Making an Impact

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Short-term impacts of student listening circles on student perceptions of school climate and of their own competencies

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Key findings

A student listening circle encourages students to share with adults their experiences and ideas on an important school topic and to collaborate in planning and implementing school improvement practices. This randomized controlled trial is the first to examine whether participation in a listening circle affects students' perceptions of their influence on school improvement efforts; their sense of being connected to school staff, peers, and the school as a whole; their perceived competency for improving the school; and their sense of academic self-efficacy. The study found no discernible impacts on participating students. Descriptive analyses of school staff perceptions did find that a larger proportion of staff reported after the intervention than before it that students had the ability to make meaningful contributions to school improvement. However, the descriptive findings on staff perceptions do not support conclusions about the impact of the intervention.

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Summary

An activity for eliciting student involvement in collaborative decisionmaking and problem-solving with adults—the student listening circle workshop—is examined for the first time through an experimental study of its effects on participating students. A student listening circle is a facilitated focus group in which students articulate to adults their experiences, perspectives, and ideas on an important school topic and then collaborate with those adults to plan and implement related actions to improve their school climate.

Although the student listening circle is intended partly as a tool to gather data to be used in school improvement efforts, it can also be considered a student intervention (O'Malley, Voight, & Izu, 2013). Accordingly, this study examines the potential impact of students' participation in listening circles on the students involved. Conducted by the School Climate Alliance with technical support from Regional Educational Laboratory (REL) West, the study took place at nine middle schools in eight California school districts in spring 2015.

The study has a primary experimental component and a secondary descriptive component. The primary component is a random assignment investigation of the impacts of student listening circles on the perceptions of student participants. The secondary component is a descriptive study of staff participants' perceptions before and after a student listening circle. The primary component used surveys to ascertain student perceptions of school climate and of their competencies and compared responses from an intervention group of students with those from a control group 1 week before and 1 week and 12 weeks after participation in a student listening circle. The secondary component used surveys to assess changes in staff participants' perceptions of school supports and of student competencies after the student listening circles, as well as interviews to assess staff perceptions of practices implemented as a result of the intervention.

The experimental results showed no discernible effects of the student listening circle on student participants' perceptions of school climate or on their competencies. Participation in the student listening circle was not associated with changes in student perceptions about their input into decisionmaking at school, relationships with school staff and peers, school bonding (sense of connectedness/belonging at school), competencies for improving the school (students' perceived ability to effect school change), or academic self-efficacy (perceived ability to succeed academically).

The descriptive results of the study show that after participating in a student listening circle, a larger percentage of school staff reported the belief that students have opportunities for meaningful participation at school, trust in students, and recognition of students' competency in school improvement. These descriptive results do not provide evidence about the impacts of student listening circles because there was no staff control group. Thus any increases in staff perceptions could be due to factors other than student participation in a listening circle. Moreover, students' actual opportunities and competencies were not directly measured in the study—only staff and student perceptions of opportunities.

According to interviews with school principals and student listening circle coordinators, schools followed through with most of the actions suggested during the student listening

circles and implemented multiple school-improvement practices to address issues identified during the student listening circles.

Although the experimental findings suggest that the student listening circle has no discernible impact on student participants, there are other reasons to implement and conduct further research. Student listening circles are also intended to improve the overall school climate by altering perceptions of staff, actively promoting a more positive school climate, and implementing schoolwide practices. Future studies with a different design may seek to ascertain the extent to which student listening circles have schoolwide effects other than on the perceptions of student and staff participants. Potential schoolwide impacts include effects on decisionmaking practices in schools, school bonding, and improved relationships between school staff and students.

Contents

Why this study?

Performance-based accountability systems that hold teachers and administrators responsible for student achievement (Hanson, Austin, & Lee-Bayha, 2004) rarely offer students a voice in education practices and school reform (Cook-Sather, 2002; Joselowsky, 2007; Mitra, 2006, 2008a, 2008b). Increasingly, however, school improvement initiatives are including efforts to elicit and incorporate student perspectives on teaching and learning (Harris et al., 2014) because of a growing recognition that students can contribute to school improvement (Education Alliance, 2004).

Input from students involved in collaborative decisionmaking and problem-solving with adults is called "student voice" (Camino, 2000; O'Donoghue, Kirshner, & McLaughlin, 2002). Promoting student voice is motivated not only by the notion that reinforcing democratic values and capacities is a key mission of public education and should therefore be modeled in school decisionmaking but also by the notion that students' unique experiences and perspectives on schooling can be used to advance school climate improvement efforts.

Growing evidence suggests that students, working together and with adults, can effect change in the school climate; this study examines the impact of one activity for eliciting student voice—the student listening circle

Giving students the opportunity to tackle issues important to them, in partnership with supportive adults, can be an instrument of individual and organizational growth. Including student voice in school improvement initiatives has been associated with enhancements in teaching, learning, and teacher-student relationships (Fielding, 2001; Mitra, 2003; Soo Hoo, 1993). Students who contribute to school improvement tend to enjoy better relationships with teachers and higher levels of academic motivation (Ames, 1992; Eccles, Wigfield, & Schiefele, 1998; Lee & Zimmerman, 1999). Students with responsibility for and some control over the development of school policies and practices appear to be more likely to take ownership of education goals and to become invested in academic and other types of success (Black & Deci, 2000; Newman, 1992).

Growing evidence suggests that students, working together and with adults, can effect change in the school climate (Christens & Kirshner, 2011; Shah & Mediratta, 2008). Research and theory on youth civic engagement identify three potential pathways for using student contributions to change school climate: collaborating on direct action to change policy and practice, strengthening relationships among students and between students and staff, and expanding students' social and emotional competence (Voight, 2012a; 2012b).

All three pathways could be accessed through a school-based student voice initiative. Students with a voice in school decisionmaking may be able to leverage policy changes, strengthen peer and staff–student social networks, and develop their own socioemotional competencies. These outcomes can improve school climate. While qualitative case-study research has built empirical support for these connections, there is scant quantitative or experimental evidence on the effects of student voice initiatives.

This study examines the impact of one activity for eliciting student voice—the student listening circle. This activity fosters collaboration between students and adults to empower students and improve the school climate (Benard & Slade, 2009; Burgoa & Izu, 2010).

The 16 schools and 11 school districts in the School Climate Alliance, as well as the California Department of Education, have been interested in implementing student listening

circles. The School Climate Alliance is a networked school improvement community in which school teams analyze school safety and climate data to select, implement, and test appropriate interventions. In 2011/12 the California Department of Education's Coordinated School Health and Safety Office sponsored interventions—including listening circles—in the 58 comprehensive high schools with the greatest school climate improvement needs under a grant from the federal Safe and Supportive Schools program.[1] The School Climate Alliance and the California Department of Education thus have a strong interest in learning about the effectiveness of student listening circles.

The School Climate Alliance, with support from Regional Educational Laboratory (REL) West, conducted this study in nine middle schools in eight California school districts in 2015.

What the study examined

This study is the first to rigorously examine the short-term effects of student listening circles on students' perceptions of school climate and their own competencies

This study is the first to rigorously examine the short-term effects of student listening circles on students' perceptions of school climate and their own competencies. This short-cycle experimental trial also demonstrates how to rigorously investigate the effectiveness of student listening circles.

The theory of action behind student listening circles hypothesizes an influence on the overall school climate through direct impacts on school practices, including schoolwide governance, that contribute to school climate and through the perceptions of adults and students who participate in the student listening circle as well as those who do not (figure 1). Though designed partly to be a data-gathering tool, the student listening circle can itself be considered an intervention (O'Malley et al., 2013).

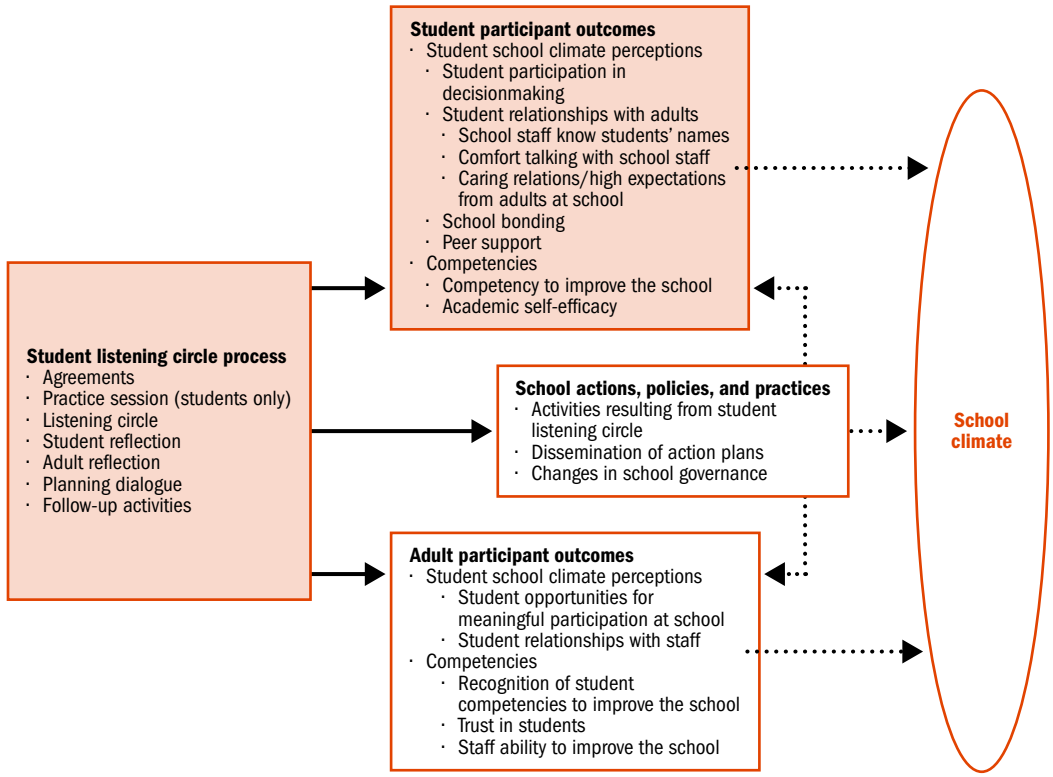
The student listening circle was developed by Benard (2004) and Benard and Slade (2009) to apply insights from resilience research to school settings (box 1). It was refined through its use in 58 California high schools.

This study applied experimental methods to investigate just one aspect of the theory of action underlying the student listening circle—the short-term impacts of participation on students' perceptions (figure 1, shaded boxes). It looked at whether participation in a student listening circle affected students' perception of the school climate and perceptions of their own ability to influence the school climate and of their academic ability. It is possible for the student listening circle to have no discernible impacts on student participants but still to have impacts on school climate. Descriptive analysis was also used to examine staff participants' perceptions before and after the student listening circle.

Experimental and descriptive components of the study

This study had a primary experimental component and a secondary descriptive component. The primary component was a random assignment investigation of the impacts of student listening circles on student participants. The secondary component was a descriptive analysis of staff participants' perceptions before and after the student listening circle. The study also describes how student listening circles were conducted in study schools (see box 1). Data sources and methods are described in box 2.

Figure 1. Theory of action behind student listening circles



Note: Shaded boxes and solid arrows indicate the components of the action model that were rigorously examined using an experimental design. Dashed arrows indicate relationships that were not examined using an experimental design.

Source: Authors' construction based on O'Malley et al. (2013).

Box 1. The student listening circle

A student listening circle is a facilitated focus group in which students share with adults their experiences and ideas on an important school-related topic and then collaborate with those adults to plan and implement actions aimed at school improvement. Ideally, a student listening circle is composed of 8–10 students and no fewer than twice as many (16–20) adults (O'Malley et al., 2013). (On average, 10 students and 16 adults participated in the student listening circles conducted for this study. Each student listening circle included students from different grades, male and female students, and students with varied academic performance. The adults included school staff members, parents, and community representatives.)

Most of the process takes place at the school in a workshop lasting several hours. For the adults the process starts with a 20-minute orientation where participants are asked to abide by agreements designed to make the process feel safe for students, such as turning off cell phones, being silent, not attributing student comments to individual students outside the listening circle activities, and not approaching students for clarification outside of preplanned, structured follow-up activities.

