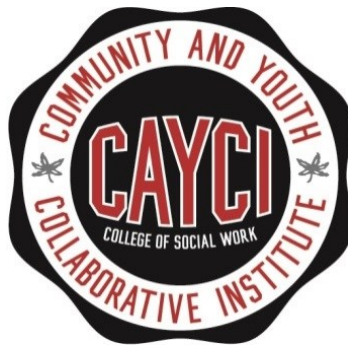


Community and Youth Collaborative Institute  
School Experience Surveys

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**Technical Report: School Connectedness**  
Teacher/Staff Version

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# **STUDENT SCHOOL CONNECTEDNESS**

Teacher/Staff Version

## **I. Definition of Construct**

The School Connectedness scale assesses teachers'/staff's general perceptions of their students' relationships to the school.

## **II. Relevance for Practice**

Past studies have demonstrated that enhanced school connectedness relates to improved grades, higher academic performance, and graduation from high school (Battin-Pearson, et al., 2000; Battistich, Schaps & Wilson, 2004; Klem & Connell, 2004; Nasir, Jones, & McLaughlin, 2011; Voelkl, 1995; Wentzel, 1995).

## **III. Scale Description and Instructions**

### *A. Items*

1. Students enjoy coming to [insert school name].
2. Students have meaningful relationships with teachers.
3. Students are proud to be students at [insert school name]
4. Students feel like they belong to [insert school name]

### *B. Response Options*

Response options for each item include the following:

- 1 = Almost never
- 2 = Sometimes
- 3 = Half of the Time
- 4 = Frequently
- 5 = Almost always
- \* "Do Not Know"

### *C. Instructions for Respondents*

We are interested in learning about your perceptions of the degree to which students feel connected to your school. For each of the following statements, please fill in the ONE circle that best represents your answer.

### *D. Instructions for Scale Administrators*

Surveys can be self-administered or administered to teachers/staff in person or online. Explain that the purpose of the survey is to learn more about their perceptions about their students, school, and community. They should select one answer per request, and make a choice based on the answer that best reflects how they feel. They may submit the survey when they have completed it.

If administered in person, look through the finished surveys to make sure that teachers/staff didn't miss any items or questions. Please remember that they do not have to answer every question, but do encourage them to complete as much of the survey as possible, reminding them their answers will help the school know how to best support its students and personnel.

## **IV. Scoring Procedures**

An average of the response scores from the 4 items should be calculated and used as an indicator of school connectedness, with higher scores suggesting that staff perceive that students have higher degree of school connectedness.

## V. Psychometric Properties of the Scale

### A. Description of Sample

Participants used to explore the psychometric properties of the scale included 724 school staff members from various elementary schools (52.1%), middle schools/junior high schools (17.4%) and high schools (30.4%) around the state of Ohio. The majority of participants indicated at least part of their duties at the school included teaching (84.8%), with the remainder reporting non-teaching duties (e.g., support staff, administration). The amount of experience working at the school ranged from 1-10 (53.1%) or 11-20 (26.1%) to over 20 years (20.8%). Staff members (72.8% female) almost all identified themselves as Caucasian (93.8%). The participants varied in age with 10.9% reporting they were under 30 years of age, 40.2% indicated they were 30-44, and 48.9% were 45 years or older. Data on these staff members were collected as part of a needs assessment within each school's improvement planning process. Some data were collected using an online instrument, whereas others were collected via paper/pencil survey. School administrators informed teachers and school staff of the survey and distributed the surveys in a meeting or through mailboxes or provided the staff with a link to the online survey. All completed paper/pencil surveys were returned to a specified location in the building or to a person who was identified as the lead. All versions of the survey were anonymous. The final sample described above included only those with complete data, meaning that 20 staff members who responded to one or more of the items with "Do Not Know" were omitted. For each of the items, less than 2% of the staff members selected the "Do Not Know" response option.

### B. Basic Descriptive Statistics and Relevant Group Differences

| Sample   | Mean | SD  | Range     | $\alpha$ |
|--|------|-----|-----------|----------|
| Full Sample ( $N=724$ )  | 4.30 | .82 | 1.25-5.00 | .93      |
| Gender   |      |     |           |          |
| Males ( $n = 152$ )  | 4.07 | .86 | 1.25-5.00 | .92      |
| Females ( $n = 527$ )  | 4.37 | .78 | 2.00-5.00 | .93      |
| Age  |      |     |           |          |
| Less than 30 years ( $n = 79$ )                                  | 4.08 | .79 | 2.00-5.00 | .90      |
| 30-44 years ( $n = 291$ )  | 4.31 | .78 | 1.25-5.00 | .93      |
| 45 years and above ( $n = 354$ )                                 | 4.33 | .84 | 2.00-5.00 | .94      |
| Amount of Experience at the School                               |      |     |           |          |
| 1-10 years ( $n = 400$ )   | 4.21 | .83 | 2.00-5.00 | .92      |
| 11-20 years ( $n = 197$ )  | 4.32 | .82 | 1.25-5.00 | .94      |
| More than 20 years ( $n = 157$ )                                 | 4.50 | .74 | 2.00-5.00 | .93      |
| Role as Staff Member   |      |     |           |          |
| Teaching ( $n = 614$ )   | 4.28 | .82 | 1.25-5.00 | .93      |
| Non-Teaching (e.g., support staff, administrators) ( $n = 110$ ) | 4.38 | .80 | 2.00-5.00 | .92      |
| School Level   |      |     |           |          |
| Elementary ( $n = 377$ )   | 4.55 | .70 | 2.00-5.00 | .93      |
| Middle School/Junior High ( $n = 126$ )                          | 4.06 | .88 | 2.00-5.00 | .93      |
| High School ( $n = 220$ )  | 4.01 | .84 | 1.25-5.00 | .91      |

Notes. Group specific data omits staff who did not indicate their status. All group comparisons were significant ( $p > .05$ ), with the exception of Role as a Staff Member. The effect sizes ( $\eta^2$ ) indicated that group membership differences accounted for 2.5% of the variance in the scores in all cases except School Level where group membership account for 10.4% of the variance. Follow-up comparisons showed that the elementary school staff reported higher scores than the other 2 groups which did not differ from one another. In terms of the amount of experience, those who had been at the school more than 20 years reported higher scores than the other 2 groups which did not differ from each other.

