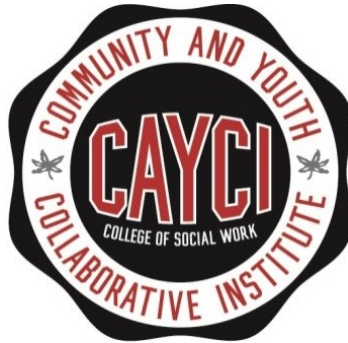


Community and Youth Collaborative Institute
School Experience Surveys



**Technical Report: Student Academic
Motivation**
Teacher/Staff Version

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STUDENT ACADEMIC MOTIVATION

Teacher/Staff Version

I. Definition of Construct

Academic motivation is defined as student's general interest, engagement, and enjoyment in learning and school. The *Student Academic Motivation* scale measures the extent to which teachers/staff perceive their students to be academically motivated.

II. Relevance for Practice

Evidence from the literature demonstrates that higher levels of academic motivation in middle and high school relate to improved academic outcomes, including grade point average and standardized test scores (Anderson & Keith, 1979; Eccles, Wong & Peck, 2006; Ratelle, Guay, Vallerand, Larose & Senécal, 2007; Walker & Greene, 2009; Gottfried, 1990).

III. Scale Description and Instructions

A. Items

1. Students have a positive attitude toward school.
2. Students make the most of their school experiences.
3. Students like the challenge of learning new things in school.
4. Students are confident in their ability to manage their school work

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
- * "Don't Know"

C. Instructions for Respondents

We are interested in learning about your perceptions of your students' motivation in 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 perceived student academic motivation, with higher scores representing higher perceptions of student academic motivation among the teachers and school staff.

V. Psychometric Properties of the Scale

A. Description of Sample

Participants used to explore the psychometric properties of the scale included 657 school staff members from various elementary schools (49.6%), middle schools/junior high schools (18.1%), and high schools (32.1%) around the state of Ohio. The majority of participants indicated at least part of their duties at the school included teaching (86.5%), with the remainder reporting non-teaching duties (e.g., support staff, administration). The amount of experience working at the school ranged from 1-10 (54.0%) or 11-20 (25.3%) to over 20 years (20.7%). Both female (72.3%) and male (21.8%) staff members were represented, and almost all identified themselves as Caucasian (93.6%). The participants varied in age with 12.6% reporting they were under 30 years of age, 40.3% 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.

B. Basic Descriptive Statistics and Relevant Group Differences

Sample	Mean	SD	Range	α
Full Sample ($N = 657$)	3.69	.96	1.00-5.00	.91
Gender				
Males ($n = 143$)	3.55	.86	1.75-5.00	.88
Females ($n = 475$)	3.75	.97	1.00-5.00	.92
Age				
Less than 30 years ($n = 76$)	3.43	.93	1.50-5.00	.88
30-44 years ($n = 270$)	3.70	.95	1.75-5.00	.91
45 years and above ($n = 311$)	3.75	.97	1.00-5.00	.92
Amount of Experience at the School				
1-10 years ($n = 355$)	3.59	.94	1.25-5.00	.90
11-20 years ($n = 166$)	3.71	1.00	1.00-5.00	.92
More than 20 years ($n = 136$)	3.94	.92	1.50-5.00	.91
Role as Staff Member				
Teaching ($n = 568$)	3.67	.97	1.00-5.00	.91
Non-Teaching (e.g., support staff, administrators) ($n = 89$)	3.81	.93	1.75-5.00	.90
School Level				
Elementary ($n = 326$)	3.95	.95	1.50-5.00	.92
Middle School/Junior High ($n = 119$)	3.49	.95	1.75-5.00	.93
High School ($n = 211$)	3.40	.88	1.00-5.00	.87

Note. 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 (η^2) indicated that group membership differences accounted for 2% of the variance in the scores in all cases except School Level where group membership account for 7.4% 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
73.8%	9.6%	>83	83-64	<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 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 student academic motivation relative to normed data.

D. Relationships between Student Academic Motivation Scale Score and Other Staff Perception Constructs

Construct ^a	r =
Student School Connectedness	.159
Learning Supports	.275

Notes. ^a Average score on the respective subscale scores from the CAYCI surveys (Anderson-Butcher, Amorose, Iachini, & Ball, 2013). Relationship exceeding |.077|significant (p<.05).

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 Academic Motivation 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 good based on commonly recommended cut off values for evaluating model fit (see Hu & Bentler, 1999), S-B $\chi^2 = 3.05$, $df = 2$, $p = .22$; RMSEA = .028 (90% CI = .000-.088), SRMR = .01; CFI = 1.00, TLI = 1.00. The table below presents the completely standardized factor loadings and uniquenesses for each item. Squared multiple correlations averaged .73. The modification indices did not suggest any major areas of local strain.

Item	Loading	Uniqueness
Students have a positive attitude toward school.	.86	.26
Students make the most of their school experiences.	.91	.18
Students like the challenge of learning new things in school.	.84	.29
Students are confident in their ability to manage their school work	.79	.37

VII. Past and Future Scale Development

An initial version of the Student Academic Motivation scale included 1 additional item: "Students feel their school experience is preparing them well for adulthood." Results from preliminary analyses indicated that this item did not fit well with the other scale items. Thus, the current recommendation is to use the 4-item version of the measure as described in this report. Future scale development work may consider adding additional items tapping aspects of academic motivation. There is also a need to test the psychometric properties of the scale with a larger sample of non-teaching staff (e.g., school administrators, support staff). Finally, work 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 Student Academic Motivation scale. The use of this measure could provide valuable information about how school staff perceive students' academic motivation and how that relates to academic outcomes, including grade point average and standardized test scores.

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.
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- Walker, C. O., & Greene, B. A. (2009). The relations between student motivational beliefs and cognitive engagement in high school. *The Journal of Educational Research, 102*, 463-471.

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 Academic Motivation 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.