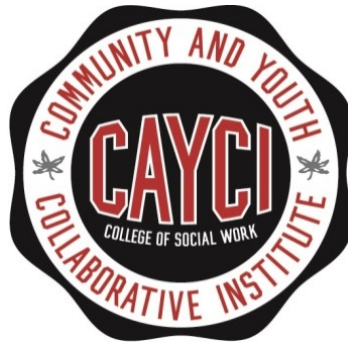


Community and Youth Collaborative Institute
School Experience Surveys – Technical Report



CAYCI Externalizing Behaviors Scale
Elementary School Student Version

Produced By:

Dawn Anderson-Butcher, Anthony J. Amorose, Aidyn Iachini, and Annahita Ball

Community and Youth Collaborative Institute
College of Social Work
The Ohio State University



THE OHIO STATE UNIVERSITY
COLLEGE OF SOCIAL WORK

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Externalizing Behaviors

Elementary School Student

I. Definition of Construct

The *Externalizing Behaviors* scale measures the extent to which students report behaviors that are directed outward, either toward other people or property. This scale includes externalizing behaviors that students typically demonstrate in the school setting.

II. Relevance for Practice

In the literature, externalizing behaviors have been shown to significantly influence the student- teacher relationship poorly (Sanchez-Fowler et al., 2008). Furthermore, students who have display externalized behaviors at school frequently show indicators of low self-esteem, lower school achievement, and maladaptive achievement strategies (Aunola, Stattin & Nurmi, 2000; Ansary & Luthar, 2009).

III. Scale Description and Instructions

A. Items

1. Have you ever gotten in trouble in class?
2. Has your school called home because you were in trouble for your behavior?
3. Have you ever been in a fight?
4. Have you ever skipped schoolwork assignments?
5. Have you ever lied about something important?

Individual Bullying Items

6. Have you ever bullied someone at school?
7. Have you ever been bullied at school?
8. I know what to do if I am being bullied.
9. I know what to do to help someone else who is being bullied.

B. Response Options

Response options for each item include the following:

- 4 = NO!
- 3 = No
- 2 = Yes
- 1 = YES!

C. Instructions for Respondents

These questions ask you about your experiences at school. Please mark how strongly you feel about each sentence.

D. Instructions for Scale Administrators

For complete instructions on how to administer the survey, reference the “Student Survey Directions” that are printed on the survey itself. Once each student has a survey, explain that the purpose of the survey is to learn more about their experiences at school. They should mark one answer per statement, selecting the choice that best reflects how they feel.

As students finish, look thoroughly through the surveys to make sure that they did not miss any items or questions. Please remember that students do NOT have to answer every question, but do encourage them to complete as much of the survey as possible. Remind students that their answers will help the school know how to best support them.

IV. Scoring Procedures

An average of the response scores from the first 5 items should be calculated and used as an indicator of externalizing behaviors, with lower scores indicating that students more commonly exhibit externalizing behaviors. The individual items listed measures important phenomena related to bullying (which is itself related to externalizing behavior), but are not themselves indicator of externalizing behavior so should be excluded from mean score calculations.

V. Psychometric Properties of the Scale (Elementary Students)

A. Description of Sample

Participants used to test the psychometric properties of the scale included 2404 elementary school students from around the state of Utah. This included 1397 students in K-3rd grade and 994 students in 4th – 6th grade. The mean age of the students was 8.35 (SD = 2.15). Both males (51.0%) and females (49.0%) were represented. The students identified themselves as White/Non-Hispanic (42.7%), Latino/Latina (31.3%), Mixed/Multi-Racial (17.8%), African American (5.8%), or Asian (1.6%), and 24.1% indicated they received a free or reduced lunch. Data on these students were collected as part of a needs assessment within each school’s improvement planning process. Data were collected using the on-line instrument.

B. Basic Descriptive Statistics and Relevant Group Differences

Sample	Mean	SD	Range	α
Full Sample (N = 2404)	3.20	.68	1-4	.78
Gender				
Males (n = 1215)	3.06	.71	1-4	.76
Females (n = 1167)	3.35	.62	1-4	.77
Race/Ethnicity				
White/Non-Hispanic (n = 1026)	3.23	.64	1-4	.74
Latino/Latina (n=752)	3.18	.70	1-4	.78
Other (n = 626)	3.18	.72	1-4	.81
Grade Level				
K-3 rd (n = 1397)	3.27	.64	1-4	.74
4 th -6 th (n = 994)	3.11	.72	1-4	.80

Note. Group specific data omits students who did not indicate their status. The groups were significantly different ($p < .05$), with the exception of race/ethnicity. The effect size (η^2) for the grade level comparison indicated that group membership differences accounted for 4.4% of the variance in the scores, where the gender differences account for less than 1.4% of the variance in the scores.