For the students the process starts with a 60-minute practice session during which a trained facilitator—a school staff member or someone from outside the school—asks

(continued)

Box 1. The student listening circle *(continued)*

questions, actively listens to students' responses, reflects their answers, and shows students how to reframe their responses in constructive, solution-focused ways. The questions, chosen by facilitators and school leaders, are intended to elicit information about an area of interest for the school about which the school needs more information to improve decisionmaking. Like adults, students are asked to agree to turn off cell phones during the listening circle, provide productive input, be respectful, use staff or student names only when making positive comments, speak one at a time, and be mindful of time.

In the 70-minute listening circle students speak to the adults, addressing four open-ended questions on the given topic (see below). Students and the facilitator sit facing one another in a circle, while adults sit in a circle around the student circle. As the students speak, the adults listen carefully. Sample student listening circle discussion questions are listed here (questions with asterisks were used in this study):

- How do you know when an adult at school cares about you? What do they say and do?*
- How do you know when an adult at school believes in you? What do they say and do?
- What makes your classes engaging or interesting to you? What could teachers do to make your classes more engaging and interesting?*
- What kinds of things could the school do that would make it a better place to learn and make friends? What could students do to help?*
- If you could change or improve one thing at school, what would it be?*
- What could you do at your school that would make a difference?
- What are your hopes and dreams, and how can adults at school help you achieve them?

After students share their responses, both students and adults reflect on the process.

The listening circle is followed by a 70-minute facilitated dialogue in which student and adult participants collaborate in planning and assigning responsibility for actions aimed at school improvement. Participants develop a list of short- and long-term actions, including at least one short-term action that the participants agree to perform within 30 days.

In subsequent days and weeks the facilitator works with school administrators and participants in student listening circles to review and revise the list of actions. Then the facilitator disseminates notice of the agreed actions schoolwide, and the relevant staff, students, and other parties implement them. Typically, one staff member volunteers to oversee the implementation of a particular action through consultation and collaboration with students and others who participated in the planning dialogue.

The primary component, an impact study, investigated the following experimental research question:

- What is the short-term impact of participation in student listening circles on student perceptions of their input into decisionmaking at school, their relationships with school staff and peers, their bonding to the school, their competency for improving the school, and their academic self-efficacy?

The secondary component examined two descriptive research questions:

- What are staff participants' and school administrators' perceptions of their relationships with students, student opportunities for meaningful participation at school, student competency for improving the school, trust in students, and their own competency in school improvement efforts during the student listening circle?
- What school actions, policies, and practices took place during and after implementation of the student listening circle?

One week before and 1 week and 12 weeks after the student listening circle the study team distributed the student survey to students participating in a student listening circle and to a control group of students not participating and distributed the staff survey to staff participants. There was no staff control group (see box 2). Table 1 displays the outcome categories, sample questions, and answer scale for the student survey, and table 2 displays the same information for the staff survey.

Appendix A provides details of the research design, sites, data, outcomes, and analytic strategy. Appendix B describes goals set and actions taken as a result of the student listening circle. Ancillary analyses of the student surveys are shown in appendix C, and the student and staff surveys are reproduced in appendix D.

What the study found

The primary component of the study was a random assignment investigation of the impacts of student listening circles on student participants; the secondary component was a descriptive analysis of staff participants' perceptions before and after the student listening circle

This section presents the study's findings on the experimental analysis of the short-term impacts of student listening circles on student perceptions of school climate and their own

Table 1. Student survey outcome measures, sample questions, and answer scale, 2015

Student outcome measure and sample questions	Answer scale	
	Minimum	Maximum
Student school climate perceptions		
Student participation in decisionmaking In our school, students are given a chance to help make decisions. Students in this school have a say in how things work.	1 = strongly disagree	4 = strongly agree
School staff who participated in a student listening circle know students' names I am certain that Mr./Ms. _____ knows my name.	0 = 0% of staff	1 = 100% of staff
Comfort talking with school staff who participated in student listening circle Please rate how comfortable you would be talking to Mr./Ms. _____ one-on-one about things that are bothering you.	1 = not at all	5 = very
Caring relationships/high expectations from staff at school At my school, there is a teacher or some other adult who really cares about me. At my school, there is a teacher or some other adult who always wants me to do my best.	1 = not at all true	4 = very much true
School bonding I feel like a real part of this school. I wish I were in a different school. (reverse coded)	1 = strongly disagree	4 = strongly agree
Peer support Students my age really care about what happens to me. Students my age only think bad things about me. (reverse coded)	1 = not at all true	4 = very much true
Competencies		
Competency to improve the school Students like me can really understand what's going on with my school. There are plenty of ways for students like me to have a say in what our school does.	1 = strongly disagree	4 = strongly agree
Academic self-efficacy How well can you study when there are other interesting things to do? How well can you pay attention during every class?	1 = not at all	5 = very well

Source: Authors' compilation.

Table 2. Staff survey outcome measures, sample questions, and answer scale, 2015

Staff measure and sample questions	Answer scale	
	Minimum	Maximum
Student school climate perceptions		
Student opportunities for meaningful participation at school This school encourages opportunities for students to decide things like class activities and rules. Students are involved in helping solve school problems.	1 = strongly disagree	4 = strongly agree
Student relationships with staff Students share their concerns with me. Students talk with me about their homes and families.	1 = strongly disagree	4 = strongly agree
Competencies		
Recognition of student competencies to improve the school Students have a lot to contribute in school improvement decisions. Students offer constructive feedback about the school environment.	1 = strongly disagree	4 = strongly agree
Trust in students Students in this school can be counted on. Students in this school have to be closely supervised. (reverse coded)	1 = strongly disagree	4 = strongly agree
Staff ability to improve the school I believe that I am empowering students. I believe that I am helping kids become independent learners.	1 = strongly disagree	4 = strongly agree

Source: Authors' compilation.

Box 2. Data and methods

For this study, conducted in nine middle schools in eight California school districts in 2015, 256 students volunteered, an average of 28 students per school. A school staff member contacted potential student participants, described the student listening circle and the study requirements, and asked students whether they wished to participate. Only students who agreed and whose parent provided a signed consent form were allowed to participate.

Within each school 10 students were randomly selected to participate; the remaining volunteers served as the control group. So that each student listening circle comprised roughly equal numbers of male and female students and of students in each grade, randomization was stratified on these dimensions. The school principal or study coordinator recruited staff to participate. On average, 16 adults in each school attended the student listening circle, of which 11 were school staff and eligible to participate in the study. Appendix A provides details about the characteristics of student and staff participants.

Impacts were estimated by examining differences between intervention and control groups on key outcomes. Students who participated in the study (n = 256) and school staff who attended a student listening circle (n = 110) completed surveys 1 week before participation in the student listening circle (pretest), 1 week after participation (posttest), and 12 weeks after participation (follow-up). Survey response rates ranged from 91 percent (posttest) to 97 percent (pretest) for students and from 59 percent (follow-up) to 79 percent (pretest) for eligible staff. Posttest and follow-up staff surveys were not collected from two schools.

Student survey data were analyzed for results in two outcome domains: school climate perceptions and competencies. The study gauged school climate perceptions on the basis of students' perceptions about their participation in decisionmaking, student–staff relationships,

(continued)

Box 2. Data and methods *(continued)*

school bonding, and peer support. The study measured personal competency outcomes by students' perceptions of their competency for improving the school and their academic self-efficacy (see table 1). In the experimental analyses of student outcomes, multiple comparison procedures were used to adjust for the increased probability of finding statistically significant differences between the intervention and control groups due to the number of statistical tests conducted (see appendix A). Adjusted *p*-values, which account for multiple significance testing, were used to make inferences about program impacts.

The study measured staff perceptions of student–staff relationships, students' opportunities for meaningful participation at school, students' competencies for improving the school, staff members' trust in students, and staff members' ability to improve the school (see table 2). The study also included structured interviews with administrators after implementation of the student listening circle in order to determine their perceptions of practices implemented as a consequence of the student listening circle.

competencies. It also describes the findings of descriptive analyses of staff perceptions of their relationships with students, student involvement and competencies, and their own engagement in school improvement efforts over a 13-week period.

Experimental results indicate that participation in student listening circles had no impact on student participants' perceptions of either school climate or their own competencies

The random assignment investigation found no statistically significant impact of student participation in the student listening circle on students in any of the areas assessed 1 week or 12 weeks after the student listening circle took place (tables 3 and 4). There were no statistically significant postintervention differences between intervention group and control group students in perceptions of input into decisionmaking at school, relationships with school staff and peers, school bonding, ability to contribute to school improvement efforts, or academic self-efficacy.[2]

The random assignment investigation found no statistically significant impact of student participation in the student listening circle on students in any of the areas assessed 1 week or 12 weeks after the student listening circle took place

Descriptive results showed little change in students' perceptions, while staff participants saw improvements in student competencies and had more trust in students and belief in their abilities

Most measures of student perceptions of school climate and competencies showed no statistically significant increases across time, although students reported that greater percentages of staff who participated in student listening circles knew their names. Descriptive analyses were conducted to examine the extent to which students' perceptions changed in both intervention and control groups. The results suggest that neither the intervention group nor the control group students' perceptions of school climate and competencies had increased one week after participation in student listening circles (see table C1 in appendix C). Twelve weeks after participation, however, students in both groups reported that greater percentages of staff who participated in the student listening circles knew their names. Students in the intervention group (but not in the control group) also reported higher average levels of participation in decisionmaking at school and greater levels of comfort talking with staff participants in the student listening circles than they had before their student listening circle experience (see table C2 in appendix C). The increase in perceptions of decisionmaking opportunities reported by students

Table 3. Impact of participation in student listening circle on student perceptions 1 week after participation, 2015

Student outcome measure	Adjusted means		Difference between intervention and control groups			Student sample size
	Intervention group (standard deviation)	Control group (standard deviation)	Difference[a] (standard error)	*p*-value (adjusted *p*-value)	Effect size	
School climate perceptions						
Student participation in decisionmaking	2.18	2.26	–0.07	.28	–0.11	234
	(0.66)	(0.64)	(0.07)	(.83)		
SLC staff[b] knows name	0.39	0.38	0.00	.93	0.00	236
	(0.40)	(0.38)	(0.02)	(.99)		
Comfort talking with SLC staff[b]	2.62	2.57	0.05	.65	0.04	232
	(1.07)	(1.06)	(0.10)	(.99)		
Caring relationships	3.22	3.23	–0.01	.90	–0.01	236
	(0.70)	(0.63)	(0.07)	(.99)		
School bonding	2.87	2.87	0.00	.98	0.00	234
	(0.64)	(0.57)	(0.05)	(.98)		
Peer support	2.50	2.57	–0.08	.25	–0.12	236
	(0.65)	(0.62)	(0.07)	(.99)		
Competencies						
Competency in school improvement efforts	2.83	2.79	0.04	.53	0.07	234
	(0.56)	(0.57)	(0.06)	(.99)		
Academic self-efficacy	3.68	3.68	0.01	.92	0.01	233
	(0.80)	(0.79)	(0.06)	(.92)		

a. Differences shown in this column may vary from differences calculated from data in the table because of rounding.

b. SLC staff are staff members who participated in the student listening circle.

Note: Higher numbers indicate more positive perceptions of school climate and competencies (see table 1 for descriptions of the student outcome measures). Multiple regression models were run to estimate program impacts and standard errors. Data are regression-adjusted to account for differences in baseline characteristics. The model included baseline measures of the outcomes, gender, grade, school, and randomization strata. In no case was a difference between the intervention and control groups found to be statistically significant at the adjusted .05 significance level.

Source: Authors' analysis of primary data collected for the study through surveys.

in the intervention group was no greater than that reported by students in the control group. Thus perceptions of decisionmaking opportunities did not increase more among students in the intervention group than among students in the control group. The statistically significant increase in intervention students' comfort talking with staff participants in the student listening circles is consistent with the experimental results shown in table 4 (see note 2).[3]

In contrast, all students' average reported levels of competency in school improvement efforts and academic self-efficacy declined between the pretest and the 12-week follow-up. No other changes in school climate were statistically significant (see table C2 in appendix C).

