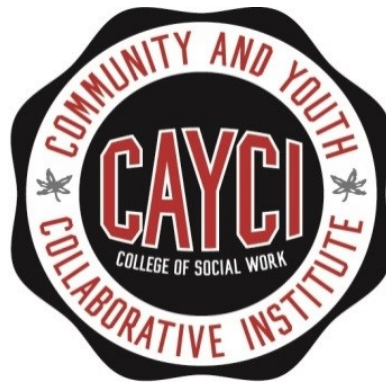


Community and Youth Collaborative Institute
School Experience Surveys



**Technical Report: School Climate Experience
Survey – Short Form (CAYCI-SES-SF)**

Middle/High School Student Version

Produced By:

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THE OHIO STATE UNIVERSITY
COLLEGE OF SOCIAL WORK

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SCHOOL CLIMATE EXPERIENCE SURVEY – SHORT FORM

Middle & High School Student Version (CAYCI-SES-SF)

I. Definition of Construct

The *School Climate Experience Survey – Short Form* (CAYCI-SES-SF) assesses middle and high school students' perceptions of school climate, often described as the "quality and character of school life" (O'Malley et al., 2015, p. 145). School climate reflects teaching, learning, and leadership practices; norms, values, and expectations; interpersonal relationships; and the organizational features of the school environment (Cohen et al., 2009; Wang & Degol, 2016). It also aligns with the U.S. Department of Education and National Center on Safe Supportive Learning Environments framework, which organizes school climate into three core domains: engagement, safety, and environment (NCSSLE, 2026).

The short form is a 29-item abbreviation of the 76-item CAYCI-SES Middle/High School Student Survey. It measures one overall (general) school climate construct through seven subscales: Academic Motivation, School Connectedness, Academic Press, Support for Learning, Parent/Caregiver Involvement & Support, Safety, and Respect for Others.

II. Relevance for Practice

Research has shown that positive school climate experiences predict healthy youth development, well-being, academic achievement, school success, risk prevention, desirable behavioral and emotional outcomes such as fewer office discipline referrals, and teacher retention (O'Malley et al., 2015; Thapa et al., 2013; Wang & Degol, 2016; Zullig et al., 2010). School climate shapes the daily experiences that are critical to student engagement, school completion, and dropout prevention (Lombardi et al., 2019; Wang & Hofkens, 2021).

Schools and districts therefore need psychometrically sound climate assessments to guide practice, drive school improvement strategies, and monitor progress over time (Lenz et al., 2021; Voight & Nation, 2016). The short form was built to meet that need while limiting response burden. It focuses on the elements of a positive learning environment most commonly identified in the literature and that administrators have identified as central to their school climate efforts (Anderson-Butcher et al., 2012; Baumsteiger et al., 2023). A single, reliable overall score is especially valuable for schools with limited evaluation infrastructure and a need to protect instructional time.

III. Scale Description and Instructions

A. Items

Academic Motivation (AM)

1. I have a positive attitude toward school.
2. I have made the most of my school experiences so far.
3. I like the challenges of learning new things in school.
4. I am confident in my ability to manage my schoolwork.
5. My school experience is preparing me for adulthood.
6. I have enjoyed my school experience so far.

School Connectedness (SC)

7. I enjoy coming to school.

8. I am proud to be a student at my school.
9. I feel like I belong at my school.

Academic Press (AP)

10. Decisions at my school focus on what is best for learning.
11. My teachers provide helpful feedback to students about their academic performance.
12. My teachers monitor whether students are learning on a regular basis.
13. My teacher gives students extra help when they need it.

Support for Learning (SL)

14. When I have a problem, I get help from my teacher.
15. I would go to my teacher for help if I needed it.
16. My teacher(s) would notice if I was not in school.
17. There is at least one adult in my school who cares about me.

