or irritable	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
79) Physically attacks people	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	97) Sudden changes in mood or feelings	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
80) Apathetic or unmotivated	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	98) Sulkis a lot	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
81) Poor school work	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	99) Suspicious	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
82) Poorly coordinated or clumsy	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	100) Swearing or obscene language	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
83) Prefers being with older children or youths	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	101) Underachieving, not working up to potential	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
84) Prefers being with younger children	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	102) Talks too much	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
85) Disrupts class discipline	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	103) Teases a lot	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
86) Screams a lot	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	104) Temper tantrums or hot temper	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
87) Messy work	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	105) Threatens people	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
88) Behaves irresponsibly (describe):	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	106) Tardy to school or class	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
_____		107) Fails to carry out assigned tasks	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
89) Showing off or clowning	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	108) Tardiness or unexplained absence	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
90) Explosive and unpredictable behavior	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	109) Usually lonely	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
91) Demands must be met immediately, easily frustrated	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	110) Whining	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2

Thank you for taking the time to complete this survey!

PLEASE REMOVE THE LABEL FROM THE FRONT OF THIS FORM.



Appendix C: Parent Report Form

PARENT'S REPORT FORM

As part of a study to evaluate Tribes Learning Communities you are invited to complete this survey for your child listed on this form. Remember that you only have to answer the survey questions that you want to answer, and you may stop taking it at any time. Your answers will help us to better understand students' behaviors and improve the programs and services offered. Once you've completed the survey please remove the label with your child's name from the form, to ensure confidentiality. Thank you for taking the time to participate in this important study.

Labeling Directions :

Please answer all items, fill in bubbles in dark pencil, and print.

Like this: Not like this:

A1) TODAY'S DATE: _____ / _____ / _____
mm dd yyyy

A2) THIS CHILD'S BIRTHDATE: _____ / _____ / _____
mm dd yyyy

A3) YOUR RELATION TO THIS CHILD

- A Biological Parent
- B Step Parent
- C Grandparent
- D Adoptive Parent
- E Foster Parent
- F Other (specify) _____

A4) WHAT IS THE HIGHEST YEAR OF SCHOOL YOU COMPLETED?

- A 8th grade or less
- B Some high school (but did not graduate)
- C High school equivalency (GED)
- D High school graduate
- E Vocational, trade, or business school after completing or leaving high school
- F Some college (but did not receive a degree)
- G Associate degree (AA or other 2-year degree)
- H Bachelor's degree
- I Post-graduate education or degree
- J Other (Specify) _____



A5) YOUR GENDER

- F Female
- M Male

A6) CHILD'S GENDER

- F Female
- M Male

A7) NOT COUNTING THIS CHILD, HOW MANY OTHER CHILDREN UNDER 18 YEARS OF AGE LIVE IN YOUR HOUSEHOLD? Include brothers, sisters, cousins, friends, etc. who live with your child on a regular basis.

- 0 1 2 3 4 5 6 7 8 9

A8) HOW MANY OF THESE CHILDREN ARE OLDER THAN THIS CHILD?

Older Boys

- 0 1 2 3 4 5 6 7 8 9

Older Girls

- 0 1 2 3 4 5 6 7 8 9

A9) HOW MANY OF THESE CHILDREN ARE YOUNGER THAN THIS CHILD?

Younger Boys

- 0 1 2 3 4 5 6 7 8 9

Younger Girls

- 0 1 2 3 4 5 6 7 8 9

Parent's Report Form

Directions: This scale contains a series of statements that are used to rate your child's behaviors and emotions in a positive way. Read each statement and mark the number that corresponds to the rating that best describes your child's behavior over the past 3 months.

Rate all items by the following criteria:

0 = Not at all like your child 1 = Not much like your child 2 = Like your child 3 = Very much like your child

1) Accepts "no" for an answer	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	25) Identifies own feelings	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
2) Accepts a loss	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	26) Identifies personal strengths	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
3) Accepts criticism	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	27) Interacts positively with parents	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
4) Accepts responsibility for own actions	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	28) Is enthusiastic about life	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
5) Accepts the closeness and intimacy of others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	29) Is kind toward others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
6) Acknowledges painful feelings	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	30) Is optimistic about future	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
7) Actively plans for his or her future	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	31) Is popular with peers	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
8) Admits mistakes	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	32) Is self-confident	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
9) Apologizes to others when wrong	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	33) Listens to others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
10) Asks for help	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	34) Loses a game gracefully	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
11) Can name one career or life goal	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	35) Maintains positive family relationships	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
12) Communicates with parents about behavior at home	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	36) Participates in community activities	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
13) Completes homework regularly	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	37) Participates in family activities	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
14) Complies with rules at home	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	38) Participates in religious activities	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
15) Considers consequences of own behavior	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	39) Reacts to disappointments in a calm manner	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
16) Demonstrates a sense of belonging to a family	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	40) Requests support from peers and friends	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
17) Demonstrates a sense of humor	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	41) Respects the rights of others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
18) Demonstrates age-appropriate hygiene skills	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	42) Shares with others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
19) Discusses problems with others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	43) Shows concern for the feelings of others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
20) Enjoys a hobby	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	44) Smiles often	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
21) Expresses affection for others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	45) Talks about the positive aspects of life	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
22) Expresses remorse for behavior that hurts or upsets others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	46) Trusts a significant person with his or her life	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
23) Has a specific vocational skill	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	47) Uses anger management skills	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
24) Has identified career goals	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	48) Uses appropriate language	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
		49) Interacts positively with siblings (leave blank if not applicable)	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3

Parent's Report Form

- 50) About how many close friends does your child have? (Do not include brothers & sisters and other children who live in your house)
- A None
 B 1
 C 2 or 3
 D 4 or more
 E Don't know
-
- 51) About how many times a week does your child do things with any friends outside of regular school hours? (Do not include brothers & sisters and other children who live in your house)
- A Less than 1 time
 B 1 or 2 times
 C 3 or more times
 D Don't know
-
- 52) Does your child receive special education or remedial services or attend a special class or special school?
- Y Yes
 N No
 D Don't know

Directions: Below is a list of items that describes children. For each item that describes your child *now* or *within the past 2 months*, please fill in bubble number **2** if the item is *very true* or *often true* of your child. Fill in bubble **1** if the item is *somewhat* or *sometimes true* of your child. If the item is *not true* of your child, fill in bubble **0**.