Staff participants in student listening circles perceived improvements in some student competencies. It is not possible to ascertain how staff participants' perceptions were affected by the listening circles because there was no staff control group. However, descriptive

Table 4. Impact of participation in student listening circle on student perceptions 12 weeks after participation, 2015

Student outcome measure	Adjusted means		Difference between intervention and control groups			Student sample size
	Intervention group (standard deviation)	Control group (standard deviation)	Difference[a] (standard error)	*p*-value (adjusted *p*-value)	Effect size	
School climate perceptions						
Student participation in decisionmaking	2.28	2.17	0.11	.11	0.18	236
	(0.67)	(0.63)	(0.07)	(.22)		
SLC staff[b] knows name	0.48	0.45	0.02	.29	0.09	235
	(0.28)	(0.27)	(0.02)	(.44)		
Comfort talking with SLC staff[b]	2.75	2.49	0.26	.02	0.23	233
	(1.13)	(1.11)	(0.11)	(.11)		
Caring relationships	3.15	3.19	–0.04	.60	–0.06	237
	(0.78)	(0.69)	(0.08)	(.72)		
School bonding	2.89	2.86	0.02	.64	0.04	237
	(0.58)	(0.56)	(0.05)	(.64)		
Peer support	2.46	2.56	–0.10	.11	–0.17	236
	(0.66)	(0.61)	(0.06)	(.33)		
Competencies						
Competency in school improvement efforts	2.75	2.76	–0.01	.87	–0.02	236
	(0.62)	(0.58)	(0.06)	(.87)		
Academic self-efficacy	3.58	3.66	–0.08	.29	–0.09	236
	(0.81)	(0.85)	(0.07)	(.58)		

a. Differences shown in this column may vary from differences calculated from data in the table because of rounding.

b. SLC staff are staff members who participated in the student listening circle.

Note: Higher numbers indicate more positive perceptions of school climate and competencies (see table 1 for descriptions of the student outcome measures). Multiple regression models were run to estimate program impacts and standard errors. Data are regression-adjusted to account for differences in baseline characteristics. The model included baseline measures of the outcomes, gender, grade, school, and randomization strata. In no case was a difference between the intervention and control groups found to be statistically significant at the .05 adjusted significance level.

Source: Authors' analysis of primary data collected for the study through surveys.

analyses indicate a change over time in staff participants' perceptions. Specifically, after the intervention staff reported higher average levels of opportunities for students to participate meaningfully at school, student competency for school improvement, and staff trust in students.

Based on the average responses of the 68 school staff who completed the pretest and posttest surveys, the only statistically significant differences were increases in staff perceptions of student competency for improving the school and in their trust in students one week after participation in the student listening circle compared with responses prior to participation (table 5). The percentage of staff reporting that they agreed or strongly agreed that students offer constructive feedback about their school environment (competency in school improvement efforts) increased from 59 percent before the student listening circle to 75 percent one week after (not shown in tables). Similarly, the percentage

Table 5. Results of the staff surveys 1 week before and 1 week after participation in student listening circle, 2015

Staff outcome measure	Means		Difference between pretest and posttest			Staff sample size
	Pretest (standard deviation)	Posttest (standard deviation)	Difference[a] (standard error)	*p*-value	Standardized difference	
Belief that students have opportunities for meaningful participation at school	2.73	2.79	0.07	.11	0.12	68
	(0.55)	(0.64)	(0.04)			
Student–staff relationships	3.15	3.21	0.06	.15	0.13	68
	(0.42)	(0.43)	(0.04)			
Recognition of student competency to improve the school	2.67	2.91	0.24*	.00	0.50	68
	(0.48)	(0.48)	(0.06)			
Trust in students	1.29	1.44	0.15*	.03	0.22	68
	(0.69)	(0.39)	(0.07)			
Staff ability to improve the school	3.44	3.45	0.01	.80	0.03	68
	(0.40)	(0.46)	(0.04)			

* Statistically different from zero at the $p < .05$ level based on a two-tailed test.

a. Differences shown in this column may vary from differences calculated from data in the table because of rounding.

Note: Higher numbers indicate more positive perceptions of school climate and competencies (see table 2 for descriptions of the staff outcome measures). *P*-values are based on a regression model that accounted for differences across schools and the clustering of observations within schools. To assess changes in staff-reported outcomes between pretest and posttest, difference scores were computed by subtracting the pretest survey measure from the posttest measure. Staff-reported measures were determined to have changed after participation in student listening circles if computed difference scores were statistically different from zero.

Source: Authors' analysis of primary data collected for the study through surveys.

of staff who agreed or strongly agreed that students can be counted on (trust in students) increased from 79 percent before to 86 percent one week after the student listening circles.

Of the five measures assessed in the descriptive analysis, staff perceptions of student competency for school improvement increased the most after the student listening circle

Twelve weeks after participating in student listening circles, staff reported a higher average perception that students have opportunities for meaningful participation at school and competency in school improvement efforts and higher trust in students (table 6). Of the five measures assessed, staff perceptions of student competency for school improvement increased the most after the student listening circle.

No significant changes were seen in staff perceptions of student–staff relationships and in staff beliefs in their own ability to improve the school after the student listening circle. There were no statistically significant differences in staff perceptions of the quality of student–staff relationships or of staff's reported beliefs regarding their own ability to improve the school 1 week or 12 weeks after participation in student listening circles compared with their perceptions before participation (see tables 5 and 6).

Study schools implemented action plans as intended

During the action-planning phase of the student listening circle the most common actions chosen were to improve the quality of relationships between peers and to upgrade school facilities. During the action-planning phase of the student listening circles students and staff worked together to identify a few achievable actions intended

Table 6. Results of the staff surveys 1 week before and 12 weeks after participation in student listening circle, 2015

Staff outcome measure	Means		Difference between pretest and follow-up			Staff sample size
	Pretest (standard deviation)	Follow-up (standard deviation)	Difference[a] (standard error)	*p*-value	Standardized difference	
Belief that students have opportunities for meaningful participation at school	2.71	2.84	0.13*	.05	0.22	64
	(0.59)	(0.74)	(0.06)			
Student–staff relationships	3.16	3.24	0.09	.09	0.20	64
	(0.43)	(0.42)	(0.05)			
Recognition of student competency to improve the school	2.65	2.90	0.26*	.00	0.53	64
	(0.49)	(0.47)	(0.06)			
Trust in students	1.24	1.48	0.24*	.01	0.35	64
	(0.67)	(0.43)	(0.08)			
Staff ability to improve the school	3.44	3.49	0.05	.26	0.13	64
	(0.42)	(0.45)	(0.05)			

* Statistically different from zero at the $p < .05$ level based on a two-tailed test.

a. Differences shown in this column may vary from differences calculated from data in the table because of rounding.

Note: Higher numbers indicate more positive perceptions of school climate and competencies (see table 2 for descriptions of the staff outcome measures). *P*-values are based on a regression model that accounted for differences across schools and the clustering of observations within schools. To assess changes on staff-reported outcomes between pretest and follow-up assessment, difference scores were computed by subtracting the pretest survey measure from the follow-up survey measure. Staff-reported measures were determined to have changed 12 weeks after participation in student listening circles if computed difference scores were statistically different from zero.

Source: Authors' analysis of primary data collected for the study through surveys.

to build on the momentum of the student listening circle by implementing some school improvement activities quickly. Seven of the nine schools selected actions that targeted enhancing peer relationships, such as providing time for students to learn about each other (for example, a mix-it-up day, when students are asked to sit with someone new during lunchtime) or to engage in shared activities. Efforts to improve school facilities (such as painting trash cans and upgrading the cafeteria) were other frequently identified common actions. Least commonly identified were efforts to increase parental involvement in school, to address discipline issues, or to improve classroom instruction. See table B1 in appendix B for detailed goals set and actions taken at each study site.

During interviews school principals and student listening circle coordinators reported that almost all of the actions identified in the student listening circle were addressed in the days following the student listening circle

Schools that implemented a student listening circle followed through with most of their planned actions. During interviews school principals and student listening circle coordinators reported that almost all of the actions identified in the student listening circle were addressed in the days following the student listening circle. Some actions were not implemented because they were not feasible, such as one school's effort to increase the space available for students in the cafeteria (see table B1 in appendix B). Schools that implemented student listening circles also engaged in other practices that were suggested during the planning dialogue stage.

Implications of the study findings

Finding no short-term impacts of participation in student listening circles on students' perceptions of school climate or on perceptions of their competencies does not mean that student listening circles have no value. Student listening circles are intended to start a process that may lead to improvements in the overall school climate, including the perceptions of students, faculty, and staff about schoolwide practices. Moreover, the theory of action underlying student listening circles suggests other pathways through which they might affect school climate. For example, students who participated in listening circles worked with school staff to identify school practices that could result in school climate improvements. In many cases, students helped implement these school practices. The extent to which listening circles lead to lasting involvement of students in school improvement efforts is unclear. Nevertheless, the current study provides no evidence that participation in student listening circles leads to some of the main outcomes envisioned for student listening circles—increasing students' perceptions that they have more decisionmaking power in school improvement, greater competencies to improve the school, and better relationships with staff participants in the student listening circles. Study limitations, described below, may have restricted the ability of the study to observe positive impacts.

Finding no short-term impacts of participation in student listening circles on students' perceptions of school climate or on perceptions of their competencies does not mean that student listening circles have no value

Limitations of the study

The study has a number of limitations. Foremost, it is limited by its primary focus on the outcomes of students who participated in listening circles rather than the outcomes and experiences of all students in the school. The student listening circle is intended to promote improvements in the overall school environment. A rigorous examination of the impacts on school characteristics (such as governance, schoolwide practices, and school climate) would require a school-level random assignment study. However, there has been too little research on student-voice initiatives to warrant conducting a large-scale, school-level random assignment study as an initial investigation into the student listening circle process. Instead, the current study used a student-level random assignment design to examine one aspect of the theory of action underlying the student listening circle (see figure 1)—the short-term impacts on the perceptions of students who participated in the intervention.

Another limitation is the possibility that using student-level rather than a school-level random assignment may have spillover effects. Estimated impacts on participants may be dampened by spillover effects on students not assigned to a student listening circle. Students in the control group were likely to be aware that other students and staff were collaborating on school improvement activities and may have learned about student listening circle activities from acquaintances in the intervention group, which could have altered their perceptions of student–teacher relationships and other indicators of school climate. Their perceptions of bonding to school, relationships with school peers and staff, and perceptions of how much influence students have in decisionmaking at the school may have been indirectly influenced by the implementation of a student listening circle in the school. Because participating directly in student listening circles was expected to be more beneficial to students than simply knowing about the activities, these potential spillover effects were anticipated to be weak.

Although it is possible that spillover effects reduced the ability to detect short-term impacts on students who participated in student listening circles, ancillary analyses suggested, for the most part, that student perceptions of school climate and competencies did not improve for either intervention or control group students following implementation of student listening circles. Spillover effects would be expected if both control and intervention group students benefited from the student listening circle. The only exception was that students in both groups reported that higher percentages of staff participants in student listening circles knew students' names 12 weeks after participation than had known them before participation—suggesting that both groups of students became more familiar to staff.[4]

The study is also limited in that there was no way to rigorously examine impacts on staff participants because of the lack of a control group for staff. Standard implementation of student listening circles involves participation by staff members holding certain positions at a school (principal and counselors) for which there is only one incumbent. As a result, neither the effects of the intervention on the perceptions and outcomes of staff in those positions nor the impacts of student listening circles on practices aimed at improving school climate can be ascertained without conducting a school-level randomized trial. Consequently, the descriptive analyses of the staff surveys need to be interpreted with caution, and their generalizability is limited. With no staff control group, it is not possible to ascertain how staff participants' perceptions would have changed if the student listening circles had not taken place. Thus the survey data provide no information about the impacts of participation on staff perceptions. Rather, the results simply describe changes in staff participants' perceptions during the period when the student listening circles occurred.