Parent/Caregiver Involvement & Support (PIS)

18. My parents help me with my schoolwork.
19. My parents talk to me about what I do in school.
20. My parents ask me about my schoolwork.
21. My parents push me to work hard at school.

Safety (S)

22. I feel safe in the community.
23. I feel safe in school.
24. I feel safe getting to and from school.

Respect for Others (RO)

25. At my school, students treat others who are different from them with respect.
26. At my school, teachers and other school staff treat all students with respect regardless of background or culture.
27. At my school, all students are treated equally.
28. At my school, it's ok to be different.
29. At my school, all students are treated the same regardless of where they come from.

B. Response Options

Response options for each item include the following:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Disagree nor Agree
- 4 = Agree
- 5 = Strongly Agree

C. Instructions for Scale Administrators

In the study described in this report, the survey was administered online by school staff during designated periods of the regular school day as part of routine school climate assessment and improvement planning. Administration took about 30 minutes. Surveys were given in November and December so that students had spent enough time in their classrooms and school before reporting on their experiences.

Because the short form is designed to be brief, accessible, and free to use with appropriate citation, it can be built into existing school improvement planning cycles. Administering it at the same point in each school year and scoring it the same way each time will allow schools to track changes over time.

IV. Scoring Procedures

Total score. The 29 items may be combined into one total score as an indicator of overall perceived school climate. Either sum the 29 responses (possible range 29–145) or average them (range 1–5, the same metric as the response options). Higher scores reflect a more positive perceived school climate. The mean score is generally easier to interpret and compare with other CAYCI scales.

Subscale scores. Three subscales showed enough unique, reliable variance to be scored and interpreted on their own: *Parent/Caregiver Involvement & Support*, *Safety*, and *Respect for Others*. Average the items in each of these subscales to create a subscale score. In this sample, the remaining four subscales (Academic Motivation, School Connectedness, Academic Press, and Support for Learning) mostly reflected the overall school climate factor. Independent scoring of these four is not yet recommended for the short form pending further study; their items should be interpreted as part of the total score.

Model-based scores (optional). Analysts with access to statistical software may instead fit a confirmatory factor analysis or item response theory model and generate factor scores. These scores weight items with stronger relationships to the construct more heavily, but require model fitting skills that may not be available in many applied settings.

Interpretation note. The authors recommend the sum or mean score as a *pragmatic* scoring option for applied settings. It should not be taken as definitive evidence that the scale is strictly unidimensional (McNeish, 2024; Sijtsma et al., 2024). Using the same scoring method at every administration ensures apples-to-apples comparisons over time (Widaman & Revelle, 2023).

V. Psychometric Properties of the Scale

A. Description of Sample

Participants used to test the psychometric properties of the short form included 1,509 middle school ($n = 347$; 23.0%) and high school ($n = 1,162$; 77.0%) students from one middle school and one high school in a large rural school district in a Midwestern state. The participants included 727 males (48.2%), 717 females (47.5%), and 65 students (4.3%) who selected “other” or preferred not to answer. The majority of students identified themselves as White (92.0%), followed by Multiracial (2.7%), Black/African American (1.7%), Hispanic/Latino (1.1%), American Indian/Alaska Native (0.8%), Asian (0.5%), Native Hawaiian (0.04%), or another race (1.3%).

Data were collected in November and December 2024 as part of routine school climate assessment and improvement planning. District and school administrators surveyed most enrolled students. No individual recruitment or random sampling was used, so the sample reflects students present during administration. De-identified data were shared under data-sharing agreements, and all procedures were approved by The Ohio State University Institutional Review Board (IRB #2019B0006).

B. Basic Descriptive Statistics and Relevant Group Differences

Students tended to respond toward the positive end of the scale (average item mean = 3.50). Responses showed good variability (average standard deviation = 1.00) with no undue skewness (average = .61) or kurtosis (average = .21). On average, 56.5% of students selected Agree or Strongly Agree. Endorsement ranged from a low of 28.5% for RO1 (“At my school, students treat others who are different from them with respect”) to a high of 83.8% for SL4 (“There is at least one adult in my school who cares about me”).