0 = Not True (as far as you know)	1 = Somewhat or Sometimes True	2 = Very True or Often True	
53) Acts too young for his/her age	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	62) Daydreams or gets lost in his/her thoughts	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
54) Argues a lot	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	63) Demands a lot of attention	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
55) Falls to finish things he/she starts	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	64) Destroys his/her own things	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
56) Can't concentrate, can't pay attention for long	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	65) Destroys things belonging to his/her family or others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
57) Can't sit still, restless, or hyperactive	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	66) Disobedient at home	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
58) Clings to adults or too dependent	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	67) Disobedient at school	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
59) Complains of loneliness	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	68) Doesn't get along with other children	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
60) Confused or seems to be in a fog	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	69) Doesn't seem to feel guilty after misbehaving	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
61) Cruelty, bullying, or meanness to others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	70) Easily jealous	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2

Parent's Report Form

Directions: Below is a list of items that describes children. For each item that describes the child *now or within the past 2 months*, please fill in bubble number 2 if the item is *very true or often true* of the child. Fill in bubble 1 if the item is *somewhat or sometimes true* of the child. If the item is *not true* of the child, fill in bubble 0.

0 = Not True (as far as you know)

1 = Somewhat or Sometimes True

2 = Very True or Often True

71) Breaks rules at home, school, or elsewhere	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	88) Speech problem (describe):	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
72) Feels others are out to get him/her	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	_____	
73) Gets hurt a lot, accident-prone	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	89) Stares blankly	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
74) Gets in many fights	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	90) Steals at home	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
75) Gets teased a lot	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	91) Steals at school	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
76) Hangs around with others who get in trouble	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	92) Stubborn, sulky, or irritable	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
77) Impulsive or acts without thinking	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	93) Sudden changes in mood or feelings	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
78) Lying or cheating	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	94) Sulkis a lot	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
79) Not liked by other kids	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	95) Suspicious	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
80) Physically attacks people	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	96) Swearing or obscene language	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
81) Poor school work	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	97) Teases a lot	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
82) Poorly coordinated or clumsy	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	98) Temper tantrums or hot temper	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
83) Prefers being with older kids	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	99) Threatens people	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
84) Prefers being with younger kids	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	100) Truancy, skips school	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
85) Runs away from home	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	101) Usually loud	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
86) Screams a lot	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	102) Vandalism	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
87) Sets fires	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	103) Whining	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
88) Inattentive or easily distracted	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2		

Thank you for taking the time to complete this survey!

PLEASE REMOVE THE LABEL FROM THE FRONT OF THIS FORM.

Appendix D: Classroom Observation Protocol

TRIBES Evaluation Classroom Observation

Name of School: _____

Teacher: _____ Grade: _____ Length of Observation: _____

Date: _____ Observer: _____

The classroom observations will last for approximately 30 minutes. Prior to the visit, teachers are told the observation is of literacy instruction that is typical of the kind of 'regular' classroom lessons they give every day. Use the space after each item to make brief notes about what evidence you saw that caused you to give each rating.

Opportunity to Learn

I. Group Work – Does the teacher provide an opportunity for students to work in groups? Circle one.

a. Small group work (2-4 students) Yes No N/A Appx % of lesson time _____

Evidence:

b. Large group work (5+ students) Yes No N/A Appx % of lesson time _____

Evidence:

c. Whole class work Yes No N/A Appx % of lesson time _____

Evidence:

II. Collaborative Skills – Does the teacher provide an opportunity for students to learn and practice collaborative skills (such as listening, participating, expressing appreciation, valuing diversity, celebrating achievement, working together, sharing property, materials and ideas, showing respect to people and property, taking turns, assuming roles, helping, etc)? Circle one.

Yes No N/A Appx % of lesson time _____

Evidence. List opportunities observed:

Reflective Practice – Does the teacher provide an opportunity for students to reflect on what they have learned from individual, group, or whole class work?

Yes No N/A Appx % of lesson time _____

Evidence:

TRIBES Evaluation Classroom Observation
Name of School: _____

III. **Room Arrangement** – Extent to which the physical arrangement of the room supports students’ opportunity to learn through group work, to learn and practice collaborative skills, and to reflect on what they have learned? Circle one.

1 = Not at all supportive 3 = Somewhat supportive 5 = Very supportive

a. Behavior and other classroom rules posted	1	2	3	4	5
--	---	---	---	---	---

Evidence:

b. Student work on display	1	2	3	4	5
----------------------------	---	---	---	---	---

Evidence:

c. Arrangement of desks/flexibility in desk arrangement	1	2	3	4	5
---	---	---	---	---	---

Evidence:

d. Content work centers (reading corner, science table, math corner, etc.)	1	2	3	4	5
--	---	---	---	---	---

Evidence:

e. Portfolios/journals	1	2	3	4	5
------------------------	---	---	---	---	---

Evidence:

Student Responses

To what extent does the majority of the classroom demonstrate the following behaviors/responses? Circle one.

1 = Not at all demonstrated 3 = Somewhat demonstrated 5 = Well demonstrated

a. Listening attentively to each other and teacher	1	2	3	4	5
--	---	---	---	---	---

Evidence:

b. Participating fully in class, group, and individual activities	1	2	3	4	5
---	---	---	---	---	---

Evidence:

c. Expressing appreciation	1	2	3	4	5
----------------------------	---	---	---	---	---

Evidence:

TRIBES Evaluation Classroom Observation

Name of School: _____

d. Valuing diversity	1	2	3	4	5	No Neg
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Evidence:

e. Celebrating achievement	1	2	3	4	5	No Neg
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Evidence:

f. Working on tasks together	1	2	3	4	5	N/A
-------------------------------------	----------	----------	----------	----------	----------	------------

Evidence:

g. Sharing property and materials	1	2	3	4	5	N/A
--	----------	----------	----------	----------	----------	------------

Evidence:

h. Sharing ideas	1	2	3	4	5
-------------------------	----------	----------	----------	----------	----------

Evidence:

i. Helping	1	2	3	4	5	No Neg
-------------------	----------	----------	----------	----------	----------	---------------

Evidence:

j. Showing respect to people	1	2	3	4	5	No Neg
-------------------------------------	----------	----------	----------	----------	----------	---------------

Evidence:

k. Showing respect to property	1	2	3	4	5	No Neg
---------------------------------------	----------	----------	----------	----------	----------	---------------

Evidence:

l. Taking turns	1	2	3	4	5	N/A
------------------------	----------	----------	----------	----------	----------	------------

Evidence:

TRIBES Evaluation Classroom Observation

Name of School: _____

Post-Observation Teacher Interview

Date: _____ **Time:** _____ **Grade:** _____
Teacher: _____ **Observer:** _____

The Post-Observation Teacher Interview should last approximately 10 minutes, and should be administered within 24 hours of the classroom observation. Although directly after the observation is preferable, you can arrange to talk at recess, lunch, after-school, etc.