The self-selection of schools and student participants in the study means that the results may not generalize to schools without an interest in implementing student listening circles or to students in schools that are implementing student listening circles who do not wish to participate in them

Moreover, the survey responses may have been influenced by the fact that participating staff were selected by their principals. The responses of these staff may differ from the responses of other staff in a school. Survey attrition rates were also high. Of the 110 school staff participants who were available to participate, 68 completed the pretest and posttest surveys (1 week before and after participation), and 64 completed the pretest and follow-up surveys (1 week before and 12 weeks after participation).

A further limitation of the study is the self-selection of schools and student participants. The results may not generalize to schools without an interest in implementing student listening circles or to students in schools that are implementing student listening circles who do not wish to participate in them. Historically, participation in a student listening circle has been voluntary, and although it would be hard to conceive of a situation in which a student would be required to participate, the self-selection of student participants into this study may have diluted or amplified short-term program impacts. The intervention was described to all potential student participants, and students were asked to consider participation in the study only if they were willing to participate in the student listening circle. Consequently, students who chose to participate might be expected to be more engaged in school from the onset, more invested in school improvement, and more willing to share their opinions than nonparticipating students might be. Such self-selection factors may have limited increases in students' perceptions of school climate and competencies as a result of participating in student listening circles. Alternatively, students who volunteered may have been more receptive to the intervention than nonvolunteers; it is conceivable that the student listening circle would have stronger impacts on students who are more receptive to it.

Appendix A. Research design, outcome measures, and analysis methods

This appendix explains the research design and data, outcome measures, and analysis methods that were used to address the primary experimental research question and the two descriptive questions. Each section focuses first on the impact study (addressing the first research question) and then on the descriptive portion of the study (addressing the second and third research questions).

Research design and sample characteristics

For the impact study portion of the research a pretest-posttest control group design (Campbell & Stanley, 1963) was used to assess student listening circle (SLC) impacts on student outcomes (table A1). The intervention consisted of participation in an SLC workshop in spring 2015, and data were collected through surveys administered to intervention and control groups before and after the student listening circles occurred. Posttest surveys were administered one week after student listening circles to assess any immediate effects of participation, and follow-up surveys were administered at 12 weeks to estimate the temporal stability of any effects.

The School Climate Alliance (SCA) recruited students for the study and conducted all data collection activities, with support from Regional Educational Laboratory (REL) West. The study took place during the 2014/15 school year over a 14-week period at nine middle schools in eight California school districts: Colton Joint Unified School District, Hemet Unified School District, Huntington Beach City School District, Poway Unified School District, San Diego Unified School District, St. Helena Unified School District, Victor Valley Union High School District, and West Contra Costa Unified School District.

The timing of implementation varied across schools according to scheduling constraints, but all nine of the student listening circles were completed no later than March 2015 to allow time for collecting follow-up data 12 weeks later and before the end of the school year. The study took place in middle schools that had not previously implemented a student listening circle so that potential changes could be observed in student and staff perceptions and in school policies and practices that accompanied SLC implementation. To standardize the intervention for the experimental trial, REL West staff provided technical support for the implementation of the student listening circle, student recruitment, and data collection activities. Data were shared with REL West to conduct the impact analyses.

Student sample recruitment, randomization, and characteristics. Participating schools varied in enrollment size and demographic characteristics (table A2). Enrollment ranged

Table A1. Student listening circle study design and measurement points

	Pretest (1 week prior to intervention)			Posttest (1 week after intervention)	Follow-up (12 weeks after intervention)
Students	✔	Randomized	Student listening circle	✔	✔
			Control group	✔	✔
Staff	✔		Student listening circle	✔	✔

✔ indicates survey measurement point.

Source: Authors' construction.

from 288 to 1,449 students across the nine schools. Four of the schools served lower percentages (averaging 27 percent) of students eligible for the federal school lunch program, (a proxy for low-income status), than the state average of 59 percent, and five of the schools had higher than average percentages of students eligible for the federal school lunch program (averaging 85 percent). Five of the schools served students in grades 6–8, and four served students in grades 7–8.

To help recruit students to participate, the principal of each school designated an SLC coordinator (usually a school counselor) to work out the logistics of SLC recruitment and implementation. Because the goal of the student listening circle is to hear from and involve a wide range of students, SLC coordinators were encouraged to seek students who might not normally engage in such an activity. SLC coordinators contacted students, described the student listening circle and the study, and asked them whether they wanted to participate. Only students who agreed and who had positive consent from a parent (a signed consent form) could participate.

To ensure that student participants represented equal distributions of students across grade and gender, each school, with REL West's assistance, organized student volunteers into groups (or "randomization strata") that consisted of one group of male students and one group of female students for each grade level in the school—totaling six grade/gender groups for the schools serving grades 6–8 and four grade/gender groups for the schools serving grades 7–8. These groups were then randomly divided into intervention and control groups. Within each randomization stratum in each school, approximately one to three students were randomly assigned to the intervention group (the students who would participate in the SLC workshop), and the remaining students served as the control group (not assigned

Table A2. Characteristics of schools participating in the student listening circle study, 2015

School characteristic	All schools	Low-income schools	High-income schools
Number of schools	9	5	4
Grade configuration (number of schools)			
6–8	5	1	4
7–8	4	4	0
Student enrollment (number)	846	825	863
Race/ethnicity (percent)			
Asian	5	2	8
Black	10	4	15
Hispanic	52	69	31
White	16	11	49
English learner status			
English learner students (percent)	16	21	10
Eligibility for the federal school lunch program			
Eligible (percent)	59	85	27

Note: For student enrollment, race/ethnicity, English learner students, and eligibility for the federal school lunch program the numbers are averages across the set of schools in each school category. Race/ethnicity percentages do not sum to 100 because some categories (such as Filipino, two or more races, and none reported) are omitted. Low-income schools are those with 50 percent or more of students eligible for the federal school lunch program, and high-income schools are those with less than 50 percent of students eligible.

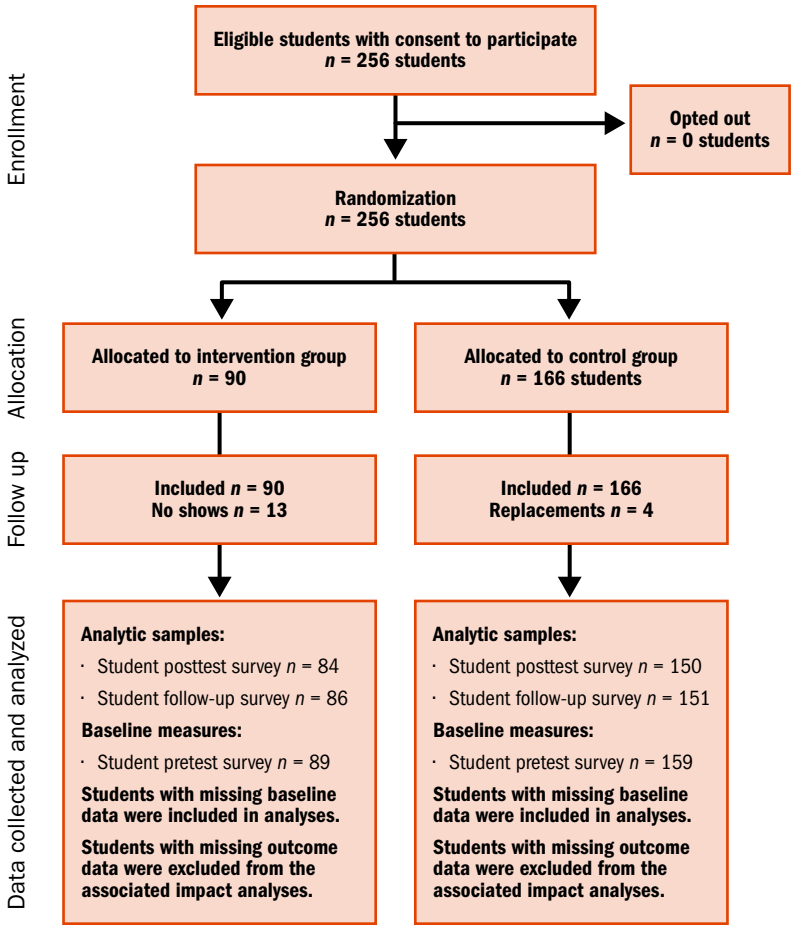
Source: California Department of Education, 2015.

to participate in the student listening circle). Because more girls than boys were in the randomization pool, boys had a higher probability of being assigned to the intervention group.[5]

Because effective implementation of the student listening circle requires a minimum of eight students, an additional two control students per stratum were randomly selected to serve as a replacement pool for SLC participants if more than two students assigned to the intervention group did not participate. Students in the replacement pool were randomly selected within each applicable stratum to participate in the intervention on the day of the student listening circle until a total of eight SLC participants were available.[6] If eight or more intervention group students were available on the day of the student listening circle, replacement students did not participate in the student listening circle. To provide unbiased comparisons between the intervention and control groups, intervention group "no-shows" and replacement group students were kept in their original random assignment groups for the analyses to account for nonrandom attrition or students crossing conditions.[7]

Of the 256 students who were recruited and had parental consent to participate in the study, 90 were randomly assigned to the intervention group and 166 were assigned to the control group (figure A1). Of the 90 students assigned to the intervention group, 13 were absent or unavailable to participate in the student listening circle on the day it took place.

Figure A1. Student sample numbers, allocation, and attrition, 2015



Source: Authors' analysis of primary data collected for the study through participation rosters and surveys.

Consequently, four students from the control group replacement pool participated in the student listening circle.

All students who provided posttest or follow-up survey data were included in the impact analysis samples. Student posttest surveys were collected from 234 students: 84 students (93 percent) in the intervention group and 150 students (90 percent) in the control group. Follow-up survey data were collected from 237 students: 86 intervention group students (96 percent) and 151 control group students (91 percent).

Student sample characteristics and baseline equivalence. Because four of the nine participating schools do not serve grade 6 students, fewer grade 6 students participated in the study than grade 7 and grade 8 students (table A3). Twenty percent of study participants were in grade 6, 42 percent in grade 7, and 38 percent in grade 8—with similar percentages across intervention and control groups. Sixty percent of study participants were female and 40 percent were male. Because roughly equal numbers of female and male students were randomly assigned to the student listening circle, the intervention group had a smaller percentage of female students (54 percent) than the control group had (64 percent). This difference is not statistically significant (see note 5). Forty-seven percent of student study participants indicated that they were Hispanic, 21 percent were White, 16 percent were of mixed race (two or more races), 8 percent were African American, and 8 percent "other." Differences in reported racial/ethnic group status across the intervention and control group were not statistically significant.

Intervention and control group students had similar pretest averages on the measures of school climate perceptions and competencies (table A4). There were no statistically significant differences across groups on these measures.

Table A3. Characteristics of student participants in the student listening circles, 2015

Characteristic	Total sample (percent)	Intervention group (percent)	Control group (percent)	*p*-value	Student sample size[a]
School grade					
6	20.1	17.9	21.3	.78	234
7	41.9	41.7	42.0		
8	38.0	40.5	36.7		
Gender					
Female	60.3	53.6	64.0	.13	234
Male	39.7	46.4	36.0		
Race/ethnicity					
African American	8.1	8.0	8.0	.69	234
Hispanic	47.0	47.6	46.7		
White	21.4	20.2	22.0		
Mixed	15.8	13.1	17.3		
Other	7.7	10.7	6.0		

a. Sample size is the number of students in the final analytic sample that was used for the posttest impact analysis. School grade and gender data were collected from roster data to conduct the random assignment. There were no missing race/ethnicity data because this characteristic was assessed on the pretest, posttest, and follow-up surveys.

Note: The *p*-values, based on Fisher's exact test computations, represent the probability that the differences in distributions across the intervention and control groups are due to chance.

Source: Authors' analysis of primary data collected for the study.