Table 1. Item-Level Response Frequencies and Descriptive Statistics (N = 1,509)

Item	% SD/D	% N	% A/SA	Mean	SD	Sk.	Ku.
<i>Academic Motivation</i>							
AM1. I have a positive attitude toward school.	19.7	32.4	47.9	3.33	1.03	.42	.29
AM2. I have made the most of my school experiences so far.	10.2	29.3	60.5	3.61	.90	.61	.38
AM3. I like the challenges of learning new things in school.	20.5	34.4	45.1	3.28	1.04	.38	.32
AM4. I am confident in my ability to manage my schoolwork.	13.6	22.4	64.0	3.63	1.01	.76	.23
AM5. My school experience is preparing me for adulthood.	30.0	27.6	42.3	3.12	1.16	.25	.81
AM6. I have enjoyed my school experience so far.	19.0	33.0	48.0	3.33	1.08	.51	.24
<i>School Connectedness</i>							
SC1. I enjoy coming to school.	35.1	33.9	31.1	2.89	1.11	.09	.74
SC2. I am proud to be a student at my school.	15.0	38.6	45.4	3.35	1.03	.42	.06
SC3. I feel like I belong at my school.	16.5	35.4	48.1	3.37	1.05	.49	.10
<i>Academic Press</i>							
AP1. Decisions at my school focus on what is best for learning.	15.6	39.6	44.8	3.30	.91	.44	.24
AP2. My teachers provide helpful feedback to students about their academic performance.	10.3	29.2	60.4	3.58	.90	.56	.74
AP3. My teachers monitor whether students are learning on a regular basis.	10.5	31.7	57.8	3.54	.88	.77	.54
AP4. My teacher gives students extra help when they need it.	5.9	22.8	71.3	3.81	.84	.65	1.21
<i>Support for Learning</i>							
SL1. When I have a problem, I get help from my teacher.	14.1	27.6	58.3	3.54	.98	.82	.11
SL2. I would go to my teacher for help if I needed it.	15.9	18.6	65.5	3.59	1.04	.63	.25
SL3. My teacher(s) would notice if I was not in school.	12.2	27.8	60.0	3.62	1.03	.86	2.32
SL4. There is at least one adult in my school who cares about me.	4.3	11.9	83.8	4.15	.87	.67	.42
<i>Parent/Caregiver Involvement & Support</i>							
PIS1. My parents help me with my schoolwork.	19.7	23.8	56.5	3.47	1.14	1.30	.95
PIS2. My parents talk to me about what I do in school.	9.8	14.8	75.4	3.88	.97	.57	.93
PIS3. My parents ask me about my schoolwork.	10.0	14.8	75.1	3.89	.99	1.03	.95
PIS4. My parents push me to work hard at school.	6.0	16.8	77.2	4.06	.94	1.02	.59
<i>Safety</i>							
S1. I feel safe in the community.	8.3	30.6	61.1	3.64	.87	.61	.59
S2. I feel safe in school.	11.4	30.6	58.0	3.57	.96	.65	.36
S3. I feel safe getting to and from school.	4.4	17.2	78.5	3.98	.83	.99	1.74

Item	% SD/D	% N	% A/SA	Mean	SD	Sk.	Ku.
<i>Respect for Others</i>							
RO1. At my school, students treat others who are different from them with respect.	39.1	32.4	28.5	2.81	1.13	.02	.79
RO2. At my school, teachers and other school staff treat all students with respect regardless of background or culture.	11.5	25.3	63.2	3.66	.98	.69	.27
RO3. At my school, all students are treated equally.	32.1	28.8	39.1	3.04	1.17	.19	.85
RO4. At my school, it's ok to be different.	22.2	30.7	47.1	3.33	1.14	.35	.58
RO5. At my school, all students are treated the same regardless of where they come from.	25.2	30.9	43.9	3.21	1.14	.32	.64

Note. SD = Strongly Disagree; D = Disagree; N = Neither Disagree nor Agree; A = Agree; SA = Strongly Agree; Sk. = skewness; Ku. = kurtosis. Values are reproduced as printed in Bates et al. (2026). Skewness and kurtosis appear without signs in the source; given that most responses fall toward Agree, skewness values are likely negative. Response percentages may not sum to exactly 100 because of rounding.