- I. Can I ask you a few questions about the lesson I just observed?
 - a. How typical was that lesson of your 'regular' lessons?
 - b. What were your goals for teaching this lesson-
 - I. Academically?
 - II. Socially?
 - c. Did you get everything done in this lesson that you had planned to?
 - d. Can you describe the kind of classroom culture you try to achieve in your classroom?
- II. Was the amount of group activity I saw today common in your classroom?
- III. Do you generally work on students' collaborative skills (listening, participating, expressing appreciation, valuing diversity, celebrating achievement, working together, sharing property, materials and ideas, showing respect to people and property, taking turns, helping, etc.) during lesson time? If yes, do you feel you accomplished that today? Explain.
- IV. Do you think it is important for students to reflect on their individual and group work? If yes, do you feel you accomplished that today?
- V. If you did not see any of the following during your observation or are unclear about the classroom environment, ask: Can you tell me a little bit about your classroom and how it is set up? Ask about:
 - o Behavior and other classroom rules posted
 - o Student work on display

TRIBES Evaluation Classroom Observation
Name of School: _____

- ◊ *Arrangement of desks/flexibility in desk arrangement*

- ◊ *Work centers (reading corner, science table, etc.)*

- ◊ *Portfolios/journals*

VI. Ask about any other remarkable or unclear observations you made.

Appendix E: Student Interview

TRIPES Evaluation Student Interview Protocol

Part I: Preliminary information and confidentiality agreement

INTERVIEWER MAY BEGIN THIS PART OF THE INTERVIEW WHILE WALKING THE CHILD TO THE INTERVIEW ROOM.

Interviewer: HI, (CHILD'S NAME), my name is (INTERVIEWER NAME), I'm so happy to meet you, and I really want to thank you for taking some time to talk to me today. I'm going to be tape recording what we say so I won't forget anything that you tell me, but I won't let anyone from your school or family or friends hear the tape. And, we never tell your teacher or anyone from your school or family or friends what you say to us. If you want to tell someone, that's fine, but we will keep it private. OK?

IF THE STUDENT CONSENTS, TURN ON THE TAPE RECORDER AS SOON AS YOU GET TO THE ROOM. IF THE STUDENT DOES NOT CONSENT, FIND OUT WHAT IS WORRYING HIM OR HER AND ADDRESS THOSE CONCERNS. IF THE STUDENT STILL DOES NOT WANT TO HAVE THE SESSIONS TAPE RECORDED, ESCORT HER OR HIM BACK TO THE CLASSROOM. BE SURE TO THANK THE STUDENT FOR TALKING TO YOU.

Interviewer: I work for a company that tries to help schools be better places for kids to learn and teachers to teach, and we're here at (NAME OF SCHOOL) this week to find out what some students think about helping solve problems that sometimes come up with other students. You know, like sometimes a child might cut in line in the lunchroom, or some children might argue over sharing markers or something. You know, things like that, where children might fight or disagree with each other and have a conflict, and then they have a problem that needs to be solved. Do you know what I mean?

IF THE STUDENT DOES NOT SEEM TO UNDERSTAND THE GENERAL CONCEPT OF CONFLICT RESOLUTION, RESPOND TO HIS OR HER REPLIES WITH OTHER EXAMPLES, IF THE STUDENT WANTS TO RELATE A SIMILAR STORY, LET HIM OR HER DO SO BRIEFLY.

Interviewer: OK, so today, I want to tell you some stories about some students who are having problems getting along. These stories are about things that might sometimes come up in a school like (NAME OF CHILD'S SCHOOL) or in a classroom like yours. And I want to ask you what you think the kids in the stories could do to solve their problems.

These aren't things that have really happened in your class, these are just stories about some kinds of conflicts and problems that kids in a class or school like yours might have.

There's no right or wrong answer, it's just your opinion about what you think the kids could do to solve their problems and stop their conflict. And remember, we won't tell anybody what you say – it's all private.

So, is this something you think you would like to do – give me your opinion about what the kids in the stories could do to solve their problems?

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IF STUDENT SAYS, "NO," ASK WHY HE OR SHE MIGHT NOT WANT TO PARTICIPATE, AND ADDRESS ANY MISCONCEPTIONS OR CONCERNS HE OR SHE MAY HAVE. AFTER ADDRESSING THE STUDENT'S CONCERNS, ASK AGAIN, Is that something you would like to do – give me your opinion about how you think the kids could solve their problems?

IF STUDENT STILL SAYS HE OR SHE DOES NOT WANT TO PARTICIPATE, LET HIM OR HER KNOW THAT THIS IS PERFECTLY FINE AND ESCORT THE STUDENT BACK TO THE CLASSROOM. BE SURE TO THANK HIM OR HER FOR TAKING THE TIME TO TALK TO YOU.

IF STUDENT CONSENTS TO PARTICIPATE, CONTINUE AS FOLLOWS:

Interviewer: Great, I'm really interested in hearing what you think. Before we begin, I want to let you know that if you don't want to answer a question, just let me know and we'll skip that question. Or, if you just want to stop at any time, let me know that, too, and we'll stop, because we want you to have a good and interesting time, OK? Do you have any questions before we begin?

ANSWER QUESTIONS AS NEEDED.

Interviewer: OK, great. Here's the first story:

Part II - Hypothetical Stories

GIVE THE FEMALE VERSION OF THE STORIES TO GIRLS, AND THE MALE VERSION OF THE STORIES TO BOYS. DO NOT MIX GENDERS IN THE STORIES.

EACH CHILD WILL BE ASKED ABOUT TWO STORIES. WHICH STORIES AND THE ORDER OF THE STORIES WILL HAVE BEEN DETERMINED AHEAD OF TIME AND PROVIDED TO YOU. PLEASE INDICATE THE ORDER IN WHICH YOU PRESENTED THE TWO STORIES ON THE INTERVIEW NOTES SHEET.