Table A4. Pre-intervention sample characteristics for the posttest analytic sample for student listening circle participants, 2015

Student outcome measure	Means		Difference between intervention and control groups			Student sample size[b]
	Intervention group (standard deviation)	Control group (standard deviation)	Difference [a] (standard error)	*p*-value	Standardized difference	
School climate perceptions						
Student participation in decisionmaking	2.16	2.20	–0.03	.65	–0.05	227
	(0.66)	(0.66)	(0.08)			
Student–staff relationships						
SLC staff[c] knows student's name	0.41	0.40	0.01	.71	0.04	229
	(0.28)	(0.25)	(0.03)			
Student is comfortable talking to SLC staff[c]	2.44	2.52	–0.08	.58	–0.08	222
	(1.11)	(1.07)	(0.15)			
Caring relationships	3.17	3.22	–0.05	.52	–0.09	229
	(0.64)	(0.62)	(0.08)			
School bonding	2.85	2.95	–0.11	.15	–0.20	227
	(0.65)	(0.54)	(0.08)			
Peer support	2.54	2.59	–0.04	.63	–0.07	229
	(0.68)	(0.64)	(0.09)			
Competencies						
Competency in school improvement efforts	2.82	2.88	–0.06	.36	–0.13	227
	(0.52)	(0.48)	(0.36)			
Academic self-efficacy	3.72	3.74	–0.02	.86	–0.03	226
	(0.86)	(0.80)	(0.12)			

a. Difference may not be equal to calculated difference between the intervention and control group values due to rounding error.

b. The final analytic sample that was used for the posttest impact analysis and with non-missing pretest data.

c. SLC staff are staff members who participated in the student listening circle.

Notes: Regression models that accounted for study design characteristics (randomization strata and school) were estimated to obtain *p*-values for intervention/control group differences.

Source: Authors' analysis of primary data collected for the study.

Staff sample. Across the nine schools, 148 adults attended the student listening circle, of which 110 were school staff eligible to participate in the study. The remaining adult participants were district staff (15), parents (8), or other adults (15, which included staff from other schools, members of the community, and others). Fifty-seven percent of school staff SLC participants were teachers (table A5). Seven of the nine student listening circles had a school principal or associate principal participate, and six of the student listening circles had at least one school counselor participate. (Two counselors participated in the SLC in four schools.)

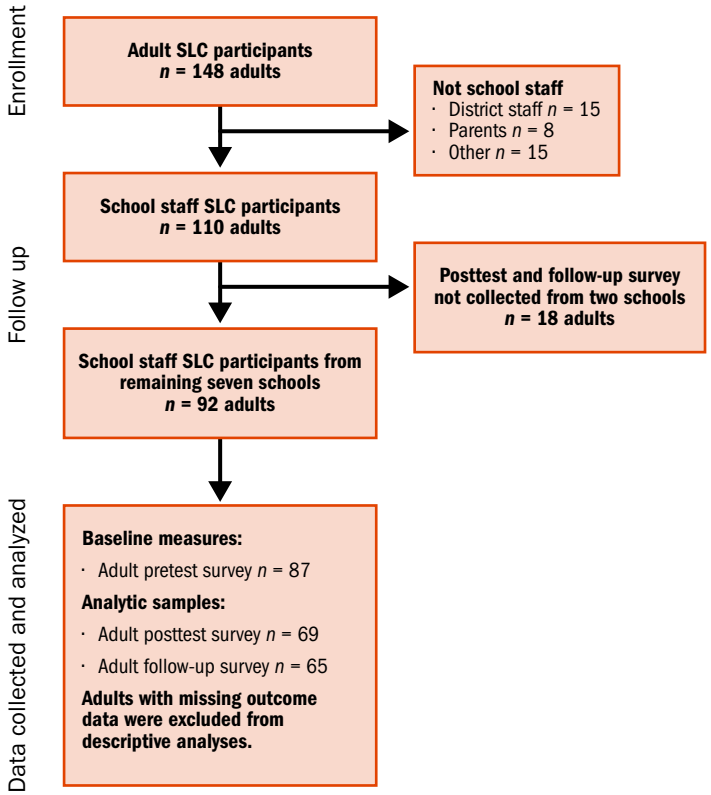
Paper-and-pencil pretest staff surveys were administered in all nine schools. Posttest and follow-up surveys were administered online. Posttest and follow-up surveys were not administered in two of the nine schools because of logistical constraints related to email spam filtering. Pretest survey data were collected from 87 staff study participants (79 percent of the school staff who participated in the student listening circles), posttest survey data from 69 participants (63 percent of the staff), and follow-up survey data from 65 participants (59 percent of the staff; figure A2).

Table A5. School roles of staff participants in the student listening circles, 2015

Role	Number	Percent
Teacher	63	57.3
Instructional aide	11	10.0
Counselor	10	9.1
Classified staff	9	8.2
Certificated staff	7	6.4
Principal	7	6.4
Total	110	100.0

Source: Authors' analysis of primary data collected for the study through participation rosters.

Figure A2. Adult study participant numbers and attrition, 2015



SLC participants are those who participated in a student listening circle.

Source: Authors' analysis of primary data collected for the study through participation rosters and surveys.

Outcome measures

The study outcomes were measured by comparing results from student and staff surveys (see appendix D) that SCA districts administered up to 1 week prior to assignment of students to intervention and control groups (pretest) against the results of surveys administered 1 week after SLC implementation (posttest), and 12 weeks after SLC implementation (follow-up). Also, SCA coordinators documented the actions that were suggested during the student listening circles and any school-level actions, policies, and practices that resulted from the SLC implementation as the school year unfolded.

Student measures. The study examined the student listening circle's effects on two outcome domains: students' perceptions of school climate and of their own competencies. In the following discussion of outcomes that were measured, the first five were used to assess the school climate perceptions domain and the last two were used to assess the competencies domain. Within each domain, the list of outcomes is arranged with the outcomes expected to be most affected by the intervention described first. The baseline student survey (conducted prior to students' assignment into intervention and control groups) also collected information on student demographic characteristics. Outcome indices for each subdomain were constructed by averaging the items that comprise the subdomain.

Student participation in decisionmaking. Students' perception of their input into decisionmaking was assessed by means of a scale developed by Brand, Felner, Shim, Seitsinger, and Dumas (2003) and adapted for this study. Students rated the statement "Students in this school have a say in how things work" by selecting one of four response categories ranging from 1 (strongly disagree) to 4 (strongly agree).

Student–staff relationships. Two instruments assessed students' perceptions of staff relationships with students. First, students were asked to rate student ties with specific staff members using a social network questionnaire. Using a grid system that listed up to 44 staff members, including the SLC staff participants,[8] students were asked to indicate whether each staff member knew the student's name and whether the student felt comfortable talking to the staff member about things that were bothering the student. Although the survey questions asked about all or most staff members in each school, only the items referencing staff SLC participants were used to create outcome measures. Students' ratings were used to compute student-level averages of relationship ties with staff SLC participants only. Second, a six-item scale from the California School Climate, Health, and Learning Survey (Cal-SCHLS) system student survey was used to assess students' perceptions of student–staff relationships (Hanson & Voight, 2014). The items asked students to rate statements about caring relationships with adults ("At my school, there is a teacher or some other adult who really cares about me") and supportive, high-expectations messages from adults at school ("At school, there is a teacher or some other adult who tells me when I do a good job"). Response options range from 1 (not at all true) to 4 (very much true).

School bonding. Students' perceptions of school bonding were assessed using survey items from the identification/participation in school subscale (Ye & Wallace, 2014) from the Psychological Sense of School Membership scale (Goodenow & Grady, 1993) that were adapted for this study. This subscale consists of six items (for example, "I feel like a real part of this school") that measure school bonding, with response categories ranging from 1 (not at all) to 5 (completely true). The response categories were modified to assess strength of agreement (1 = strongly disagree, 4 = strongly agree) to be consistent with other measures used in the study surveys.

Peer support. Williams and Guerra's (2007) six-item scale was used to assess students' perceptions of peer support. Adapted from the Generalized Perceptions of Peers scale (Salmivalli, Ojanen, Haanpaa, & Peets, 2005), the Williams–Guerra scale captures both positive and negative qualities of peers as a source of social support (for example, "Students my age really care about what happens to me/can be trusted a lot/only think about themselves"). The original response options ranging from 1 (no, not at all) to 4 (yes, completely) were

altered to "not at all true," "a little true," "pretty much true," and "very much true" for consistency with other items on the study survey.

Competencies for improving the school. Students' beliefs about their competencies to improve the school were measured using survey items adapted from the policy control subscale of the Sociopolitical Control Scale for Youth (Peterson, Peterson, Agre, Christens, & Morton, 2011). This nine-item scale measures students' perceived ability to effect change in their community or school (Christens, Peterson, Reid, & Garcia-Reid, 2012). Example items include: "I feel like I have a pretty good understanding of the important issues which confront my community or school" and "Most community or school leaders would listen to me." The items were altered to replace "community or school" with "school" so that the items assessed student empowerment exclusively in the school setting. Response categories ranged from 1 (strongly disagree) to 4 (strongly agree).[9]

Academic self-efficacy. Students' perceptions of their academic self-efficacy were assessed with survey items from an eight-item subscale developed by Muris (2001, 2002). The items assessed student perceptions of academic efficacy irrespective of academic content (for example, "How well can you get teachers to help you when you get stuck on homework?"). Students responded to five-category Likert items ranging from 1 (not at all) to 5 (very well).

Staff measures. Surveys of the staff SLC participants were conducted at the same times as the student surveys: 1 week prior to SLC implementation (pretest), 1 week after SLC implementation (posttest), and 12 weeks after SLC implementation (follow-up). This section describes the outcomes measured by the staff surveys. The pretest surveys asked for the respondent's role in the school (teacher, counselor, principal) in addition to the measures described below. Indices were constructed by averaging the items that comprised the subdomain.

Student–staff relationships. Staff perceptions of student–staff relationships were assessed using items adapted from Brand, Felner, Seitsinger, Burns, and Bolton (2008). These items ask teachers about the frequency of interactions with students involving personal issues (for example, "Students…share their concerns with me/express their feelings to me/talk with me about their homes and families"). The response categories for these items range from 1 (strongly disagree) to 4 (strongly agree).

Student opportunities for meaningful participation at school. Two sets of items were used to assess staff perceptions of students' opportunities for meaningful participation at school: an item from the Cal-SCHLS system staff survey ("This school encourages opportunities for students to decide things like class activities or rules") and three modified items from the Alaska School Climate and Connectedness Survey (ASCCS) developed by American Institutes for Research (2013) (for example, "Students are involved in helping to solve school problems"). Although both sets of items have been used independently, and both demonstrate adequate reliability (alpha = 0.81–0.83), Hanson and Voight's (2014) analysis suggests that the Cal-SCHLS scale did not contain sufficient items at that time to assess a dimension of staff perceptions of student involvement distinct from other school climate factors. To ensure sufficient construct coverage, the Cal-SCHLS and ASCCS items were combined to form a seven-item scale, using the Cal-SCHLS response categories (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree).[10]

Recognition of student competencies for improving the school. Because the study team was unable to locate validated measures of teacher perceptions of student competency for school improvement, items were developed to assess this outcome (for example, "Students have unique perspectives about barriers to learning"). Several items were adapted from Caprara, Barbaranelli, Borgogni, and Steca's (2003) teacher efficacy beliefs scale and Van Maele and Van Houtte's (2011) teacher trust in students scale. The Cal-SCHLS response categories were used for these items (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree).

Trust in students. A measure developed by Hoy and Tschannen-Moran (1999) and adapted by Van Maele and Van Houtte (2011) was used to assess staff trust in students. The measure includes 10 strength-of-agreement items measured on a four-point scale. Examples of items include "Students in this school are reliable" and "Students in this school can be counted on."

Staff efficacy to improve the school. Items from the efficacy subscale from Short and Rinehart's (1992) School Participant Empowerment Scale were used to assess staff perceptions of their commitment to student development (for example, "I believe that I am empowering students," "I perceive that I am making a difference"). The measures include six items, each with four response categories measuring strength of agreement (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree).