C. Maximum Value Percentages

Following the approach used in other CAYCI technical reports, the maximum value percentage is the scale mean divided by the number of response options (5). The source study does not report scale-level means, so the values below were derived from the item means in Table 1 (the average of a scale's item means equals the mean of its mean score when responses are complete). They allow relative comparisons across constructs.

Table 2. Maximum Value Percentages Derived from Item Means

Scale	Items	Derived Mean	Maximum Value %
Total (General School Climate)	29	3.50	70.1%
Academic Motivation	6	3.38	67.7%
School Connectedness	3	3.20	64.1%
Academic Press	4	3.56	71.2%
Support for Learning	4	3.73	74.5%
Parent/Caregiver Involvement & Support	4	3.83	76.5%
Safety	3	3.73	74.6%
Respect for Others	5	3.21	64.2%

Note. Derived by the report authors from item means in Bates et al. (2026); assumes complete responses. Interpret subscale values for Academic Motivation, School Connectedness, Academic Press, and Support for Learning with caution, as these subscales are not yet recommended for independent scoring.

D. Factorial Validity (Dimensionality)

Dimensionality was examined with item response theory methods in R using the *mirt* package (Chalmers, 2012) and a full-information marginal maximum-likelihood estimator. Four competing models were compared:

- **One-factor model:** all 29 items load on a single school climate factor.
- **Correlated factors model:** items load on their seven subscale factors, which are allowed to correlate.
- **Bifactor (S–1) model:** Academic Motivation serves as the reference factor (Eid et al., 2017), so the general factor represents academic motivation.
- **Restricted bifactor model:** every item loads on a general school climate factor and on its own subscale (group) factor, with all factors uncorrelated (Figure 1).