C. Maximum Value Percentages and Classification of Scores

Percentages		Classification of Scores		
Maximum Value	½ SD	Excelling	Emerging	Needs Improvement
80.0%	8.5%	89+	88-72	<72

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 students’ 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 students’ experiences of externalizing behaviors relative to normed data.

D. Relationship between Externalizing Behavior scores and other Student Perception Constructs

At this time we have not explored this construct in relationship to other measures of validity.

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 6 items loaded on a single latent Externalizing Behavior 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 $\chi^2 = 66.06$, $df = 9$, $p = .00$; RMSEA = .051 (90% CI = .040-.063), SRMR = .03; CFI = .99, TLI = .98. The table below presents the completely standardized factor loadings and uniquenesses for each item. Squared multiple correlations averaged .37. The modification indices did not suggest any major areas of local strain.

Item	Loading	Uniqueness
Have you ever gotten in trouble in class?	.56	.69
Has your school called home because you were in trouble for your behavior?	.64	.59
Have you ever been in a fight?	.64	.59
Have you ever skipped schoolwork assignments?	.55	.70
Have you ever lied about something important?	.64	.59

VI. Past and Future Scale Development

An initial version of the scale included the following additional items: (1) “Is it hard for you to control your behavior”, and (2) “Have you ever been suspended from school.” Results from preliminary analyses indicated that these items did not fit well with the other scale items. In addition, items related to bullying do not load together onto a single factor. However, it is important that schools are aware of how students experience and respond to bullying. Thus, the current recommendation is to use the 5-item version of the measure as described in this report to calculate externalizing behavior scale scores and norms but still ask the bullying questions. Future scale development work may consider potentially modifying the items and/or response format to increase the variability in the scores and to increase the strength of the factor loadings. In addition, further testing will be done to determine the feasibility of creating a separate bullying scale. Finally, work is needed to validate the Spanish version of this scale.

VII. Summary

Overall, the results of the psychometric testing indicate some initial support for the reliability and validity of the Externalizing Behavior scale with elementary students. The use of this measure could provide valuable information about students who are exhibiting externalizing behaviors at school. As research has shown, students who have display externalized behaviors at school frequently show indicators of low self-esteem, lower school achievement, and maladaptive achievement strategies (Aunola, Stattin & Nurmi, 2000; Ansary & Luthar, 2009). It is important for educators to be aware of this link to enable additional supports for this population.

VIII. References

- Fortier, M. S., Vallerand, R. J., & Guay, F. (1995). Academic motivation and school performance: Toward a structural model. *Contemporary Educational Psychology, 20*(3), 257-274.
- Green, J., Liem, G. A. D., Martin, A. J., Colmar, S., Marsh, H. W., & McInerney, D. (2012). Academic motivation, self-concept, engagement, and performance in high school: Key processes from a longitudinal perspective. *Journal of Adolescence, 35*(5), 1111-1122.

Ansary, N.S. & Luthar, S.S. (2009). Distress and academic achievement among adolescents of affluence: A study of externalizing and internalizing problem behaviors and school performance. *Development and Psychopathology*, 21, 319-341.

Vallerand, R. J., Pelletier, L. G., Blais, M. R., Briere, N. M., Senecal, C., & Vallieres, E. F. (1992). The academic motivation scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement*, 52(4), 1003-1017.

IX. Recommended Citation of Scale

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

Anderson-Butcher, D., & Amorose, A. J. (2012). Community and Youth Collaborative Initiative School Experience Surveys: Externalizing Behaviors Scale Elementary School. Columbus, OH: College of Social Work, The Ohio State University.

If this scale is used along with additional Community and Youth Collaborative Initiative School Community Surveys, then the following citation would be appropriate to cover all scales:

Anderson-Butcher, D., & Amorose, A. J. (2012). Community and Youth Collaborative Initiative School Experience Surveys. Columbus, OH: College of Social Work, The Ohio State University.