Documentation of practices implemented as a result of student listening circles. As described earlier, the student listening circle concludes with an action-planning phase, in which students and staff identify two to four concrete, achievable, time-limited actions to improve school climate. The actions were documented as part of the SLC process. In addition, structured interviews were conducted with administrators in late spring after SLC implementation to assess their perceptions of these practices.

Analytic methods

SCA school districts shared all collected data with REL West, and the REL West study team conducted all data analyses because SCA districts do not have the resources or capacity to conduct such analyses.

Impact analyses of student reported measures. The analysis of short-term SLC impacts on student outcomes (research question 1) depends on the random assignment research design as its primary source of inference. The primary hypothesis-testing analyses involved fitting single-level regression models. Covariates included intervention group, baseline measures of outcome variables, other observed covariates (gender and grade), and fixed effects for school and randomization strata. The model takes the following form:

$$DV_{ij} = \alpha_0 + \beta_1 PreDV_{ij} + \beta_2 SLC_{ij} + \sum \beta_I I_{ij} + \sum \beta_S Strata_{ij} + \sum_{j=2}^{9} \beta_j School_j + \varepsilon_{ij}$$

where subscripts *i* and *j* denote student and school, respectively; *DV* represents the student outcome, measured either 1 week or 12 weeks after SLC implementation; *PreDV* represents the pretest measure of the outcome; *SLC* is a dichotomous variable indicating student random assignment to the intervention group; *I* is a vector (or control variable) for students measured prior to exposure to the intervention; *Strata* represents dichotomous variables for each randomization stratum and accounts for unequal probabilities of assignment

to the intervention group; *School* represents dichotomous variables for each school; and ε_{ij} is an error term for individual students. The *j* dichotomous variables account for variation in the mean value of the dependent variable across participating schools. The intervention effect is represented by β_2, which captures intervention/control differences in the outcome variable. Impacts at 1 week and 12 weeks after SLC implementation were estimated in separate models.

Treatment of missing data. The missing-indicator method was used to account for missing values on the covariates in the student impact analysis models (White & Thompson, 2005). In the missing-indicator method all observations with missing values on covariates are retained in the analysis. Indicator variables were created for missing values on each variable (0 = observed, 1 = missing), and missing values on the covariates were coded to a constant. Both the recoded covariates and the missing value indicator variables were included in the impact analysis model. Observations with missing values on outcome variables were excluded from the impact analyses. Deletion of observations with missing outcome variables has been shown to result in accurate impact estimates and standard errors when outcomes are missing at random, conditional on the covariates (Allison, 2002; von Hippel, 2007). Staff with missing data on the applicable pretest or the posttest measure were excluded from the analyses examining change between pretest and posttest. Those with missing data on the pretest survey measure and on the follow-up measure were eliminated from the analysis examining follow-up data.

Multiple hypothesis testing. Two outcome domains were delineated for research question 1: school climate and competencies. Within these two outcome domains, multiple comparison procedures were used to adjust for the inflation of type 1 errors due to multiple hypothesis tests. Adjustments were applied to adjust for the six statistical tests for the school climate outcomes and for the two statistical tests for the competencies outcomes. No across-domain adjustments were made. Benjamini and Hochberg's (1995) stepwise multiple hypothesis testing procedure was used to adjust for multiple statistical tests. This procedure involves ordering *p*-values obtained for each outcome variable within each domain from largest to smallest and multiplying each unadjusted *p*-value by $N/(N - j + 1)$, where N is the number of outcome variables within a domain and j represents the order of the test. The procedure involves rejecting all null hypotheses in which the adjusted *p*-value is less than .05. Because research question 2 is descriptive, no multiple comparison adjustments were applied when analyzing the staff survey data.

Treatment of replacements. As described previously, if fewer than eight students assigned to the intervention group were available when the student listening circle took place, intervention "no shows" were replaced with randomly selected control group students. Thirteen students assigned to the intervention group did not participate in the student listening circle due to absence or unwillingness to stay after school, and four randomly selected control group students participated in the student listening circle in their place. These 17 students were kept in their original random assignment groups in the analysis.

The study team conducted a sensitivity analysis to see if students who participated in the student listening circle (regardless of their random assignment status) exhibited higher regression-adjusted averages on posttest and follow-up outcomes than did students who did not participate in the student listening circle. The regression model took the same form as the impact analysis model described earlier, except an indicator for SLC participation

was used instead of the random assignment indicator. The point-estimates and statistical significance levels from this descriptive model did not differ from the impact analysis results.

Descriptive analysis of student survey responses. To assess the possibility that SLC implementation may have influenced students' perceptions of school climate and competencies in both the intervention and control groups, descriptive analyses were conducted to examine the extent to which perceptions changed in both groups. Changes on student-reported outcomes between pretest and posttest and changes between pretest and follow-up assessments were examined by computing difference scores by subtracting the pretest survey measure from the appropriate postintervention measure ($Y_{post} - Y_{pre}$, $Y_{followup} - Y_{pre}$). Difference scores were examined separately for the complete sample, the control group, and the intervention group. Student-reported measures were determined to have changed after participation in student listening circles if computed difference scores were statistically different from zero. (The point estimates using this procedure are the same that would be obtained by calculating paired *t*-tests.) To obtain standard errors of difference scores, analyses accounted for the dependence among students within schools by using the Huber–White sandwich estimator of variance (Huber, 1967; White, 1980).

Descriptive analysis of staff survey responses. Staff survey data were used to examine staff SLC participants' perceptions of school supports and perceptions of student competencies. Analyses similar to those described above for students were conducted to assess changes on staff-reported outcomes. Because there is no comparison group, these results simply describe the changes in the adult SLC participants' survey responses. The results cannot be used to make inferences about SLC impacts on staff.

Implementation and follow-up analyses. The study team facilitated the student listening circle at each school to help ensure that the intervention was delivered consistently across sites. Facilitators took notes about each SLC component session, noting both typical and special circumstances. A critical outcome of each SLC planning dialogue is a list of short- and long-term action items. Critical themes addressed during the planning dialogue and recommended follow-up actions were recorded on a planning dialogue summary template. Information recorded on the template was summarized and used as the basis for follow-up structured interviews with administrators to assess perceptions of practices implemented as a result of the student listening circle.

Template data and administrator interview data were examined to identify the extent to which SLC actions were implemented, potential barriers to follow-through with the actions, and possible other actions perceived to have been taken as a result of the student listening circles. These results are purely descriptive and cannot be used to make inferences about impacts of the student listening circle on school practices. The actions suggested during student listening circles and their dispositions are listed in appendix B.

Appendix B. Student listening circle goals set and actions taken

The school-improvement actions proposed by student listening circles and their disposition are shown in table B1 by school. The action plans were recorded by the study team during the student listening circles. Follow-up interviews with school administrators determined whether and how each proposed action was carried out. Most actions were carried out at least in part.

Table B1. Student listening circle goals set and actions taken, 2015

School	Short-term action plan goal	Subsequent activities
A	1. Develop parent/student survey assessing time needed for homework (instruction). 2. Remove dirt pile from physical education/running area on campus (facilities, safety).	1. Developed surveys for students, parents, and staff (instruction). Collaborated with high school to get more information on homework (instruction). 2. Leveled jogging path and removed dirt pile (facilities, safety). 3. Held assembly about behavioral expectations discussed in student listening circle (discipline). 4. Investigated restroom facility improvement (facilities).
B	1. Conduct needs assessment regarding student clubs (peer relationships). 2. Share SLC results with all staff (dissemination, relationships).	1. Developed survey, sent to staff to identify club sponsors. 2. Shared results at staff meeting. 3. Formed school climate committee composed of staff and students. 4. Planned once-a-week icebreaker activities for students. Postponed implementation until fall 2015 (peer relationships). 5. Implemented lunch-table activities to encourage student/staff interaction (relationships). 6. Planned periodic student assemblies/spirit days/rallies to promote school connectedness and relationships between students and staff (relationships). Implemented one assembly.
C	1. Have student-led morning announcements (meaningful participation). 2. Strategically post cafeteria menu to eliminate delays in lunch line (facilities). 3. Add more space/tables in lunch area (facilities).	1. Did not implement student-led morning announcements. 2. Posted menu daily on a sign outside the cafeteria so students have time to contemplate food choices. 3. Did not implement lunch area expansion. 4. Switched to having food entirely prepared on-site, no more prepackaged food (facilities). 5. Shared SLC results at an all-staff meeting (relationships). 6. Faculty was encouraged to and began using more cooperative, hands-on, or project-based learning (instruction). 7. Family Night became more project-based because of SLC results (instruction, parent involvement). 8. Re-implemented Science Fair (instruction, project-based learning). 9. Implemented a “Dancing Through the Decades” school activity (relationships).

(continued)

Table B1. Student listening circle goals set and actions taken, 2015 *(continued)*

School	Short-term action plan goal	Subsequent activities
D	1. Create an Instagram account for school to reduce cyber bullying (safety). 2. Purchase new sports equipment (facilities). 3. Share SLC ideas with the Associated Student Body for more group collaboration (dissemination, relationships). 4. Implement surveys/suggestion box/polls to gain more student input (meaningful participation).	1. Did not implement Instagram account. 2. Purchased some new sports equipment. 3. Shared SLC highlights/findings with Associated Student Body and at all staff meeting. 4. Did not implement.
E	1. Implement a mix-it-up day at lunch to increase cross-grade interaction (peer relationships). 2. Implement lunchtime activities/clubs (peer relationships). 3. Develop survey to learn of student/staff interests. 4. Put forth teacher-student consequences proposals with learning community agreements (discipline). 5. Acquire board games through family donations to help integrate grade levels (peer relationships).	1. Student council planned and implemented at least one mix-it-up day. 2. Implemented Friday music at lunch; also attempted to have chess club with visiting adults at lunch, but moved to after school to allow for more time. 3. Did not implement survey. 4. Did not implement teacher-student consequences proposal. 5. Acquired board games and made them available in the library.
F	1. Open up rooms to spend time at lunch (peer relationships). 2. Create an anti-bullying club (safety, peer relationships). 3. Create "Trash Can Competition" to promote a cleaner environment (facilities).	1. Many teachers offered to open up classrooms during lunch; but not implemented because of teacher contract issues. 2. Created an anti-bullying club, which meets 1–2 times per week, attended by 20–30 students per meeting. Implemented various activities (Give-a-Compliment Challenge Day, Warm and Fuzzy Day) and provided coordinator with testimonials. 3. Principal offered to pursue purchasing more trash cans and provide one for each club, but interest in this project subsided.
G	1. Implement Mix-it-up Wednesdays (peer relationships).	1. Implemented Mix-it-up Wednesdays, which has included cross-grade groups with ice-breaker activity (two truths and a lie) and cooperative task (cup stacking with string).
H	1. Recognize positive attitudes by handing out tokens (peer relationships).	1. Select SLC participants with Positive Behavioral Interventions and Supports team to plan roll-out of token system. 2. Continued meeting with staff and students to implement token system in 2015/16. 3. Shared themes and topics of Student Listening Circle at staff meeting (dissemination, staff relationships).
I	1. Implement lunchtime activities for students (peer relationships). 2. Address the overall theme of relationship-building (staff and student relationships).	1. Developed a plan to get students more engaged during lunch. 2. Established student voice planning committee to plan activities for 2015/16; administrative team met with classified staff to offer ways to improve the front-office climate. 3. Trained teachers on best practices in working with students who face trauma; gave classroom presentations on stress management as a way to help with coping skills (overall climate).

Note: Terms in parentheses indicate school climate theme addressed.

Source: Authors' summaries of action-planning items and interview data collected for the study.

Appendix C. Ancillary analyses of student surveys

This appendix shows student survey results for surveys administered 1 week before the student listening circle (SLC), 1 week after it (table C1), and 12 weeks after it (table C2), for the total sample and by intervention status. The results indicate that average student perceptions of school climate and competencies prior to the student listening circle did not statistically differ one week later for either the control group or the intervention group. At 12 weeks after the student listening circle, students in both intervention and control groups reported that higher percentages of staff who attended the student listening circle knew their names than had known them prior to the student listening circle. Students in the intervention group, but not those in the control group, reported higher average levels of participation in decisionmaking and greater average levels of comfort talking with staff participants in the student listening circles at the 12-week follow-up than in the pretest. Although students in the intervention group experienced a statistically significant increase in participation in decisionmaking, the increase was not statistically significantly greater than that experienced by students in the control group. Thus perceptions of decisionmaking opportunities did not increase more among students in the intervention group than among students in the control group. The statistically significant increase in intervention students' comfort level when talking with staff participants in the student listening circles is consistent with the experimental results in table 4 in the main text (see endnote 2). Both groups reported lower average levels of student competency for school improvement and academic self-efficacy at the 12-week follow-up compared with their reported competencies prior to the student listening circle.