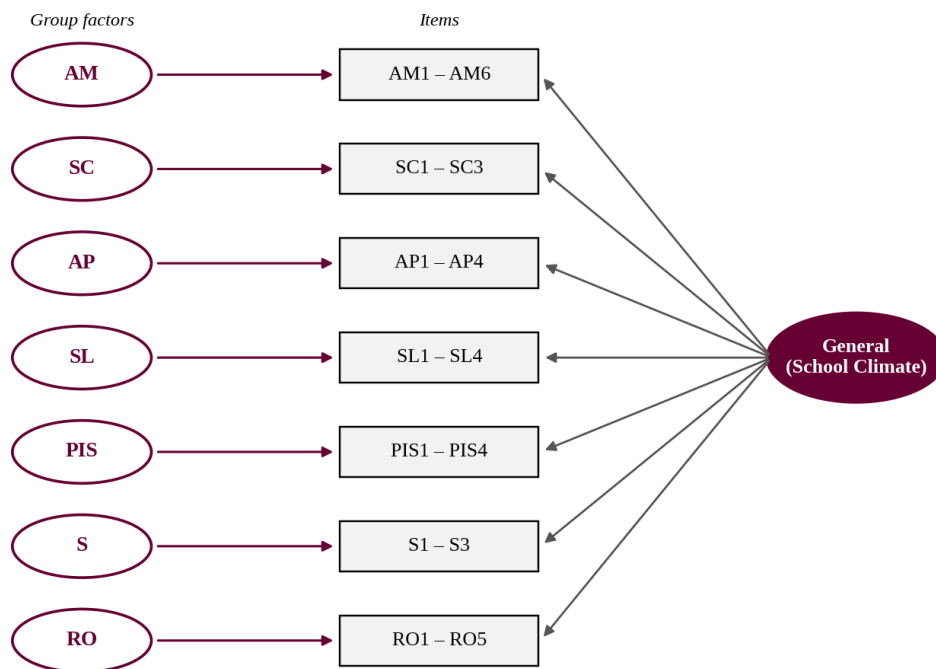
Table 3. Model Fit Comparisons

Model	M2*	df	RMSEA [95% CI]	SRMR	CFI	AIC	BIC
One-factor	8549.51	290	.137 [.135, .140]	.097	.630	101276.85	102048.14
Correlated factors	1523.70	269	.056 [.053, .058]	.160	.944	95670.80	96553.78
Bifactor (S–1)	1278.19	267	.050 [.047, .053]	.064	.955	94508.10	95401.73
Restricted bifactor	1395.23	261	.054 [.051, .056]	.056	.949	94328.35	95253.89

Note. M2* = scaled limited-information chi-square (all $p < .01$); RMSEA = root mean square error of approximation ($\leq .08$ adequate, $\leq .05$ close fit); SRMR = standardized root mean square residual; CFI = comparative fit index ($\geq .95$ suggests a plausible model); AIC/BIC = information criteria (smaller values indicate better fit).

The one-factor model fit poorly. The other three models fit substantially better. The bifactor (S–1) model had the lowest RMSEA and highest CFI, while the restricted bifactor model had the lowest SRMR, AIC, and BIC. The correlated factors model had an unacceptably high SRMR (.160). Because different indices favored different models, the authors selected the **restricted bifactor model** based on the study’s purpose: its general factor captures what all items share (overall school climate) rather than academic motivation alone. The model also showed none of the anomalous results (e.g., negative variances or near-zero loadings) that can undermine bifactor models.

Figure 1. Restricted Bifactor Model of the CAYCI-SES-SF



Note. Each item is influenced by the general school climate factor and by one group (subscale) factor. All factors are uncorrelated. AM = Academic Motivation; SC = School Connectedness; AP = Academic Press; SL = Support for Learning; PIS = Parent/Caregiver Involvement & Support; S = Safety; RO = Respect for Others.

Can the scale be scored as one overall measure? Three bifactor indices (ECV, PUC, and OmegaH) and their recommended cut points were used, along with a check on parameter bias (ARPB; Reise et al., 2013; Rodriguez et al., 2016a). All benchmarks were met (Table 4).

Table 4. Bifactor Indices Supporting a Total Score

Index	What It Tells Us	Benchmark	Result
Explained Common Variance (ECV)	Share of common variance explained by the general factor	$\geq .60$	.62
Percent of Uncontaminated Correlations (PUC)	Share of item correlations that reflect only the general factor	$\geq .80$	.88
Omega Hierarchical (OmegaH)	Reliability of the total score as a measure of the general factor	$\geq .70$ ($\geq .80$ preferred)	.90
Average Relative Parameter Bias (ARPB)	Distortion in loadings when the scale is treated as one-dimensional	$< .10$	.08

Note. In addition, unidimensional and general-factor loadings were highly correlated ($r = .98$). ECV, PUC, and ARPB were calculated with the BifactorIndicesCalculator package (Dueber, 2021).

Together, these results indicate that about two-thirds (62%) of the common variance reflects overall school climate. The authors concluded that the 29-item short form is **essentially unidimensional** for scoring purposes, even though the subscales add some meaningful structure.

Item loadings. Table 5 presents standardized factor loadings. In the one-factor model, every item loaded $\geq .50$, from .54 (PIS4) to .80 (SC3). General-factor loadings in the bifactor model were similar, from .45 (PIS1) to .81 (SC3). Group-factor loadings show how much an item measures its subscale *after* overall school climate is accounted for. These were low for Academic Motivation (.21–.44) and School Connectedness (.18–.43), mixed for Academic Press (.14–.54) and Support for Learning (.25–.57), and consistently $\geq .50$ for Parent/Caregiver Involvement & Support (.58–.83), Safety (.54–.61), and Respect for Others (.50–.74).

