School Climate Community Scale: Report on Construct Validity and Internal Consistency

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Abstract

This article provides a preliminary report on the construct validity and internal consistency of the *Community Scale*. The *Community Scale* was developed to acknowledge the perceptions of community members and to promote a student-led *School Community Partnership Process* within the larger context of school climate improvement efforts. A brief history of the development of the *Community Scale* provides context for the current study of its psychometric properties. Results relating to factor analyses and reliability coefficients based on data collected from community members associated with two schools in Illinois, one school in Connecticut, and one school in Minnesota are then presented. Findings show that the *Community Scale* (version 2.0) measures two dimensions of school–community collaborations and support. The scale shows acceptable construct validity and acceptable to good internal consistency, with scope for even stronger psychometric properties as the scale is refined further.

Key Words: school–community partnership, community scale, school climate, community engagement

Introduction

School climate, which refers to the quality and character of school life, is based on patterns of student, parent, and school personnel experiences of school life and reflects norms, goals, values, interpersonal relationships,

teaching and learning practices, and organizational structures (National School Climate Council, 2007). School climate improvement efforts have been garnering significant and growing support in the U.S. for at least four overlapping reasons. First, a growing body of empirical research supports the idea that school climate reform positively shapes academic learning as well as risk prevention and can have health and mental health promotion effects (Berkowitz, Moore, Astor, & Benbenishty, 2016; Cohen, McCabe, Michelli, & Pickeral, 2009; National Academies of Sciences, Engineering, and Medicine, 2016; Thapa, Cohen, Higgins-D'Alessandro, & Guffey, 2013). Second, the Centers for Disease Control recognizes that bully–victim–bystander behavior is a public health problem, and a school climate improvement effort can be an effective prevention strategy for such behavior (American Educational Research Association, 2013; Cohen, Espelage, Twemlow, Berkowitz, & Comer, 2015). Third, the federal education and justice departments have recognized that high school dropout rates are unacceptably and powerfully contributing to the "high school to prison pipeline" and that school climate reform, including the engagement of students and groups who may previously have felt marginalized, is one of the most effective prevention strategies for this (Morgan, Salomon, Plotkin, & Cohen, 2014; Thapa et al., 2013). Finally, the 2015 Every Student Succeeds Act mandates that all state departments of education measure "nonacademic" as well as academic aspects of student learning and/or school life (U.S. Department of Education, 2016).

School climate improvement efforts are also garnering attention because they are aligned with findings from implementation science. Implementation science is the study of factors that influence the full and effective use of innovations in practice (National Implementation Research Network, 2017). In K–12 education, implementation science typically refers to an effective school improvement process. School improvement-related implementation science findings underscore that "top down" principal/superintendent leadership does not effectively support school improvement efforts. Effective school reform initiatives are grounded in school leaders igniting the intrinsic motivation of students, parents, school personnel, and even community members to learn and work together in a continuous process of learning and development (Blase, van Dyke, & Fixsen, 2013; Bryk, Gomez, Grunow, & LeMahieu, 2015; Bryk & Schneider, 2002; Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010; Fullan, 2011). Fostering greater engagement in general and particularly on the part of students (as well as parents and school personnel) who have felt marginalized seems to be one of the potentially transformational aspects of school climate improvement efforts (American Educational Research Association, 2013; Cohen, 2006; Lawson & Lawson, 2013).

These findings contribute to a growing appreciation that, whatever the prosocial "label" (e.g., character education, social/emotional learning, service learning, school climate), an effective prosocial improvement process is a continuous schoolwide *and* instructional improvement effort that involves the whole community (Bryk et al., 2015; Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). Current school climate improvements efforts, however, do not often recognize the "voice" of community members and leaders or foster meaningful school–family–community partnership. Ideally, school climate reform includes students, parents, school personnel, and community members who learn and work together to create even safer, more engaging, healthier climates for learning that support school and life success (Brown, Corrigan, & Higgins-D'Alessandro, 2012).