With the exception of perceptions that staff SLC participants knew students' names, the results do not suggest that all participating students experienced gains with respect to perceptions of school climate and competencies after the student listening circle.

Table C1. Results of the student surveys conducted 1 week before and 1 week after participation in a student listening circle, 2015

Student outcome measure	Means		Difference between pretest and posttest			Student sample size
	Pretest (standard deviation)	Posttest (standard deviation)	Difference[a] (standard error)	*p*-value	Standardized difference	
School climate perceptions						
Student participation in decisionmaking						
All	2.19	2.23	0.04	.45	0.06	227
	(0.66)	(0.65)	(0.03)			
Control group	2.18	2.23	0.05	.45	0.07	144
	(0.66)	(0.65)	(0.04)			
Intervention group	2.19	2.22	0.03	.69	0.04	83
	(0.66)	(0.66)	(0.06)			
Student–staff relationships						
Knows name (SLC staff[b])						
All	0.41	0.38	–0.02	.40	–0.08	229
	(0.26)	(0.22)	(0.01)			
Control group	0.40	0.37	–0.02	.39	–0.08	145
	(0.25)	(0.22)	(0.02)			
Intervention group	0.42	0.40	–0.02	.49	–0.07	84
	(0.28)	(0.23)	(0.02)			

(continued)

Table C1. Results of the student surveys conducted 1 week before and 1 week after participation in a student listening circle, 2015 *(continued)*

Student outcome measure	Means		Difference between pretest and posttest			Student sample size
	Pretest (standard deviation)	Posttest (standard deviation)	Difference[a] (standard error)	*p*-value	Standardized difference	
Comfort talking (SLC staff[b])						
All	2.49	2.59	0.10	.22	0.09	222
	(1.08)	(1.06)	(0.05)			
Control group	2.51	2.56	0.06	.53	0.05	143
	(1.07)	(1.05)	(0.06)			
Intervention group	2.47	2.64	0.17	.23	0.15	79
	(1.11)	(1.09)	(0.10)			
Caring relationships						
All	3.20	3.22	0.02	.68	0.04	229
	(0.63)	(0.66)	(0.03)			
Control group	3.19	3.21	0.02	.76	0.03	145
	(0.62)	(0.63)	(0.04)			
Intervention group	3.21	3.24	0.03	.61	0.05	84
	(0.64)	(0.71)	(0.05)			
School bonding						
All	2.91	2.87	–0.04	.13	–0.08	227
	(0.58)	(0.60)	(0.02)			
Control group	2.93	2.88	–0.05	.16	–0.10	144
	(0.54)	(0.57)	(0.03)			
Intervention group	2.89	2.86	–0.03	.37	–0.05	83
	(0.65)	(0.64)	(0.04)			
Peer support						
All	2.57	2.54	–0.03	.50	–0.05	229
	(0.66)	(0.63)	(0.03)			
Control group	2.60	2.58	–0.02	.65	–0.03	145
	(0.64)	(0.61)	(0.04)			
Intervention group	2.52	2.47	–0.05	.43	–0.08	84
	(0.68)	(0.66)	(0.06)			
Competencies						
School improvement efficacy						
All	2.86	2.80	–0.06	.09	–0.11	227
	(0.50)	(0.57)	(0.03)			
Control group	2.87	2.79	–0.09	.14	–0.18	144
	(0.48)	(0.57)	(0.04)			
Intervention group	2.83	2.83	0.00	.90	–0.01	83
	(0.52)	(0.56)	(0.04)			
Academic self-efficacy						
All	3.73	3.68	–0.05	.06	–0.06	226
	(0.82)	(0.80)	(0.03)			
Control group	3.73	3.67	–0.06	.06	–0.07	142
	(0.80)	(0.80)	(0.04)			
Intervention group	3.74	3.70	–0.05	.38	–0.05	84
	(0.86)	(0.81)	(0.05)			

a. Differences shown in this column may vary from differences calculated from data in the table because of rounding.

b. SLC staff are staff members who participated in the student listening circle.

Note: Higher numbers indicate more positive perceptions of school climate and competencies (see table 1 in the main text for descriptions of the student outcome measures). *P*-values are based on a regression model that accounted for clustering of observations within schools. No results were statistically significant.

Source: Authors' analysis of primary data collected for the study through surveys.

Table C2. Results of the student surveys conducted 1 week before and 12 weeks after participation in a student listening circle, 2015

Student outcome measure	Means		Difference between pretest and follow-up			Student sample size
	Pretest (standard deviation)	Posttest (standard deviation)	Difference[a] (standard error)	*p*-value	Standardized difference	
School climate perceptions						
Student participation in decisionmaking						
All	2.17	2.20	0.03	.53	0.05	229
	(0.65)	(0.65)	(0.04)			
Control group	2.16	2.14	–0.02	.74	–0.03	144
	(0.65)	(0.63)	(0.04)			
Intervention group	2.19	2.30	0.12*	.05	0.18	85
	(0.66)	(0.67)	(0.06)			
Student–staff relationships						
Knows name (SLC staff[b])						
All	0.40	0.46	0.06*	.00	0.22	228
	(0.26)	(0.27)	(0.01)			
Control group	0.39	0.44	0.05*	.01	0.20	143
	(0.25)	(0.26)	(0.01)			
Intervention group	0.43	0.50	0.07*	.00	0.25	85
	(0.28)	(0.28)	(0.02)			
Comfort talking (SLC staff[b])						
All	2.50	2.58	0.08	.32	0.07	222
	(1.08)	(1.12)	(0.05)			
Control group	2.49	2.48	–0.01	.89	–0.01	141
	(1.06)	(1.10)	(0.07)			
Intervention group	2.52	2.76	0.24*	.03	0.21	81
	(1.13)	(1.14)	(0.09)			
Caring relationships						
All	3.18	3.17	–0.01	.80	–0.02	230
	(0.65)	(0.73)	(0.04)			
Control group	3.16	3.16	0.00	.99	0.00	145
	(0.65)	(0.70)	(0.05)			
Intervention group	3.20	3.17	–0.03	.61	–0.05	85
	(0.66)	(0.78)	(0.06)			
School bonding						
All	2.91	2.87	–0.04	.22	–0.07	230
	(0.59)	(0.57)	(0.03)			
Control group	2.92	2.87	–0.06	.24	–0.10	145
	(0.55)	(0.57)	(0.03)			
Intervention group	2.90	2.87	–0.02	.56	–0.03	85
	(0.66)	(0.59)	(0.04)			
Peer support						
All	2.57	2.50	–0.06	.17	–0.10	229
	(0.67)	(0.63)	(0.03)			
Control group	2.59	2.54	–0.05	.27	–0.07	144
	(0.66)	(0.61)	(0.04)			
Intervention group	2.53	2.44	–0.09	.28	–0.13	85
	(0.70)	(0.66)	(0.07)			

(continued)

Table C2. Results of the student surveys conducted 1 week before and 12 weeks after participation in a student listening circle, 2015 *(continued)*

Student outcome measure	Means		Difference between pretest and follow-up			Student sample size
	Pretest (standard deviation)	Posttest (standard deviation)	Difference[a] (standard error)	*p*-value	Standardized difference	
Competencies						
School improvement efficacy						
All	2.85	2.76	–0.10*	.03	–0.19	229
	(0.50)	(0.60)	(0.03)			
Control group	2.85	2.75	–0.10	.08	–0.21	144
	(0.49)	(0.59)	(0.04)			
Intervention group	2.86	2.77	–0.09	.07	–0.16	85
	(0.53)	(0.62)	(0.05)			
Academic self-efficacy						
All	3.74	3.63	–0.11*	.01	–0.14	229
	(0.82)	(0.84)	(0.03)			
Control group	3.72	3.62	–0.09*	.05	–0.11	145
	(0.82)	(0.85)	(0.04)			
Intervention group	3.77	3.63	–0.14*	.01	–0.17	84
	(0.84)	(0.82)	(0.06)			

* Statistically different from zero at $p < .05$ based on a two–tailed test.

a. Differences shown in this column may vary from differences calculated from data in the table because of rounding.

b. SLC staff are staff members who participated in the student listening circle.

Note: Higher numbers indicate more positive perceptions of school climate and competencies (see table 1 in the main text for descriptions of the student outcome measures). *P*–values are based on a regression model that accounted for clustering of observations within schools.

Source: Authors' analysis of primary data collected for the study through surveys.

Appendix D. Student and staff surveys

This appendix includes the surveys administered to students and staff who participated in the study.

Student survey

Student Listening Circle Study
Student Consent Form

Dear Student,

You are being asked to participate in a survey that asks questions about you and your experience at school. It will take about 30 minutes to answer the questions.

The survey is voluntary. You do not have to complete this survey.

The questions we will ask are only about what you think. There are no right or wrong answers because this is not a test.

Taking the survey is up to you; no one will be upset if you don't sign this paper or if you change your mind later.

Thank you.

YES, I agree to fill out the Student Listening Circle surveys.

Print Your First and Last Name: _____

Today's Date: _____

After printing your name and today's date please remove this page from the survey booklet and return it to the survey administrator.

Dear SLC Student Survey Participant,

If you are willing to take the survey, please make sure you wrote your name and today's date on the previous sheet and returned it to the survey administrator. That page is kept separate from the survey so that your name is not on the survey with your answers. Your answers will be kept private!

You do not have to answer these questions, but we hope you will. Skip any question you don't want to answer.

Please read every question carefully. Fill in the bubble on only one answer unless the question asks you to mark all answers that apply.

Please bubble in your responses directly onto the survey using a #2 pencil.

Thank you for taking the survey!

1. What grade are you in now?
   - ○ 6th grade
   - ○ 7th grade
   - ○ 8th grade

2. Last year, did you attend the same school as now?
   - ○ No
   - ○ Yes

3. What is your sex?
   - ○ Female
   - ○ Male

4. Are you of Hispanic or Latino origin?
   - ○ No
   - ○ Yes

5. Which one of these groups BEST describes you? **(Mark only ONE answer.)**
   - ○ American Indian or Alaska Native
   - ○ Asian
   - ○ Black or African American
   - ○ Native Hawaiian or Pacific Islander
   - ○ White
   - ○ Mixed (two or more) races

6. During the past 12 months, how would you describe the grades you mostly received in school?
   - ○ Mostly A's
   - ○ Mostly A's and B's
   - ○ Mostly B's
   - ○ Mostly B's and C's
   - ○ Mostly C's
   - ○ Mostly C's and D's
   - ○ Mostly D's
   - ○ Mostly F's

How strongly do you disagree or agree with the following statements?