Table 5. Standardized Item Loadings: One-Factor and Restricted Bifactor Models

Item	One-Factor	General	AM	SC	AP	SL	PIS	S	RO
AM1	.76	.78	.44						
AM2	.69	.71	.26						
AM3	.60	.60	.41						
AM4	.61	.60	.27						
AM5	.71	.72	.21						
AM6	.75	.78	.28						
SC1	.69	.73		.18					
SC2	.78	.80		.43					
SC3	.80	.81		.23					
AP1	.73	.73			.14				
AP2	.74	.70			.54				
AP3	.72	.68			.52				
AP4	.71	.66			.43				
SL1	.75	.72				.57			
SL2	.76	.73				.55			
SL3	.66	.65				.31			
SL4	.62	.63				.25			
PIS1	.53	.45					.64		
PIS2	.60	.50					.80		
PIS3	.60	.49					.83		
PIS4	.54	.49					.58		

Item	One-Factor	General	AM	SC	AP	SL	PIS	S	RO
S1	.73	.67						.59	
S2	.72	.66						.61	
S3	.66	.61						.54	
RO1	.62	.53							.63
RO2	.73	.64							.50
RO3	.71	.60							.72
RO4	.66	.57							.57
RO5	.70	.59							.74

Note. Group-factor loadings $\geq .50$ are shown in bold. Item PIS1 (.45) and items PIS3 and PIS4 (.49) are the only general-factor loadings below .50. Subscale abbreviations as in Figure 1.

E. Reliability

Reliability was evaluated with model-based omega coefficients, which do not require every item to contribute equally to the construct, as coefficient alpha does (McNeish, 2018). **OmegaH** is the reliability of the total score as a measure of the general factor only. **OmegaHS** is the reliability of a subscale after the general factor and other subscales are partialled out; values $\geq .30$ are needed to score and interpret a subscale on its own (Li & Savalei, 2025; Smits et al., 2015).

The total score is highly reliable: about 90% of total-score variance is attributable to the general school climate factor (OmegaH = .90). Subscale reliability beyond the general factor varied widely, from .10 (School Connectedness) to .63 (Parent/Caregiver Involvement & Support). Three subscales met the .30 benchmark (Parent/Caregiver Involvement & Support, Safety, and Respect for Others); the other four mainly reflect overall school climate in this sample.

VI. Summary

Overall, the results of the psychometric testing support the use of the CAYCI-SES-SF as a brief, comprehensive, and feasible measure of school climate with middle and high school students. The general factor performed well, with strong reliability and structural validity, and three subscales (Parent/Caregiver Involvement & Support, Safety, and Respect for Others) also showed adequate performance. With 29 items instead of 76, the short form gives school leaders and partners meaningful, actionable data to guide school improvement. Continued refinement and replication in additional educational contexts are important next steps.

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VIII. Recommended Citation of Scale

When using the CAYCI-SES-SF for program evaluation or research purposes, we recommend citing the validation study:

Bates, S., Anderson-Butcher, D., Bean, J., & Amorose, A. (2026). The dimensionality and reliability of the CAYCI School Climate Experience Survey Middle/High School Student Short Form. *Journal of Psychoeducational Assessment*, 44(6), 699–717.
<https://doi.org/10.1177/07342829261439205>

If the short form is used along with additional Community and Youth Collaborative Institute School Experience Surveys, the following citation would be appropriate to cover all scales:

Anderson-Butcher, D., Amorose, A.J., Iachini, A., & Ball, A. (2013). *Community and Youth Collaborative Institute School Experience Surveys*. Columbus, OH: College of Social Work, The Ohio State University.

For more information about the CAYCI mission and the survey compendium, visit <https://cayci.osu.edu/>.