Interview Tracking Sheet

Name of Interviewer: _____

Pre – or Post-Interview (circle one): Pre Post

Date: _____ Grade: _____

School: _____

Teacher: _____

Student ID #: _____

Student Gender: _____

Start Time: _____

Stop Time: _____

Indicate order of story presentation with a number. Circle Male or Female version:

Story A: _____ Male v. Female v.

Story B: _____ Male v. Female v.

Story C: _____ Male v. Female v.

Story D: _____ Male v. Female v.

Please use the space below and on the back of this page to take notes during the interview.

STORY A – THE SOCCER BALL (15 MINUTES MAXIMUM)

Interviewer: Let's say that two boys/two girls from a classroom like yours at another school were going out to recess at the same time. When they got out to the playground, they both ran over to the ball bin and reached for the soccer ball at the very same time, and they both touched it at the very same time. It was the only soccer ball left in the ball bin.

Both of the boys/girls really wanted the ball, and each boy/girl felt like he/she should get it. The boys/girls began to yell at each other and say, "That's my ball, I got it first!" Then they tried to grab it away from each other and run away with it.

- 1. So, first, I want to ask you, what do you think was the problem or conflict in this story?**
 - REPEAT CHILD'S ANSWER, THEN SAY: Tell me more about that.
 - Are there any other problems/conflicts in this story?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

- 2. Why do you think the boys/girls are having this problem? Why did this happen?**
 - REPEAT CHILD'S ANSWER, THEN SAY: Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

- 3. Do you think it was OK or not OK for the [REPEAT WHAT CHILD SAID WAS THE CONFLICT – E.G. FOR THE KIDS TO BE FIGHTING OVER THE BALL]? PROBE FOR EACH JUDGMENT.**
 - Why do you think that was OK/not OK? Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

- 4. Let's call one girl/boy Girl/Boy A, and the other girl/boy Girl/Boy B. What do you think Girl/Boy A wanted?**
 - Why do you think she/he wanted that? Tell me more about that.
 - Can you think of anything else s/he might have wanted?
 - How do you think she/he felt in this situation? Why do you think she/he felt [WHAT CHILD SAID]?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

- 5. What do you think Girl/Boy B wanted?**
 - Why do you think she/he wanted [WHAT CHILD SAID]? Tell me more about that.
 - Can you think of anything else s/he might have wanted?
 - How do you think she/he felt in this situation? Why do you think she/he felt [WHAT CHILD SAID]?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

- 6. What do you think the boys/girls could do to solve their problem?**
 - How would doing [WHAT CHILD SAID] help to solve the problem?
 - IF STUDENT SAYS, "WORK IT OUT," "TALK ABOUT IT," OR SOMETHING SIMILAR,

ASK: So what do you think they would say to each other? How would that conversation go?

- [PRESENT COUNTERFACTUALS AS NEEDED]
- Do you have anything else to add to what you said?

7. If you had been there, what do you think you could have done to help solve their problem?

- IF CHILD SAYS, "TALK TO THEM," "HELP THEM WORK IT OUT," OR SOMETHING OF THAT NATURE, ASK: So, what would you say to them? How would that conversation go?
- How would [WHAT CHILD SAID] help the kids solve their problem? Tell me more about that.
- [PRESENT COUNTERFACTUALS AS NEEDED] NOTE: IF CHILD SAYS ONE OF THEM COULD PLAY A DIFFERENT SPORT, ASK, "WHAT IF THEY BOTH REALLY, REALLY WANTED TO PLAY SOCCER?"
- Do you have anything to add to what you said?

8. What do you think their classmates could have done to help solve the kids' problem?

- How would [WHAT CHILD SAID] help the kids solve their problem? Tell me more about that.
- What if [WHAT CHILD SAID] wasn't working for these kids? Is there anything else they could do to help solve their problem?
- [PRESENT COUNTERFACTUALS AS NEEDED]
- Do you have anything to add to what you said?

9. Is there anything the children could have done to keep the problem from ever happening in the first place – before they even went outside to play?

- How would that help the problem from ever happening? How would that work? Tell me more about that.
- [PRESENT COUNTERFACTUALS AS NEEDED]
- Do you have anything to add to what you said?

10. You have some really interesting thoughts about all this, [CHILD'S NAME]. Where did you learn about solving problems like these? Tell me more about that.

- Do you know anyone who is a really good problem-solver in situations like these? Why do you think s/he is a good problem-solver? What does that person do to solve problems like these?

NOTE ABOUT SOLUTIONS INCLUDING AN ADULT OR TEACHER: IF THE CHILD RESPONDS AT ANY TIME THAT HE OR SHE WOULD GO GET A TEACHER/ADULT, PROBE AS FOLLOWS:

11. You mentioned that you thought it would be a good idea to go get [ADULT AS CHILD DESCRIBED HIM/HER]. Can you say more about that? How do you think getting a teacher/adult could help them solve their problem? What do you think a teacher/adult would do?

- [PRESENT COUNTERFACTUALS AS NEEDED]
- Do you think that you or another student could do what the teacher/adult would do? Could you or another student solve the problem in the same way as the teacher/adult? Why or why not?

- [PRESENT COUNTERFACTUALS AS NEEDED]

Interviewer: IF THIS IS THE LAST STORY, SAY, Thank you so much, [CHILD'S NAME]. This was really helpful. Do you have any questions you want to ask me? ANSWER CHILD'S QUESTIONS AS NEEDED. OK, I'll take you back to your classroom now.

STORY B – CUTTING IN LINE (15 MINUTES MAXIMUM)

Interviewer: Let's say two boys/two girls from a class like yours at another school were waiting in line to get on the bus to go on a field trip. They were both very excited about going. One boy/girl was at the front of the line, and the other boy/girl was at the middle of the line, behind him/her. The boy/girl in the middle of the line stepped out of line and sneaked up and cut in front of the boy/girl at the front of the line.

The boy/girl at the front said, "Hey I was here first, no cutting!" The boy/girl who took cuts said, "I don't care. I want this place!" Then they began pushing each other out of line and arguing.