The field has frequently indicated how school climate improvement is identified as a process that mobilizes the "whole village" to support the "whole child" (Cohen, 2006). Through acknowledging the importance of school–community partnerships and community members' perspectives, one can mobilize the whole village to support student engagement and learning. Therefore, to support school climate improvement efforts becoming school–family–community efforts, the National School Climate Center developed the *Community Scale* and the youth–led *School Community Partnership Process*[1] in 2012. In addition, the *Scale* and *Process* were developed, in part, because one of the most common school climate findings is that students report feeling significantly less safe in schools than educators and parents had realized (Cohen, 2006). Furthermore, this finding is almost always rooted in prevalent and problematic social norms that covertly support bully–victim–bystander behavior. The idea was put forward that community members and leaders could potentially complement school-based bullying prevention efforts. For example, it was our understanding that if faith-based and civic leaders, local media, and community members in general talk about what it means to be a "witness" when we see someone being hurt and/or hurting, this would help all members of the community understand their personal power to act as "upstanders," socially responsible citizens who work together to stand strong against bullying and other unsafe behavior.

The *School Community Partnership Process* and the *Community Scale*

The youth-led[2] *School Community Partnership Process* engages youth (sometimes elementary school students paired with high school students, but more often middle and/or high school students) to ask community members and

leaders in 15 sectors of the larger school community specific questions from a brief *Community Scale* survey. Recognizing and building on Public Education Network's (PEN) *Civic Index* research and findings, the *Process* similarly targets faith-based organizations, local media, law enforcement, senior citizens, civic leaders, and many other groups. The *Scale* and *Process* are designed to further three overlapping goals: to understand what community members and leaders think about current school–family–community partnerships, to further youth engagement and intergenerational school improvement efforts, and to engage community members in partnership with youth leaders to work to create even safer, more supportive, more engaging, healthier climates for learning. The *Scale* and the *Process* are anchored to the notion that igniting the intrinsic motivation of students to be "co-learners and co-leaders" in improvement efforts is helpful and powerful for them. Both the *Scale* and the *Process* support strategic intergenerational leadership (Fullan, 2011) and support the notion that effective school improvement models must proactively promote community engagement as an explicit goal and process (Lawson & Lawson, 2013).

The *Process* is also informed by the important work of Joyce Epstein and the National Network of Partnership Schools at John Hopkins University. This research and practice-based network has underscored that schools really do need the support of the larger community to support students' healthy development and capacity to learn. A series of concrete improvement strategies support this foundational process (see Epstein, 2011; Hutchins, Greenfeld, Epstein, Sanders, & Galindo, 2012). Ice, Thapa, and Cohen (2015) include a description of the *Process* and how it unfolded in a project in Connecticut.

Development of the *Community Scale*

Version 1.0

The *Community Scale* was developed by the National School Climate Center to incorporate school–community partnership into school climate assessment and improvement processes. Other surveys of community members' perceptions on schools and community resources were researched and reviewed. Although various school–community assessment tools exist (Epstein, 2011), we did not discover any surveys designed to recognize the "voice" of community members and leaders and to foster meaningful school–community partnerships. Therefore, a set of school climate perception questions drawn from the National School Climate Center's *Comprehensive School Climate Inventory* version 3.0 (Guo, Choe, & Higgins-D'Alessandro, 2011)[3] was included in the *Scale* to assess the reliability of community members' perceptions of school climate and to further communicate to community members the importance

of their voice and relationship to local schools. Although the *Process* was built on PEN's *Civic Index*, the initial version of the *Scale* was primarily yoked to the *Comprehensive School Climate Inventory*. This version of the *Scale* was thus intentionally developed to complement and extend the scope of the *Comprehensive School Climate Inventory*, which captures perceptions related to school climate from students, parents/guardians, and school personnel. All 25 questions in the *Scale* were related to one of the following dimensions: rules and norms, physical security, social and civic learning, respect for diversity, school connectedness and engagement, physical surroundings, leadership, or community involvement. The response scale used for all 25 questions was a five-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. Ice et al. (2015) provide the full details of all specifics included in *Community Scale* version 1.0.

