

Considerations for Use of School Belonging Assessments

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As part of the larger library of instruments, EdInstruments catalogs assessments of school belonging for use in research and practice. These instruments are organized within *Student Well-Being > School Belonging* on our website. To guide potential users, in this white paper we describe school belonging as a construct, highlight psychometric properties to consider when measuring school belonging, and underscore specific considerations for use by researchers and practitioners. While we do not endorse individual instruments, we provide examples of instruments for various uses. Users can navigate the website to explore additional options.

What is School Belonging?

School belonging, often described as a student's bond or affiliation with their school, has been defined as "the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment"- whether that environment refers to the classroom, an academic department within a college, or the larger school setting (e.g., an elementary school or a university) (Goodenow & Grady, 1993).

School belonging is a broad construct, encapsulating students' sense of *respect, support, inclusion, and acceptance* in each academic setting (Goodenow & Grady, 1993). Many relational and experiential factors may contribute to a higher sense of school belonging (e.g., a strong teacher-student relationship). Researchers and practitioners may use the phrase school belonging interchangeably with "school connectedness", "school attachment", "school affiliation", "student likes school", "school bond" or other terms, although each of these should be thought of as *contributors* to a broader sense of school belonging (Allen & Bowles, 2012; Allen, Jamshidi et al., 2021). Measures of each of these factors may help researchers and practitioners understand a facet of school belonging but cannot fully measure students' sense of school belonging on their own.

In the postsecondary context, studies of school belonging generally focus on two related but distinct belonging-related constructs – *sense of belonging* and *belonging uncertainty* (Walton &

Brady, 2017). A student's *sense of belonging* refers to their overall assessments of the extent to which they belong in a setting. Their *belonging uncertainty* refers to the extent to which they see their belonging as fluid, especially in response to mundane negative events (Walton & Brady, 2017). Much of postsecondary belonging work focuses on students' experience through academic transitions and adapting to a novel academic and social environment (Gurin et al., 2002).

One of the most important concepts for researchers and educators seeking to measure belonging is to determine first what aspect of the construct is most important to their work and then from there, which measure or measures best fit with their population.

Why Measure Belonging?

A rich body of evidence finds positive effects of strong school belonging on a range of other student outcomes, including academic performance and persistence (Tinto, 1993). The Center for Disease Control and Prevention (CDC) highlights that students' sense of belonging or connectedness with school increases attendance, decreases violence, and buffers against severe mental health events, even amidst COVID (Dutcher et al., 2022; Gopalan et al., 2021). Their guide, "[School Connectedness: Strategies for Increasing Protective Factors Among Youth](#)," focuses recommendations for improving school belonging around providing opportunities for family engagement, developing positive classroom learning environments, developing close relationships between the adults in a child's life, and providing targeted professional development for school staff to meet student needs.

Measurement Applications and Considerations

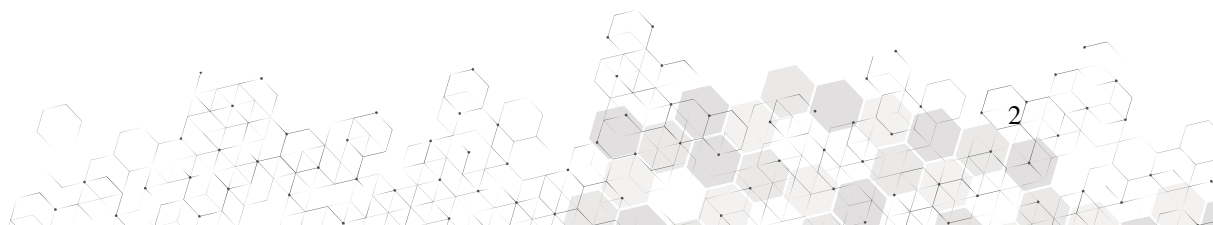
Assessments of school belonging can serve a range of purposes for researchers and practitioners. First, measures of school belonging can help schools and teachers *understand* students' connection to school and anticipate how that may affect future school outcomes; early identification of students who feel a lower sense of belonging may also help institutions to identify opportunities for intervention. Second, as schools and researchers study the *effect* of interventions or curricular strategies on student outcomes, measures of sense of belonging can complement other outcome measures by serving as important moderators or mechanisms of interest (Scrivener et al., 2015).