- 1. So, first, I want to ask you, what do you think was the problem or conflict in this story?**
 - REPEAT CHILD'S ANSWER, THEN SAY: Tell me more about that.
 - Are there any other problems/conflicts in this story?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

- 2. Why do you think the boys/girls are having this problem? Why did this happen?**
 - REPEAT CHILD'S ANSWER, THEN SAY: Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

- 3. Do you think it was OK or not OK for the [REPEAT WHAT CHILD SAID WAS THE CONFLICT – E.G. FOR THE KIDS TO BE FIGHTING OVER A PLACE IN LINE OR FOR THE KID TO TAKE CUTS? PROBE FOR EACH JUDGMENT – TRY TO TEASE APART THE FACT THAT ONE CHILD CUT IN FRONT OF THE OTHER VS. THEY ENDED UP PUSHING AND ARGUING.**
 - Why do you think that was OK/not OK? Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

- 4. Let's call the child who was first in line Girl/Boy A, and the child who took cuts Girl/Boy B. What do you think Girl/Boy A wanted?**
 - Why do you think she/he wanted that? Tell me more about that.
 - Can you think of anything else s/he might have wanted?
 - How do you think she/he felt in this situation? Why do you think she/he felt [WHAT CHILD SAID]?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

- 5. What do you think Girl/Boy B wanted?**
 - Why do you think she/he wanted [WHAT CHILD SAID]? Tell me more about that.
 - Can you think of anything else s/he might have wanted?
 - How do you think she/he felt in this situation? Why do you think she/he felt [WHAT CHILD SAID]?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

6. What do you think the boys/girls could do to solve their problem?

- How would doing [WHAT CHILD SAID] help to solve the problem?
 - IF STUDENT SAYS, "WORK IT OUT," "TALK ABOUT IT," OR SOMETHING SIMILAR, ASK: So what do you think they would say to each other? How would that conversation go?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?
- 7. If you had been there, what do you think you could have done to help solve their problem?**
- IF CHILD SAYS, "TALK TO THEM," "HELP THEM WORK IT OUT," OR SOMETHING OF THAT NATURE, ASK: So, what would you say to them? How would that conversation go?
 - How would [WHAT CHILD SAID] help the kids solve their problem? Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything to add to what you said?
- 8. What do you think their classmates could have done to help solve the kids' problem?**
- How would [WHAT CHILD SAID] help the kids solve their problem? Tell me more about that.
 - What if [WHAT CHILD SAID] wasn't working for these kids? Is there anything else they could do to help solve their problem?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything to add to what you said?
- 9. Is there anything the children could have done to keep the problem from ever happening in the first place – before they even lined up for the bus?**
- How would that help the problem from ever happening? How would that work? Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything to add to what you said?
- 10. You have some really interesting thoughts about all this, [CHILD'S NAME]. Where did you learn about solving problems like these? Tell me more about that.**
- Do you know anyone who is a really good problem-solver in situations like these? Why do you think s/he is a good problem-solver? What does that person do to solve problems like these?

NOTE ABOUT SOLUTIONS INCLUDING AN ADULT OR TEACHER: IF THE CHILD RESPONDS AT ANY TIME THAT HE OR SHE WOULD GO GET A TEACHER/ADULT, PROBE AS FOLLOWS:

- 11. You mentioned that you thought it would be a good idea to go get [ADULT AS CHILD DESCRIBED HIM/HER]. Can you say more about that? How do you think getting a teacher/adult could help them solve their problem? What do you think a teacher/adult would do?**
- [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you think that you or another student could do what the teacher/adult would do? Could you or another student solve the problem in the same way as the teacher/adult? Why or why not?

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- [PRESENT COUNTERFACTUALS AS NEEDED]

Interviewer: IF THIS IS THE LAST STORY, SAY, Thank you so much, [CHILD'S NAME]. This was really helpful. Do you have any questions you want to ask me? ANSWER CHILD'S QUESTIONS AS NEEDED. OK, I'll take you back to your classroom now.

STORY C – THE PROJECT (15 MINUTES MAXIMUM)

Interviewer: Four children from a classroom like yours at a different school were working together on a group project in their classroom. They were making a book about their favorite animals and where the animals live and what the animals eat. They could use colored markers to draw pictures of their animals for the book pages, and scissors and glue to cut out pictures of their animals from magazines and glue them to the book pages. There was only one box of colored markers for all four boys/girls in the group to use.

One of the boys/girls' favorite animals was a whale, and he/she needed to use lots of blue in his/her drawing. The other three boys/girls also wanted to use the blue marker for their drawings. The first boy/girl would not let them use the marker and said, "I need the blue the most because I have to color lots of water. You have to use the other colors."

The other three boys/girls said, "That's not fair, you're supposed to share the markers," and they began to get angry with the boy/girl who was keeping the blue marker. Soon they all were yelling at each other and trying to grab the blue marker away.

1. **So, first, I want to ask you, what do you think was the problem or conflict in this story?**
 - REPEAT CHILD'S ANSWER, THEN SAY: Tell me more about that.
 - Are there any other problems/conflicts in this story?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

2. **Why do you think the boys/girls are having this problem? Why did this happen?**
 - REPEAT CHILD'S ANSWER, THEN SAY: Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

3. **Do you think it was OK or not OK for the [REPEAT WHAT CHILD SAID WAS THE CONFLICT – E.G. FOR THE CHILD NOT TO SHARE HIS OR HER MARKER VS. THE KIDS TO BE FIGHTING OVER THE MARKER]? PROBE FOR EACH JUDGMENT – TRY TO TEASE APART THE FACT THAT ONE CHILD REFUSED TO SHARE VS. THEY ENDED GRABBING THINGS FROM EACH OTHER AND ARGUING.]**
 - Why do you think that was OK/not OK? Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

4. **Let's call the child who wasn't sharing Girl/Boy A. What do you think Girl/Boy A wanted?**
 - Why do you think she/he wanted that? Tell me more about that.
 - Can you think of anything else s/he might have wanted?
 - How do you think she/he felt in this situation? Why do you think she/he felt [WHAT CHILD SAID]?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?

5. **What do you think the kids in the rest of the group wanted?**
 - Why do you think they wanted [WHAT CHILD SAID]? Tell me more about that.