Version 2.0

Based on several reviews of *Community Scale* version 1.0 and feedback from the experts (further described in the Content Validity section of this article), it was decided that the *Scale* should focus more on (1) school–community linkages, and (2) support. This suggestion by the experts was prompted by two overarching aims: to sharpen the focus of the *Scale* and align it with findings from the empirical literature about the importance of community involvement in school improvement processes; and to remove redundancies, as it was pointed out that some or many of the schools interested in the *Scale* would most likely use the *Comprehensive School Climate Inventory*, as well. As a result, it was decided to remove questions that had been borrowed from the *Comprehensive School Climate Inventory*, and new questions were added to tap into the above-mentioned two new focal dimensions. Each of the 12 items included in the new *Community Scale* version 2.0 belongs to one of these two dimensions: school–community collaborations or community support (see Table 1). The construct validity and internal reliability of *Community Scale* version 2.0 are the subject of the research described in this article.

Table 1. Community Scale 2.0: Items by Factor and Descriptive Statistics

Item #	Item	Factor	Mean (SD)*
1	Members of our community feel responsible for ensuring these schools provide a quality education to their students.	School–Community Collaborations	3.91 (1.04)
4	These schools engage students in projects that directly involve collaboration with community organizations.	School–Community Collaborations	3.84 (1.09)
5	Students in these schools learn valuable skills by spending class time on a project in our community (community garden, recycling project, etc.)	School–Community Collaborations	3.74 (0.98)
6	These schools are interested in working with community organizations to support the school's improvement efforts.	School–Community Collaborations	3.85 (0.95)
7	These schools and community organizations frequently work together.	School–Community Collaborations	3.74 (0.93)
9	These schools work with community organizations from a variety of different sectors and backgrounds.	School–Community Collaborations	3.65 (0.90)
10	These schools communicate information effectively with the community.	School–Community Collaborations	3.57 (1.01)
11	These schools seek community members' opinions on school decisions.	School–Community Collaborations	3.45 (1.02)
12	These schools and community members share the same priorities and goals for the school.	School–Community Collaborations	3.53 (0.97)
2	This past year, I have supported these schools (participated in fundraisers, attended events, donated time/resources, expertise, etc.).	Support	4.02 (1.09)
3	I am interested in working with educators and/or students to support these schools' improvement efforts.	Support	3.98 (0.97)
8	I believe that effective school–community partnerships support students.	Support	4.22 (0.81)

*Standard Deviations in parentheses

Method

Participants

Analysis of *Community Scale* version 2.0 is based on a sample of 516 responses from community members associated with two schools in Illinois, one school in Connecticut, and one school in Minnesota. Participants were recruited based on the guidance of the school climate coordinator in their respective schools as well as the availability and interest of the community members (see Ice et al., 2015). Among the participants, 64% were female, and the three largest age groups represented were 40 to 65 (45%), 25 to 40 (35%), and 65 and above (11%). In terms of race/ethnicity, a majority of the participants were White (72%); Hispanics represented 21%. The demographics of the communities represented were very similar to this. A large number of the participants had lived in the community for more than 20 years (49%); 23% had lived in the community for 11 to 20 years. With regards to their primary role, 34% specified "resident only," 21% specified "other," and 14% specified "business." Details on participants' demographic information and their stated roles are provided in Tables 2 and 3, respectively.[4]

Table 2. Demographics of Community Members in the Sample

	Count	Percentage
Gender		
Male	188	36.4
Female	328	63.6
Age Group		
Under 18	14	2.7
18 - 24	34	6.6
25 - 40	179	34.8
40 - 65	233	45.2
65+	55	10.7
Ethnicity		
American Indian	6	1.2
Asian	9	1.7
Black	7	1.4
Hispanic	109	21.2
White	373	72.4
Multiracial	7	1.4
Other/Not listed above	4	0.8

# of Years in the Community		
0 -1	35	6.8
2 – 5	47	9.2
6 – 10	60	11.7
11 – 20	117	22.9
21 +	251	49.1

Table 3. Primary Role of the Participants in the Community

	Count	Percentage
Resident only	175	34.2
Faith-based	27	5.3
Law enforcement	25	4.9
Civic organizations	29	5.7
Philanthropic	1	0.2
Higher education	10	2.0
School board	10	2.0
Business	69	13.5
Elected officials/policy makers	16	3.1
Health/mental health	36	7.0
The arts	9	1.8
Media	6	1.2
Public library/public agencies	28	5.5
Social services	9	1.8
Other	62	21.1

Notes: The sectors identified here build on PEN's *Civic Index* research and findings; "Residents only" include those who are not affiliated to other sectors below (e.g., senior citizens).