7. I feel like a real part of this school.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

8. Sometimes I don't feel as if I belong at this school.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

9. I am included in lots of activities at this school.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

10. I feel very different from most students here.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

11. I wish I were in a different school.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

12. I feel proud to belong to this school.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

13. In our school, students are given a chance to help make decisions.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

14. Students in this school have a say in how things work.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

15. Students get to help decide some of the rules in this school.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

16. Teachers ask students what they want to learn about.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

17. Students help decide how class time is spent.
    - ⬭ Strongly disagree
    - ⬭ Disagree
    - ⬭ Agree
    - ⬭ Strongly agree

18. I enjoy participating at school because I want to have as much say in my school as possible.
    - ⬭ Strongly disagree
    - ⬭ Disagree
    - ⬭ Agree
    - ⬭ Strongly agree

19. Students like me can really understand what's going on with my school.
    - ⬭ Strongly disagree
    - ⬭ Disagree
    - ⬭ Agree
    - ⬭ Strongly agree

20. I feel like I have a pretty good understanding of the important issues which confront my school.
    - ⬭ Strongly disagree
    - ⬭ Disagree
    - ⬭ Agree
    - ⬭ Strongly agree

21. Students like me have the ability to participate effectively in school activities and decisionmaking.
    - ⬭ Strongly disagree
    - ⬭ Disagree
    - ⬭ Agree
    - ⬭ Strongly agree

22. My opinion is important because it could someday make a difference in my school.
    - ⬭ Strongly disagree
    - ⬭ Disagree
    - ⬭ Agree
    - ⬭ Strongly agree

23. There are plenty of ways for students like me to have a say in what our school does.
    - ⬭ Strongly disagree
    - ⬭ Disagree
    - ⬭ Agree
    - ⬭ Strongly agree

24. It is important to me that I actively participate in student issues.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

25. Most school leaders would listen to me.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

26. Many school activities are important to participate in.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

27. At my school, there is a teacher or some other adult who really cares about me.
    - ○ Not at all true
    - ○ A little true
    - ○ Pretty much true
    - ○ Very much true

28. At my school, there is a teacher or some other adult who tells me when I do a good job.
    - ○ Not at all true
    - ○ A little true
    - ○ Pretty much true
    - ○ Very much true

29. At my school, there is a teacher or some other adult who notices when I am not there.
    - ○ Not at all true
    - ○ A little true
    - ○ Pretty much true
    - ○ Very much true

30. At my school, there is a teacher or some other adult who always wants me to do my best.
    - ○ Not at all true
    - ○ A little true
    - ○ Pretty much true
    - ○ Very much true

31. At my school, there is a teacher or some other adult who listens to me when I have something to say.
    - ○ Not at all true
    - ○ A little true
    - ○ Pretty much true
    - ○ Very much true

32. At my school, there is a teacher or some other adult who believes that I will be a success.
    - ⬭ Not at all true
    - ⬭ A little true
    - ⬭ Pretty much true
    - ⬭ Very much true

Think about students your age (not just your closest friends) at your school. Mark how true each of the following statements is for you (if unsure, make your best guess).

33. Students my age really care about what happens to me.
    - ⬭ Not at all true
    - ⬭ A little true
    - ⬭ Pretty much true
    - ⬭ Very much true

34. Students my age are there for me whenever I need help.
    - ⬭ Not at all true
    - ⬭ A little true
    - ⬭ Pretty much true
    - ⬭ Very much true

35. Students my age can be trusted a lot.
    - ⬭ Not at all true
    - ⬭ A little true
    - ⬭ Pretty much true
    - ⬭ Very much true

36. Students my age care about my feelings.
    - ⬭ Not at all true
    - ⬭ A little true
    - ⬭ Pretty much true
    - ⬭ Very much true

37. Students my age only think about themselves.
    - ⬭ Not at all true
    - ⬭ A little true
    - ⬭ Pretty much true
    - ⬭ Very much true

38. Students my age think bad things about me.
    - ⬭ Not at all true
    - ⬭ A little true
    - ⬭ Pretty much true
    - ⬭ Very much true

For the next questions, please rate how well you can do the following:

39. How well can you get teachers to help you when you get stuck on homework?
    - ○ Not at all
    - ○
    - ○
    - ○
    - ○ Very well

40. How well can you study when there are other interesting things to do?
    - ○ Not at all
    - ○
    - ○
    - ○
    - ○ Very well

41. How well can you study a chapter for a test?
    - ○ Not at all
    - ○
    - ○
    - ○
    - ○ Very well

42. How well can you succeed in finishing all your homework every day?
    - ○ Not at all
    - ○
    - ○
    - ○
    - ○ Very well

43. How well can you pay attention during every class?
    - ○ Not at all
    - ○
    - ○
    - ○
    - ○ Very well

44. How well can you succeed in understanding all subjects in school?
    - ○ Not at all
    - ○
    - ○
    - ○
    - ○ Very well

45. How well can you succeed in satisfying your parents with your homework?
    - ○ Not at all
    - ○
    - ○
    - ○
    - ○ Very well

46. How well can you succeed in passing a test?
    - ○ Not at all
    - ○
    - ○
    - ○
    - ○ Very well

For each adult at your school listed below, mark one answer for Part A and one answer for Part B.

Part A

I am certain that she/he knows my name

47. Ms. _____
    - ○ No
    - ○ Yes
    - ○ I don't know this person

48. Mr. _____
    - ○ No
    - ○ Yes
    - ○ I don't know this person

49. Ms. _____
    - ○ No
    - ○ Yes
    - ○ I don't know this person

<list of names continues until all staff are listed>

Part B

Please rate how comfortable you would be talking to her/him one–on–one about things that are bothering you?

50. Ms. _____
    - ○ Not at all
    - ○
    - ○
    - ○
    - ○ Very

51. Mr. _____
    - ○ Not at all
    - ○
    - ○
    - ○
    - ○ Very

52. Ms. _____
    - ○ Not at all
    - ○
    - ○
    - ○
    - ○ Very

<list of names continues until all staff are listed>

Student Listening Circle Study
Consent Form for Adult Participation

Please complete this page and return it to the SLC Coordinator.

Adult participation involves:

Completion of surveys on three different occasions (15 minutes per survey).

Adult student listening circle invitee, please check the appropriate statement below and sign and return this page to the SLC Coordinator.

____ YES, I am willing to participate in the Student Listening Circle Study.

____ NO, I am not willing to participate in the Student Listening Circle Study.

Signature: _____

Date: _____

Name (Please Print): _____

Email Address (Used only to send follow–up surveys): _____

Please return this page to the survey proctor.

Student Listening Circle Study
Consent to participate

Student Listening Circle Adult Survey

Dear SLC Adult Participant,

- This survey asks questions about things you think, feel, and do.
- There are no right or wrong answers.
- You do not have to answer these questions, but we hope you will. Skip any question you don't want to answer.
- Do not write your name on this paper. We want your answers to stay private!
- Please read every question carefully. Bubble in only one answer unless the question asks you to mark all answers that apply.

Please bubble in your responses directly onto the survey using a #2 pencil.

Thank you for taking this survey!

1. What is your role(s) at this school? (*Mark all that apply.*)
   - ○ Teacher—grade 6
   - ○ Teacher—grade 7
   - ○ Teacher—grade 8
   - ○ Parent of student in school
   - ○ Special education teacher
   - ○ Administrator
   - ○ Prevention staff nurse or health aide
   - ○ Counselor, psychologist
   - ○ Police, resource officer, or safety personnel
   - ○ Paraprofessional, teacher assistant, or instructional aide
   - ○ Other certificated staff (e.g., librarian)
   - ○ Other classified staff (e.g., janitor, secretarial or clerical, food service)
   - ○ Other service provider (e.g., speech, occupational, or physical therapist)
   - ○ Community member not employed by school district
   - ○ Other, please specify: _____

How strongly do you disagree or agree with the following statements?

2. Students share their concerns with me.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

3. Students ask for comfort or support when needed.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

4. Students express their feelings to me.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

5. Students talk with me about their homes and families.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

6. Students talk openly to teachers and staff.
   - ○ Strongly disagree
   - ○ Disagree
   - ○ Agree
   - ○ Strongly agree

7. Students are motivated to improve the school.
   - ⬭ Strongly disagree
   - ⬭ Disagree
   - ⬭ Agree
   - ⬭ Strongly agree

8. Students work well together.
   - ⬭ Strongly disagree
   - ⬭ Disagree
   - ⬭ Agree
   - ⬭ Strongly agree

9. Students collaborate with each other.
   - ⬭ Strongly disagree
   - ⬭ Disagree
   - ⬭ Agree
   - ⬭ Strongly agree

10. Students have a lot to contribute in school improvement decisions.
   - ⬭ Strongly disagree
   - ⬭ Disagree
   - ⬭ Agree
   - ⬭ Strongly agree

11. Students respect the environment and are well-mannered toward others.
   - ⬭ Strongly disagree
   - ⬭ Disagree
   - ⬭ Agree
   - ⬭ Strongly agree

12. Students participate actively in school activities.
   - ⬭ Strongly disagree
   - ⬭ Disagree
   - ⬭ Agree
   - ⬭ Strongly agree

13. Students collaborate with teachers and staff to improve the school.
   - ⬭ Strongly disagree
   - ⬭ Disagree
   - ⬭ Agree
   - ⬭ Strongly agree

14. Students have unique perspectives about barriers to learning.
   - ⬭ Strongly disagree
   - ⬭ Disagree
   - ⬭ Agree
   - ⬭ Strongly agree

15. Students offer constructive feedback about the school environment.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

16. This school encourages opportunities for students to decide things like class activities or rules.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

17. This school gives all students equal opportunity to participate in numerous extracurricular and enrichment activities.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

18. This school gives students opportunities to "make a difference" by helping other people, the school, or the community.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

19. In this school, students are given a chance to help make decisions.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

20. Students are involved in helping to solve school problems.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

21. The principal asks students about their ideas.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

22. Students in this school are reliable.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

23. Students in this school can be counted on.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

24. The students in this school have to be closely supervised.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

25. Students are caring toward one another.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

26. Students here are secretive.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

27. Students in this school cheat if they have a chance.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

28. Students in this school can be counted on to do their work.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

29. The students in this school talk freely about their lives outside of school.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

30. I believe that I am helping kids become independent learners.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

31. I believe that I am empowering students.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

32. I feel that I am involved in an important program for children.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

33. I see students learn.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

34. I believe that I have the opportunity to grow by working daily with students.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

35. I perceive that I am making a difference.
    - ○ Strongly disagree
    - ○ Disagree
    - ○ Agree
    - ○ Strongly agree

Thank you for taking this survey!

Notes

1. California was one of 11 states selected by the U.S. Department of Education to receive a Safe and Supportive Schools grant in October 2010. This four-year grant supported development of a statewide school climate measurement system and the implementation of targeted programmatic interventions to address school safety and bullying, substance abuse, positive relationships, other learning supports, and student engagement in school.
2. Students in the intervention group reported greater levels of comfort talking with SLC staff 12 weeks after SLC implementation than did students in the control group at the .02 significance level, but the difference was no longer statistically significant after an adjustment to compensate for the effects of conducting multiple statistical tests.
3. Although the results in table 4 represent regression-adjusted differences between the intervention and control group at a single point in time, the difference score represents the intervention/control group difference in change between pretest and follow-up because the impact model includes the pretest score as a covariate.
4. Students in the intervention group (but not in the control group) reported greater increases in perceptions of participation in decisionmaking at school and more comfort talking with staff participants in the student listening circles 12 weeks after the listening circle. These intervention/control group differences were not statistically significant after accounting for the increased probability of finding statistically significant differences due to the number of statistical tests conducted.
5. Dichotomous variables representing each stratification category were included in the impact analysis models to account for the unequal random assignment probabilities for boys and girls.
6. In two schools, because of late arrivals of students on the day of the student listening circle, a replacement student was randomly selected to participate when eight intervention group students were already available. This resulted in nine SLC participants —eight intervention group students and one replacement student in these schools.
7. Because students in the replacement pool were randomly selected, they could have been transferred to the intervention group for data analyses without biasing comparisons between groups. Nevertheless, replacement students were kept in their original random assignment group as a conservative approach. The results were unchanged when replacement students were treated as intervention group students in the analysis.
8. To ease the survey burden, the grid system listed a maximum of 44 school staff. If this number was insufficient to accommodate all school staff, the survey listed all SLC adult participants who were school staff and randomly selected staff members until 44 slots on the questionnaire were filled.
9. The scale developed by Peterson et al. (2011) includes five level-of-agreement response options. For this study, the neutral option (neither agree nor disagree) was dropped, resulting in four response options.
10. The California School Climate, Health, and Learning Survey and Alaska School Climate and Connectedness Survey student involvement items have not previously been combined to form a summary measure. Therefore, evidence regarding reliability of this new seven-item scale is not available. Factor analyses conducted to determine whether these seven items measure a single dimension of student opportunities for meaningful involvement indicated that these seven items do measure a single dimension.

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