- Can you think of anything they might have wanted?
 - How do you think they felt in this situation? Why do you think they felt [WHAT CHILD SAID]?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?
- 6. What do you think the boys/girls could do to solve their problem?**
- How would doing [WHAT CHILD SAID] help to solve the problem?
 - IF STUDENT SAYS, "WORK IT OUT," "TALK ABOUT IT," OR SOMETHING SIMILAR, ASK: So what do you think they would say to each other? How would that conversation go?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?
- 7. If you had been there, what do you think you could have done to help solve their problem?**
- IF CHILD SAYS, "TALK TO THEM," "HELP THEM WORK IT OUT," OR SOMETHING OF THAT NATURE, ASK: So, what would you say to them? How would that conversation go?
 - How would [WHAT CHILD SAID] help the kids solve their problem? Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything to add to what you said?
- 8. What do you think their other classmates could have done to help solve the group's problem?**
- How would [WHAT CHILD SAID] help the kids solve their problem? Tell me more about that.
 - What if [WHAT CHILD SAID] wasn't working for these kids? Is there anything else they could do to help solve their problem?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything to add to what you said?
- 9. Is there anything the children could have done to keep the problem from ever happening in the first place – before they even started the activity?**
- How would that help the problem from ever happening? How would that work? Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything to add to what you said?
- 10. You have some really interesting thoughts about all this, [CHILD'S NAME]. Where did you learn about solving problems like these? Tell me more about that.**
- Do you know anyone who is a really good problem-solver in situations like these? Why do you think s/he is a good problem-solver? What does that person do to solve problems like these?

NOTE ABOUT SOLUTIONS INCLUDING AN ADULT OR TEACHER: IF THE CHILD RESPONDS AT ANY TIME THAT HE OR SHE WOULD GO GET A TEACHER/ADULT, PROBE AS FOLLOWS:

- 11. You mentioned that you thought it would be a good idea to go get [ADULT AS CHILD]**
Student Conflict Resolution Interview Protocol – Spring 2008 11

DESCRIBED HIM/HER]. Can you say more about that? How do you think getting a teacher/adult could help them solve their problem? What do you think a teacher/adult would do?

- **[PRESENT COUNTERFACTUALS AS NEEDED]**

- **Do you think that you or another student could do what the teacher/adult would do? Could you or another student solve the problem in the same way as the teacher/adult? Why or why not?**
- **[PRESENT COUNTERFACTUALS AS NEEDED]**

Interviewer: IF THIS IS THE LAST STORY, SAY, Thank you so much, [CHILD'S NAME]. This was really helpful. Do you have any questions you want to ask me? ANSWER CHILD'S QUESTIONS AS NEEDED. OK, I'll take you back to your classroom now.

STORY D – THE COOKIE INCIDENT (15 MINUTES MAXIMUM)

Interviewer: A group of [CHILD'S GRADE] graders was sitting at the lunch table. The mom of one of the boys/girls had put a big, homemade, chocolate chip cookie in his/her lunch that day. The boy/girl sitting across from him/her asked if s/he could have the cookie. The child with the cookie, whose name was John/Marie said, "No, my mom made that for me because I helped her wash the car yesterday. That cookie is my treat for being helpful."

The boy/girl across the table, whose name was Fred/Amy leaned over and grabbed the cookie and took a big bite out of it. John/Marie began to yell and say, "S/he ate my cookie! S/he ate my cookie! That's stealing!" Fred/Amy yelled back at the John/Marie, and said, "Well, I asked you to give me the cookie and you wouldn't!"

1. So, first, I want to ask you, what do you think was the problem or conflict in this story?
 - REPEAT CHILD'S ANSWER, THEN SAY: Tell me more about that.
 - Are there any other problems/conflicts in this story?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?
2. Why do you think the boys/girls are having this problem? Why did this happen?
 - REPEAT CHILD'S ANSWER, THEN SAY: Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?
3. Do you think it was OK or not OK for the [REPEAT WHAT CHILD SAID WAS THE CONFLICT – E.G. FOR THE ONE CHILD TO STEAL THE COOKIE? PROBE FOR EACH JUDGMENT.]
 - Why do you think that was OK/not OK? Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?
4. The child who brought the cookie to school was named John/Marie. What do you think John/Marie wanted?
 - Why do you think John/Marie wanted that? Tell me more about that.
 - Can you think of anything else John/Marie might have wanted?
 - How do you think John/Marie felt in this situation? Why do you think he/she felt [WHAT CHILD SAID]?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?
5. The child who took the cookie was named Fred/Amy. What do you think Fred/Amy wanted?
 - Why do you think Fred/Amy wanted [WHAT CHILD SAID]? Tell me more about that.
 - Can you think of anything else Fred/Amy might have wanted?
 - How do you think Fred/Amy felt in this situation? Why do you think she/he felt [WHAT CHILD SAID]?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?
6. What do you think the boys/girls could do to solve their problem?

- How would doing [WHAT CHILD SAID] help to solve the problem?
 - IF STUDENT SAYS, "WORK IT OUT," "TALK ABOUT IT," OR SOMETHING SIMILAR, ASK: So what do you think they would say to each other? How would that conversation go?
 - How do you think she/he felt in this situation?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything else to add to what you said?
- 7. If you had been there, what do you think you could have done to help solve their problem?**
- IF CHILD SAYS, "TALK TO THEM," "HELP THEM WORK IT OUT," OR SOMETHING OF THAT NATURE, ASK: So, what would you say to them? How would that conversation go?
 - How would [WHAT CHILD SAID] help the kids solve their problem? Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything to add to what you said?
- 8. What do you think their classmates could have done to help solve the kids' problem?**
- How would [WHAT CHILD SAID] help the kids solve their problem? Tell me more about that.
 - What if [WHAT CHILD SAID] wasn't working for these kids? Is there anything else they could do to help solve their problem?
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything to add to what you said?
- 9. Is there anything the children could have done to keep the problem from ever happening in the first place – before they even went into the cafeteria for lunch?**
- How would that help the problem from ever happening? How would that work? Tell me more about that.
 - [PRESENT COUNTERFACTUALS AS NEEDED]
 - Do you have anything to add to what you said?
- 10. You have some really interesting thoughts about all this, [CHILD'S NAME]. Where did you learn about solving problems like these? Tell me more about that.**
- Do you know anyone who is a really good problem-solver in situations like these? Why do you think s/he is a good problem-solver? What does that person do to solve problems like these?