Construct Validity

Validity is a composite indicator of the extent to which an instrument measures the attribute it was designed to measure and the extent to which inferences and interpretations made based on participants' scores are accurate and meaningful (Chatterji, 2003). This section comprises descriptions of content validity and factor analysis.

Content Validity[5]

A review of the literature revealed that virtually no community metrics had been designed to evaluate the two primary goals of our intended scale when we set forth to improve version 1.0: (1) to understand what community members and leaders thought about current school–community partnerships, and (2) to

understand to what extent community members and leaders were interested in learning about and actively supporting the school's improvement goals. The one exception was PEN's *Civic Index*. Since our needs and goals aligned with theirs, we built our construct and related questions for *Community Scale* version 2.0 on PEN's *Civic Index*.

PEN's *Civic Index* grew out of a multiyear effort to document, research, and strengthen the public's responsibility for K–12 schools in the United States. PEN developed the *Civic Index* in partnership with *Education Week* to assess the progress that communities were making to further the following foundational school–community goals: enhancing parental expectations and involvement; strengthening civic responsibility; and bolstering the infrastructure of local community, business, and parent groups to lead to better quality education for all young people (A. F. Fege, personal communication, October 12, 2016). The Annenberg Foundation, Ford Foundation, and MetLife supported the development of the *Civic Index* over a five-year period (Petrovich, 2008). As typically occurs in a survey development process, through a series of iterative steps the questions were tested, evaluated, and revised in 2004 through 2006. Four test sites were used (Denver, CO; Mon Valley, PA; Seattle, WA; Charleston, WV), including thousands of participants. SEDL and 22 PEN *Civic Index* Advisors[6] contributed to this process (A. F. Fege, personal communication, October 12, 2016; Public Education Network, 2005).

Building on these findings and the framework of PEN's *Civic Index*, we delineated two domains for our *Community Scale*. The first domain, school–community collaboration, relates to community members' perceptions about current school–community civic relationships. The second domain, support, focuses on whether community members and leaders were interested in learning about and actively supporting the school's improvement goals. This second domain is based on the understanding that effective school climate improvement is a comprehensive and collaborative process that engages students, parents, school personnel, and community members in learning and working together to create even safer, more supportive, more engaging, healthier climates for learning that support school and life success (American Educational Research Association, 2013; Cohen, 2006; National School Climate Council, 2007). The questions were developed, studied, and refined over time by members of the National School Climate Center as well as their *Community Scale* Development Advisory Board Members.[7]

After the domain-mapping stage, we went on to confirm that the basic ideas that shape the scale—the content, format, scoring, and administration procedures of the survey tool—made sense and were organized according to established research criteria. This step involved review by the same group of

National School Climate Center Advisory Board members and senior National School Climate Center staff who specialize in research or school–community partnerships and/or are civic education leaders in the field. These experts provided detailed feedback about the development of the *Scale*, as well as our plans for using it in the youth–led *School Community Partnership Process*; we revised the *Scale* based on this feedback.

Factor Analysis

We performed factor analysis to examine internal structure validity, ensuring that the postulated indicators were logical by testing whether the items we think represent larger concepts (e.g., school–community collaborations) garnered similar responses. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed using the data mentioned in the Participants section. EFA was performed to explore the number of factors (concepts) the construct comprised. Compared to EFA, CFA constrains each item to have nonzero loadings on its factor (the concept with which we identify it) and to have zero loadings on other factors (all other concepts) and then evaluates how the factor structure performs. The discrepancy between the observed variance–covariance matrix and the reproduced variance–covariance matrix, which is reflected by model fit indices, evaluates how well the hypothesized model explains relationships among the observed variables. These indices and correlations were also calculated to study the internal structure validity of the *Community Scale*.

