Community and Youth Collaborative Institute School Experience Surveys



Technical Report: Academic Press

Middle/High School Student Version

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ACADEMIC PRESS

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I. Definition of Construct

The Academic Press scale assesses the extent to which students perceive a normative emphasis on academic success and conformity to specific standards of achievement across their school community (including teachers and other students).

II. Relevance for Practice

Research identifies academic press as a critical component of effective schools, and it is also recognized as an effective measure for overall student achievement (Byrk, 2010; Murphy, Weil, Hallinger & Mitman, 1982; Lee & Smith, 1999; McDill, Natriello & Pallas, 1986).

III. Scale Description and Instructions

A. Items

- 1. Decisions at my school always focus on what is best for learning.
- 2. My teachers provide helpful feedback to students about their academic performance.
- 3. My teachers monitor whether students are learning on a regular basis.
- 4. My school values students' learning.

B. Response Options

Response options for each item include the following:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Disagree or Agree
- 4 = Agree
- 5 = Strongly Agree

C. Instructions for Respondents

These questions ask you about your experiences at school. For each of the following statements, please fill in ONE circle that best represents your answer.

D. Instructions for Scale Administers

For complete instructions on how to administer the survey, reference the "Student Survey Directions" that are printed within 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 didn't 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 4 items should be calculated and used as an indicator of academic press, with higher scores reflecting greater pressure.

V. Psychometric Properties of the Scale

A. Description of Sample

Participants used to test the psychometric properties of the scale included 2361 middle school (6-8th grade; 31.2%) and high school (9th-12th grade; 67.1%) students from around the state of Ohio. The participants included 1189 males (51.3%) and 1129 (48.7%) females. The majority of students identified themselves as White/Non-Hispanic (89.3%), Mixed/Multi-Racial (5.0%), African American (2.1%), Latino/Latina (1.1%), or Asian (0.8%), and 46.6% 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. Some data were collected using the online instrument, whereas others were collected via paper/pencil survey.

B. Basic Descriptive Statistics and Relevant Group Differences

| Sample | Mean | SD | Range | α |
|-----------------------------------|------|-----|-------|-----|
| Full Sample ($N = 2361$) | 3.64 | .86 | 1-5 | .84 |
| Gender | | | | |
| Males $(n = 1189)$ | 3.65 | .86 | 1-5 | .83 |
| Females $(n = 1129)$ | 3.64 | .85 | 1-5 | .86 |
| Race/Ethnicity | | | | |
| White/Non-Hispanic ($n = 2108$) | 3.66 | .84 | 1-5 | .84 |
| Other $(n = 253)$ | 3.48 | .93 | 1-5 | .87 |
| School-Type | | | | |
| Middle School ($n = 737$) | 3.83 | .77 | 1-5 | .80 |
| High School $(n = 2321)$ | 3.56 | .88 | 1-5 | .86 |

Note. Group specific data omits students who did not indicate their status. All groups were significantly different (p<.05), with the exception of gender. The effect size (η^2) for each comparison indicated that group membership accounted for less than 1% of the variance in the scores.

C. Maximum Value Percentages and Classification of Scores

| <u>Percentages</u> | | Classification of Scores | | |
|--------------------|------------------|--------------------------|----------|-------------------|
| Maximum Value | $\frac{1}{2}$ SD | Excelling | Emerging | Needs Improvement |
| 72.8% | 8.6% | 81+ | 81-64 | <64 |

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 press relative to normed data.

D. Relationship between Academic Press scores and other Student Perception Constructs

| Construct | r = |
|-----------------------------------|------|
| Academic Motivation ^a | .64* |
| School Connectedness ^a | .64* |
| Self-Reported Grades b | 13* |

Notes. ^a Average scores on the respective subscale from the Perceived School Experience Scale (Anderson-Butcher, Amorose, Iachini, & Ball, 2013). ^b Students responded to the question "On average what grades do you get in school?" with response options ranging from 1 (mostly A's) to 9 (mostly F's). * Relationship significant (p<.01).

E. Differences in Academic Press scores across School Performance Designations

| School Designation | Mean | SD |
|-----------------------------|------|-----|
| Academic Emergency | | |
| Academic Watch | | |
| Continuous Improvement | | |
| Effective $(n = 489)$ | 3.83 | .77 |
| Excellent $(n = 1086)$ | 3.59 | .85 |
| Excellence with Distinction | | |

Note. Designations were significantly different (p<.05), however the effect size (η ²) indicated that group membership accounted for less than 2% of the variance in the scores.

F. Factorial Validity

A confirmatory factor analysis (CFA) was conducting 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 Academic Press 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 χ^2 = 14.11, df = 2, p = .00; RMSEA = .051 (90% CI = .028-.077), SRMR = .01; CFI = 1.00, TLI = .99. The table below presents the completely standardized factor loadings and uniquenesses for each item. Squared multiple correlations averaged .58. The modification indices did not suggest any major areas of local strain.

| Item | Loading | Uniqueness |
|--|---------|------------|
| Decisions at my school always focus on what is best for learning. | .70 | .51 |
| My teachers provide helpful feedback to students about their academic performance. | .78 | .40 |
| My teachers monitor whether students are learning on a regular basis. | .79 | .38 |
| My school values students' learning. | .78 | .40 |

VII. Past and Future Scale Development

Based on the data, the current recommendation is to use the 4-item version of the Academic Press scale as described in this report. Future scale development work may consider adding additional items to capture a broader range of factors affecting experiences of academic press. Further work also is needed to validate the Spanish version of this scale.

VII. Summary

Overall, the results of the psychometric testing indicate initial support for the reliability and validity of the Academic Press scale with middle and high school students. The use of this measure could provide valuable information about the effectiveness of the school and as it relates to measuring overall student achievement.

VIII. References

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.

Anderson-Butcher, D., Amorose, A.J., Iachini, A., & Ball, A. (2012). The development of the Perceived School Experiences Scale. *Research on Social Work Practice*, 2(2), 186-194.

Bryk, A. S. (2010). Organizing schools for improvement. *Phi Delta Kappan*, 91, 23-30.

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.

Lee, V. E., & Smith, J. B. (1999). Social support and achievement for young adolescents in Chicago: The role of school academic press. *American Educational Research Journal*, 36, 907-945

McDill, E. L., Natriello, G., & Pallas, A. (1986). A population at risk: Potential consequences of tougher school standards for student dropouts. *American Journal of Education*, 94, 135-181.

Murphy, J. F., Weil, M., Hallinger, P., & Mitman, A. (1982). Academic press: Translating high expectations into school policies and classroom practices. *Educational Leadership*, 40, 22-26.

IX. Recommended Citation of Scale

When using the Academic Press 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 Experience Surveys: Academic Press Scale in Middle School and High School. Columbus, OH: College of Social Work, The Ohio State University.

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