NOTE ABOUT SOLUTIONS INCLUDING AN ADULT OR TEACHER: IF THE CHILD RESPONDS AT ANY TIME THAT HE OR SHE WOULD GO GET A TEACHER/ADULT, PROBE AS FOLLOWS:

- 11. You mentioned that you thought it would be a good idea to go get [ADULT AS CHILD DESCRIBED HIM/HER]. Can you say more about that? How do you think getting a teacher/adult could help them solve their problem? What do you think a teacher/adult would do?**
- [PRESENT COUNTERFACTUALS AS NEEDED]

- Do you think that you or another student could do what the teacher/adult would do? Could you or another student solve the problem in the same way as the teacher/adult? Why or why not?
- [PRESENT COUNTERFACTUALS AS NEEDED]

Interviewer: IF THIS IS THE LAST STORY, SAY, Thank you so much, [CHILD'S NAME]. This was really helpful. Do you have any questions you want to ask me? ANSWER CHILD'S QUESTIONS AS NEEDED. OK, I'll take you back to your classroom now.

Appendix F: Parental Consent Form for Student Interview

Tribes Learning Communities Study

PARENT AND STUDENT CONSENT FOR STUDENT INTERVIEW PARTICIPATION

Nothing negative or bad will happen if you decide not to participate. After checking a box, please sign your name on the "Student Signature" line.

Your parent or guardian should also check the "Yes" or "No" box on their part of the form, and sign on the line that says "Parent/Guardian Signature."

Thank you very much!

Student: Please check the appropriate box below and then sign your name on the Student Signature line.

Yes, I would like to participate in the Tribes Study interviews. I understand that I can change my mind at any time and decide not to participate if I want to.

No, I do not wish to participate in the Tribes Study interviews.

Student Name (Print): _____

Student Signature (try your best!): _____

Parent or Guardian: Please check the appropriate box below and then sign your name on the Parent/Guardian Signature line.

Yes, I give my permission for my child to participate in the Tribes Learning Community Study, Student Interviews.

No, I do not give permission for my child to participate in the Tribes Learning Community Study, Student Interviews.

Parent/Guardian Name (Print): _____

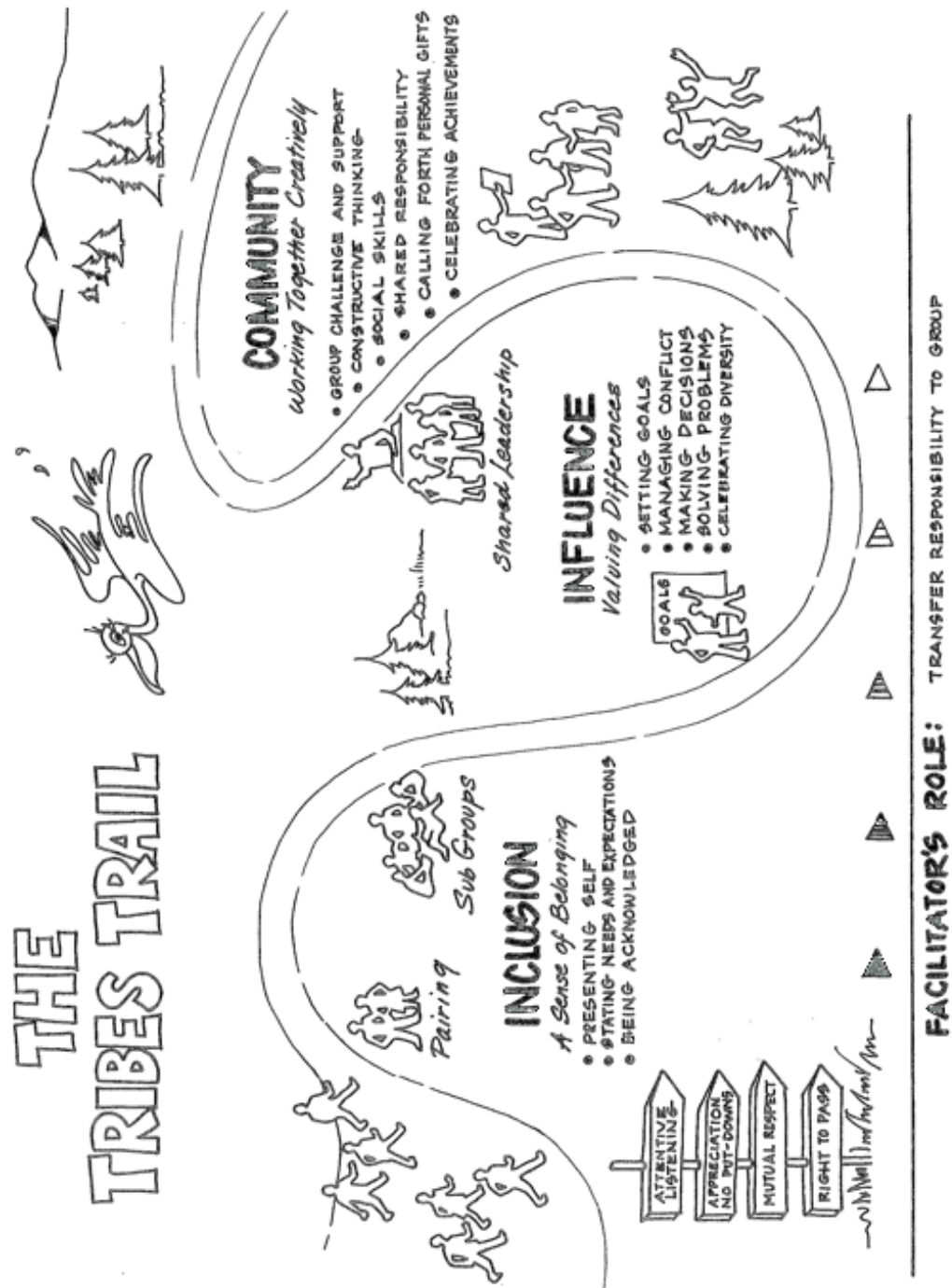
Parent/Guardian Signature: _____

Please return this form to your child's teacher as soon as possible, and
NO LATER THAN FRIDAY, January 30th.