Reliability

Reliability analysis was performed to check the homogeneity of scores; homogeneous scores reveal internal consistency, which legitimizes the reliability of the construct. Cronbach's alphas, as indicators of internal consistency, were computed for each factor of the *Community Scale* and for the overall *Scale* itself.

Analysis and Findings

Description of the Data and Correlations

Though there was no major issue of missing data, to best serve the purpose of validation, listwise deletion was performed so that an entire record was excluded from analysis if any single value was missing. After cleaning and recoding the data, community members' responses to the 12 items on *Community Scale* version 2.0 were analyzed to calculate mean scores and standard deviations. No item was negatively worded, so there was no need for reverse coding of the items for any analysis. Table1 presents the items and corresponding item

numbers for each of the two factors of the *Scale*, as well as the descriptive statistics of every item in the *Scale*.

Correlations for each item with the rest of the other items in the *Scale* (inter-item correlations) were computed. The Pearson correlation coefficient shows that most of the items have medium correlation with other items, where the coefficients range from 0.21 (between Q2 & Q5) to 0.76 (between Q6 & Q 7).

Validity and Reliability Findings

Exploratory factor analysis[8] was conducted based on the 12 items in version 2.0. EFA is a useful technique to uncover possible clusters of items. Principal Component Method was performed with Oblimin rotation using SPSS 23.0, which suggested two factors: school–community collaborations and community support.

Confirmatory factor analysis was conducted using STATA 14.0 to examine how well the conceptual two-factor model was reflected by the 12 items of *Community Scale* 2.0. An iterative process to improve the CFA model was conducted, referring to lambda estimates and modification indices. Lambda estimates (factor loadings) provide information on how each item relates to its factor. Modification indices provide useful information on how each item relates to other factors and illuminate possible double loading problems. The decision to delete a single item is made if it loads too little on its own factor or if it loads too much on at least one other factor. In addition, the item should be consistent conceptually with other items under the same factor. The factor loadings[9] of the two factors and 12 items ranged from 0.54 to 0.83. Overall, the factor loadings were good; standardized factor loadings are provided in Table 4.

Table 4. Standardized Factor Loadings

Factors	Item #	Standardized Factor Loadings
F1. Collaboration	Q1	0.54
	Q4	0.79
	Q5	0.71
	Q6	0.83
	Q7	0.84
	Q9	0.79
	Q10	0.78
	Q11	0.72
	Q12	0.76
F2. Support	Q2	0.62
	Q3	0.71
	Q8	0.75

Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Goodness of Fit Index (GFI) were considered to help evaluate the model fit. A RMSEA value smaller than 0.05 suggests a good model fit, and a value between 0.05 and 0.08 suggests an acceptable model fit. CFI and GFI greater than 0.9 are suggested for a good model fit. The two-factor model was demonstrated to be close to an acceptable model fit with the 12 items, given RMSEA = 0.093, CFI = 0.932, and GFI = 0.974. The slightly higher RMSEA value indicates that the *Scale* has room for further refinement that could improve the fit of the model. The model fit indices are reported in Table 5.

Table 5. Goodness of Fit Indices for CFA Models on Community Scale

Chi-square	*p*-value	Df	RMSEA	CFI	GFI
284.22	0.0	53	0.093	0.932	0.974

Note. Chi-square = Normal Theory Weighted Least Squares Chi-Square; Df = Degree of freedom; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index; GFI = Goodness of Fit Index.

Cronbach's alphas, as indicators of internal consistency, were computed for each factor and the whole *Scale* (for the 12 items). Nunnally and Bernstein (1994) suggest 0.70 as an acceptable reliability coefficient; smaller reliability coefficients are considered inadequate. However, this varies by discipline. As shown in Table 6, Cronbach's alpha for factor 1 is 0.921 (9 items); factor 2 is 0.738 (3 items). The alpha for the whole *Scale* (12 items) is 0.914. These statistics are provided in Table 7, which also outlines what the alpha would be if each item is deleted. As seen in Table 7, Item 2 is the only item that increases overall alpha reliability if deleted. However, since the magnitude is very small, the presence of Item 2 in the *Scale* does not seem so problematic. Overall, these figures show that the construct has acceptable to good internal consistency.