### C. Maximum Value Percentages and Classification of Scores

| Percentages   |      | Classification of Scores |          |                   |
|---------------|------|--------------------------|----------|-------------------|
| Maximum Value | ½ SD | Excelling                | Emerging | Needs Improvement |
| 86.0%         | 8.2% | >94                      | 94-78    | <78               |

Note. The max value percentages reflect the scale mean divided by the number of response options in the scale. This value allows the subscale to be compared with other measured constructs measured in the CAYCI surveys, thereby providing relative information regarding the extent to which staffs' experiences are favorable across constructs. The classification of scores provides ranges of values based on the maximum value percentage plus or minus ½ SD percentage. Based on these cut points, schools may determine where they stand on staffs' perceptions of students' school connectedness relative to normed data.

### D. Relationships Between Student School Connectedness Scale Score and other Staff Perception Constructs

| Construct <sup>a</sup>                            | r =  |
|---|------|
| Student Academic Motivation                       | .709 |
| Student Academic Press                            | .505 |
| Student Internalizing Behaviors                   | .320 |
| Student Psychological Well-Being                  | .485 |
| Student Externalizing Behaviors                   | .211 |
| Student Social Skills                             | .485 |
| Student Safety                                    | .440 |
| Support for Students' Basic Needs                 | .302 |
| Families and Caregivers' Support for of Learning  | .439 |
| Family History                                    | .165 |
| Family Support for Prosocial Activities           | .275 |
| Services and Supports                             | .205 |
| Community Supports for Positive Youth Development | .244 |
| Learning Supports                                 | .264 |
| Student Physical Activity and Nutrition           | .400 |

Notes. <sup>a</sup> Average score on the respective subscale scores from the CAYCI surveys (Anderson-Butcher, Amorose, Iachini, & Ball, 2013). All relationship are significant ( $p < .01$ ).

### E. Factorial Validity

A confirmatory factor analysis (CFA) was conducted using robust maximum likelihood estimation procedures in LISREL 8.71 (Scientific Software International, Inc., Chicago). The CFA model specified that the 4 items loaded on a single latent Student School Connectedness factor. The factor variance was freely estimated, as was the uniqueness for each item. No covariances between uniquenesses were modeled. The data were input using the asymptotic covariance matrix.

The overall fit of the model to the data was reasonably good based on commonly recommended cut off values for evaluating model fit (see Hu & Bentler, 1999), S-B  $\chi^2 = 8.52$ ,  $df = 2$ ,  $p = .014$ ; RMSEA = .067 (90% CI = .026-.120), SRMR = .02; CFI = 1.00, TLI = .99. The table below presents the completely standardized factor loadings and uniquenesses for each item. Squared multiple correlations averaged .77. The modification indices did not suggest any major areas of local strain.

| Item  | Loading | Uniqueness |
|---|---------|------------|
| Students enjoy coming to [insert school name].            | .87     | .25        |
| Students have meaningful relationships with teachers.     | .81     | .34        |
| Students are proud to be students at [insert school name] | .92     | .16        |
| Students feel like they belong to [insert school name]    | .90     | .18        |

## VII. Past and Future Scale Development

The current recommendation is to use the 4-item version of the measure as described in this report. Future scale development work should involve testing the psychometric properties of the scale with a larger sample of non-teaching staff (e.g., school administrators, support staff). Further, it may be worth considering modifying items and/or response format to increase the variability in the scores. Scale work is also needed to validate the Spanish version of this tool.

## VII. Summary

Overall, the results of the psychometric testing indicate initial support for the reliability and validity of the Student School Connectedness scale. The use of this measure could provide valuable information about students' school connectedness as perceived by teachers/school staff and the link between school connectedness, grades, academic performance, and graduation.

## VIII. References

- Anderson-Butcher, D., Amorose, A. J., Iachini, A., & Ball, A. (2013). Community and Youth Collaborative Initiative School Community Surveys. Columbus, OH: College of Social Work, The Ohio State University.
- Battin-Pearson, S., Newcomb, M. D., Abbott, R. D., Hill, K. G., Catalano, R. F., & Hawkins, J. D. (2000). Predictors of early high school dropout: A test of five theories. *Journal of Educational Psychology*, 92, 568-582.
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- Hu, L. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
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- Nasir, N. S., Jones, A., & McLaughlin, M. W. (2011). School connectedness for students in low-income urban high schools. *Teachers College Record*, 113(8). Retrieved from <http://www.tcrecord.org>
- Voelkl, K. E. (1995). School warmth, student participation, and achievement. *Journal of Experimental Education*, 63, 127-138
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## IX. Recommended Citation of Scale

When using the scale for program evaluation or research purposes, we recommend using the following citation:

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

If this scale is used along with additional Community and Youth Collaborative Institute School Community Surveys, then 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 Community Surveys. Columbus, OH: College of Social Work, The Ohio State University.