Version 3

1/09/2009

Appendix G: Tribes Training Modules and "Trail Map"



Appendix H. Internal consistency reliability and intraclass correlations of measures

Table H.1. Cronbach alpha reliability coefficients and school intraclass correlations of student checklist measures

	# of Items	Overall Sample			
		Baseline		Post-test	
		α	ICC	α	ICC
<i>Emotional & Behavioral Strengths (BERS-2) – Teacher Report</i>					
Interpersonal strength	15	0.97	0.24	0.96	0.21
Intrapersonal strength	11	0.93	0.33	0.92	0.28
School functioning	9	0.92	0.17	0.92	0.14
Affective strength	7	0.89	0.30	0.89	0.32
<i>Problem Behaviors (ABCL) – Teacher report</i>					
Aggressive behavior	20	0.95	0.12	0.95	0.11
Rule-breaking behavior	9	0.82	0.17	0.81	0.13
Social problems	11	0.81	0.17	0.80	0.13
Attention problems	26	0.95	0.13	0.95	0.11
<i>Emotional & Behavioral Strengths (BERS-2) – Parent Report</i>					
Interpersonal strength	15	--- ^A	--- ^A	0.89	0.00
Intrapersonal strength	11	--- ^A	--- ^A	0.87	0.00
School functioning	1	--- ^A	--- ^A	--- ^B	0.05
Affective strength	7	--- ^A	--- ^A	0.77	0.02
Family involvement	10	--- ^A	--- ^A	0.81	0.02
<i>Problem Behaviors (ABCL) – Parent report</i>					
Aggressive behavior	18	--- ^A	--- ^A	0.90	0.01
Rule-breaking behavior	12	--- ^A	--- ^A	0.77	0.04
Social problems	11	--- ^A	--- ^A	0.78	0.02
Attention problems	11	--- ^A	--- ^A	0.85	0.00
<i>Academic performance – Archival Data</i>					
ELA Test Scores	65-75	--- ^C	0.26	--- ^C	0.22
Mathematics Test Scores	65	--- ^C	0.30	--- ^C	0.28

Notes:

^ABaseline data were not collected.

^BSingle-item measure.

^CItem-level test score data were not collected.

Source: Baseline and year 1 teacher-reported BERS-2/ACBL checklist data and year 1 teacher-reported BERS-2/ABCL checklist data.

Table H.2. Cronbach alpha reliability coefficients and school intraclass correlations of student checklist measures by school grade

	# of Items	Grades 1-2				Grades 3-4			
		Baseline		Post-test		Baseline		Posttest	
		α	ICC	α	ICC	α	ICC	α	ICC
<i>Emotional & Behavioral Strengths (BERS-2) – Teacher Report</i>									
Interpersonal strength	15	0.97	0.24	0.96	0.21	0.96	0.25	0.96	0.22
Intrapersonal strength	11	0.93	0.30	0.92	0.28	0.92	0.37	0.92	0.28
School functioning	9	0.92	0.17	0.91	0.14	0.92	0.16	0.93	0.15
Affective strength	7	0.90	0.29	0.87	0.31	0.89	0.30	0.90	0.33
<i>Problem Behaviors (ABCL) – Teacher report</i>									
Aggressive behavior	20	0.95	0.11	0.95	0.09	0.94	0.14	0.95	0.13
Rule-breaking behavior	9	0.81	0.15	0.80	0.12	0.81	0.19	0.81	0.14
Social problems	11	0.82	0.15	0.78	0.10	0.80	0.19	0.81	0.16
Attention problems	26	0.95	0.14	0.95	0.07	0.95	0.12	0.95	0.15
<i>Emotional & Behavioral Strengths (BERS-2) – Parent Report</i>									
Interpersonal strength	15	--- ^A	--- ^A	0.89	0.00	--- ^A	--- ^A	0.90	0.01
Intrapersonal strength	11	--- ^A	--- ^A	0.87	0.01	--- ^A	--- ^A	0.86	0.00
School functioning	1	--- ^A	--- ^A	--- ^B	0.06	--- ^A	--- ^A	---	0.03
Affective strength	7	--- ^A	--- ^A	0.77	0.04	--- ^A	--- ^A	0.77	0.00
Family involvement	10	--- ^A	--- ^A	0.80	0.01	--- ^A	--- ^A	0.82	0.02
<i>Problem Behaviors (ABCL) – Parent report</i>									
Aggressive behavior	18	--- ^A	--- ^A	0.90	0.01	--- ^A	--- ^A	0.89	0.00
Rule-breaking behavior	12	--- ^A	--- ^A	0.79	0.04	--- ^A	--- ^A	0.73	0.03
Social problems	11	--- ^A	--- ^A	0.79	0.02	--- ^A	--- ^A	0.77	0.02
Attention problems	11	--- ^A	--- ^A	0.86	0.01	--- ^A	--- ^A	0.83	0.00
<i>Academic performance – Archival Data</i>									
ELA Test Scores	65-75	--- ^A	--- ^A	--- ^C	0.23	--- ^C	0.26	--- ^C	0.22
Mathematics Test Scores	65	--- ^A	--- ^A	--- ^C	0.29	--- ^C	0.30	--- ^C	0.27

Notes:

^ABaseline data were not collected.

^B Single-item measure.

^C Item-level test score data were not collected.

Source: Baseline and year 1 teacher-reported BERS-2/ACBL checklist data and year 1 teacher-reported BERS-2/ABCL checklist data.

Table H.3. Cronbach alpha reliability coefficients teacher survey and classroom observation measures

	# of Items	<u>Baseline</u> α	<u>Post-test</u> α
Grades 1-4			
<i>Teacher Survey Measures</i>			
Student centered teaching practices	10	0.83	0.81
Student refecton practices	4	0.83	0.85
Student supportive learning practices	8	0.82	0.84
Cooperative learning groups	5	0.81	0.80
Small group activities	11	0.88	0.86
<i>Classroom Observation Measures</i>			
Student engagement	5	--- ^A	0.79
Student respectfulness	4	--- ^A	0.82
Student sharing	3	--- ^A	0.67
Grades 1-2			
<i>Teacher Survey Measures</i>			
Student centered teaching practices	10	0.82	0.78
Student refecton practices	4	0.81	0.82
Student supportive learning practices	8	0.82	0.83
Cooperative learning groups	5	0.85	0.84
Small group activities	11	0.88	0.85
<i>Classroom Observation Measures</i>			
Student engagement	5	--- ^A	0.75
Student respectfulness	4	--- ^A	0.83
Student sharing	3	--- ^A	0.67
Grades 3-4			
<i>Teacher Survey Measures</i>			
Student centered teaching practices	10	0.83	0.84
Student refecton practices	4	0.84	0.89
Student supportive learning practices	8	0.81	0.86
Cooperative learning groups	5	0.73	0.84
Small group activities	11	0.88	0.87
<i>Classroom Observation Measures</i>			
Student engagement	5	--- ^A	0.63
Student respectfulness	4	--- ^A	0.80
Student sharing	3	--- ^A	0.82

Notes:

^ABaseline data were not collected.

Source: Baseline and year 1 teacher surveys.