Table 6. Cronbach's Alphas for Each Factor and the Whole Scale of the Community Scale

Subscale/Factor	Reliability Coefficients (Cronbach's alpha)	Number of Items
School–Community Collaborations	0.921	9
Community Support	0.738	3
Whole Scale	0.914	12

Table 7. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q1	41.59	60.314	0.541	0.315	0.912
Q2	41.47	61.645	0.423	0.369	0.918
Q3	41.52	61.673	0.490	0.424	0.914
Q4	41.66	58.133	0.761	0.616	0.902
Q5	41.76	59.163	0.662	0.515	0.906
Q6	41.65	57.987	0.780	0.672	0.901
Q7	41.76	58.155	0.780	0.683	0.901
Q8	41.27	61.462	0.627	0.448	0.908
Q9	41.85	59.068	0.736	0.597	0.903
Q10	41.93	57.947	0.725	0.612	0.903
Q11	42.05	58.521	0.669	0.557	0.906
Q12	41.96	58.674	0.704	0.601	0.904

Limitations

There are several limitations of the study. First, although the data is sufficient to conduct this analysis, it is small. A larger sample would provide more robust results. Second, the data is from two schools in Illinois, one school in Connecticut, and one school in Minnesota; a large percentage of participants are White. So, representativeness of the national level is not guaranteed. Moreover, to tap varied perspectives, it would be better to have responses from more diverse places and diverse populations. Also, it would be helpful to have insight on differences in cultural perspectives, particularly among the parent community. Due to these data constraints, the current study is not positioned to provide concrete recommendations on how the scale can be used or customized across a range of ethnic, racial, linguistic, and economic communities. Third, it would be helpful to conduct convergent/divergent validity with similar/dissimilar scales to compare consistency of the scales. Due to various constraints, we were not able to conduct this analysis for the current article. We have identified this as a future step in the continuous process of developing and fine-tuning the assessment.

Beyond the *Scale*, the survey *Process* also includes two open-ended questions regarding community members' willingness to support the school's efforts in the school climate improvement process. Such "support" could have various forms, and the two current open-ended questions might not be the best way to facilitate constructive responses. Likewise, it is possible that the domain

"school–community partnership" could seem too broad to participants, and further research and data analysis to explore more concrete subscales within this domain could be a helpful next step.

Summary and the Path Ahead

This article demonstrates that *Community Scale* 2.0 has acceptable construct validity as shown by CFA fit statistics and acceptable to good reliability at the level of the individual factors and the overall *Scale.* In conclusion, the statistics using the sample data presented in this study show that the *Community Scale* 2.0 validly measures the construct of school–community collaborations and support. Furthermore, the field of school climate improvement and bullying prevention efforts can benefit from the use of the *Community Scale* and other good measures of school climate in large-scale projects. These studies will help educators, practitioners, and researchers get a better and broader picture of the school climate, as they contribute community voices to—and hopefully encourage community participation in—school climate improvement efforts.

As mentioned, there are a growing number of findings from school reform and implementation science that indicate that effective school improvement efforts need to engage the larger school community as well as students, parents/guardians, and school personnel (Bryk et al., 2015; Lawson & Lawson, 2013). There are also complimentary findings that suggest that fostering meaningful school–community partnerships have specific and beneficial implications for students with disabilities and effective inclusion efforts (Gross et al., 2015; Haines, Gross, Blue-Banning, Francis, & Turnbull, 2015). Partnerships are also helpful to students who are homeless and/or from "high mobility" families (Pavlakis, 2015). Moreover, school–community partnerships are increasingly recognized as a foundational component of urban reform (Valli, Stefanski, & Jacobson, 2016).

In this context, the *Scale* and *Process* are designed to have a very positive and meaningful impact on school–family–community partnerships. In wonderful and often surprising ways, the *Scale* and *Process* seem to set in motion conversations that generate suggestions and then actions that foster important school–community partnership projects. For example, some of the projects that have been developed by students and community members and leaders include: a school job fair; events to develop research skills in high school students with the help of university doctoral students; healthcare support in schools from local doctors, dentists, and nurses; local psychologist/therapist involvement to support student behavior and social challenges; and schoolwide presentations on school climate improvement co-led by students with the help

of the Connecticut State Department of Education and Connecticut Commission on Children, along with Yale's Center for Emotional Intelligence and the Connecticut Association of Schools.

Our hypothesis and hope is that the *Scale* and *Process* will also support effective bullying prevention efforts, and through such successes, garner increasing support. There is growing awareness that effective bullying prevention efforts must be organized in an ecologically informed manner (Bronfenbrenner, 1979), understand and address individuals and small groups (e.g., classrooms, families), occur through schoolwide and school–community engagement, and include health/mental health and educational aspects of behavior and learning (Cohen et al., 2015; National Academies of Sciences, Engineering, & Medicine, 2016). Motivated by these "lessons learned" from the field and by the students and educators we have been working with, we are developing a series of guides and related resources to support this process. We continue to explore how we might make the *Scale* and *Process* even more helpful in schools across the U.S. and in other countries.

Endnotes

[1]For further information, see www.schoolclimate.org and/or contact the National School Climate Center at (212) 707-8799.

[2]The students involved in this *Process* were trained and supervised by a coordinator in their respective schools. For details on this, see Ice et al. (2015).

[3]The *Comprehensive School Climate Inventory* is a reliable and valid measure of school climate and the only comprehensive school climate survey that has been recognized and recommended in all four of the recent independent reviews of school climate surveys (Clifford et al., 2012; Gangi, 2009; Haggerty, Elgin, & Woolley, 2010; Voight & Hanson, 2012).

[4] The "count" might be slightly different in some categories in Tables 2 & 3 than the sample size mentioned earlier due to a few instances of missing responses.

[5]The description on content validity focuses on *version 2.0*.

[6]The following individuals served as PEN *Civic Index* Advisors: Ron Cowell (Educational Leadership and Policy Center), Glenn Cooke (National School Board Association), Sue Ferguson, (National Coalition of Parent Involvement in Education), Warlene Gary (National PTA), Susan Traiman (Business Rotunda), Mike Timpane (former Director of the National Institutes of Education), Don Ernst (ASCD), Sarita Brown (Excelencia in Education), Ginny Edwards (*Education Week*), Dick Clark (Center for Educational Inquiry), Cynthia Guyer (Portland Education Partnership), Betsy Useem (Research for Action), Terry Pickeral and Susan Vermeer (National Center for Learning & Citizenship, Education Commission of the States), Ken Tolo (National Association of Schools of Public Administration), Kelly O'Brien (National Carolina Civic Index), Ron Wolk (Chair, PEN Public Engagement Committee), Mark Lopex (PEN Advisory CIRCLE), Josh Uliberri (Lake, Snell, Perry and Associates), Kay James (Charlotte Advocates for Education), Amy Averett (Austin Voices for Children), and Hazel Palmer (West Virginia Education Fund).

[7]We are indebted to the following *Community Scale* Development Advisory Board Members who reviewed and helped revise the Scale (version 1.0): Arnold F. Fege (former Director of Public Engagement and Advocacy for Public Education Network), Cynthia Gibson (Principal

of Cynthesis Consulting and former Program Officer at the Carnegie Corporation of New York), Ann Higgins-D'Alessandro (professor and Director of the Applied Psychology Doctoral Program at Fordham University), Peter Levine (Director of Research and Director of the Center for Information & Research on Civic Learning & Engagement at the Jonathan M. Tisch College of Civic Life at Tufts University); Kim McLaughlin (Director, Student Support Services Center, Genesee Valley Educational Partnership, New York), and Terry Pickeral (former Executive Director of the National Center for Learning and Citizenship at the Education Commission of the States and President of Cascade Educational Consultants).

[8]As the data set was small, we were not encouraged to split the data and conduct EFA and CFA on separate samples. However, for our own curiosity, an EFA based on a sub-sample ($N = 300$) of this data set indicated similar results.

[9]Factor loadings in our analysis range from 0 to1. The closer to 1, the better the factor loadings.

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