There are three key points to keep in mind when embarking on an attempt to measure school belonging for the above-mentioned applications:

School Belonging is not a competency

A student's "sense of school belonging" *is not a skill or a competency*, but rather a reflection of a student's state of mind. There are no "right" or "wrong" levels of school belonging. Having a low sense of belonging may be a very reasonable response to a school environment that is unsupportive or psychologically toxic.

School Belonging is internally constructed



Only an individual can report on their sense of belonging – it would not be appropriate to ask a teacher or parent to report on a student’s sense of belonging.

School Belonging is not fixed

Students’ sense of belonging can vary over time, even throughout a single school day, as students navigate both different environments and different interactions with other individuals in the school (Allen et al., 2021; Dutcher et al., 2022). Accordingly, a single point-in-time measure of school belonging may be insufficient to understand fully a student’s school experience. Repeated measures can provide a more comprehensive picture of students’ sense of belonging.

General Psychometric Considerations

As with the use of any instrument, users need to consider the technical adequacy and psychometric properties of school belonging assessments. For an overview of psychometric considerations, see our [Psychometric Considerations](#) guide.

Below we highlight psychometric considerations specific to school belonging. K-12 practitioners interested in assessing students’ sense of school belonging should first be clear about what student perceptions they are most interested in measuring. That is, are they interested in specific characteristics of the school environment (e.g., relationships with teachers, bullying and victimization, clarity of rules) or the overall sense of being accepted, respected, and supported in school?

Validity

One of the most important validity concerns to address with school belonging measures is the extent to which instruments capture the same construct across students’ gender, race/ethnicity, linguistic complexity, culture, or other relevant characteristics. In this consideration, it is important to distinguish varying levels of school belonging from varying student response to a school belonging instrument. It may be that in a given context, students of one race report a lower sense of belonging than students of another race. This is not necessarily a validity concern if this accurately captures all students’ sense of belonging in the moment. Pairing instrument validation with qualitative research on students’ sense of belonging could help inform this distinction.

One study of postsecondary students provides an illustrative example. The study found that invoking personal experiences with discrimination prior to the administration of a sense of belonging survey lowered the reported sense of belonging for students of color but not for white students (Mallett et al, 2011). Researchers and practitioners administering school belonging instruments should attend to the context in which students complete the survey, including how other instruments might affect a student’s sense of belonging.

Reliability

Reliability, while a useful consideration for many assessments of competencies, is a less applicable consideration for school belonging. The common forms of measuring reliability

include internal consistency reliability (e.g., how related are individuals' responses across items on a measure?), test-retest reliability (e.g., how stable are individual responses over time?), and inter-rater reliability (e.g., how similarly will two observers rate an observed behavior or response?). Given the self-reported nature of school belonging, inter-rater reliability is not a concern. Further, school belonging is an inherently fluid experience that can change day-to-day, if not moment-to-moment, making any reports of test-retest reliability difficult to interpret (Anderman, 2003; Gillen-O'Neel & Fuligni, 2013). However, prospective assessors should examine internal consistency of a scale to see whether the sub-scales of a school belonging instrument correlate (e.g., that multiple measures of teacher-student relationships correlate with each other).

Modification

One challenge in selecting a school belonging instrument is the proliferation of modified scales. For example, several studies draw on the 17-item Social and Academic Fit Scale (Walton & Cohen, 2017) but change it in ways that make useful cross-study comparisons difficult or impossible (e.g., changing the response scale or including only a subset of items). Such practices are understandable to minimize students' time spent completing assessments. However, these adaptive practices, combined with the limitations of existing measures, severely constrain the field's ability to integrate data and insights from different sources. There would be high value in the development of and validation of brief, standardized measures of belonging that can be used more extensively in practical settings.

Related to modification, most school belonging instruments included in this repository have either been tested in the K-12 context or in a postsecondary context. There are few instruments that have been tested across education levels, and both researchers and practitioners should only use instruments that have been validated for their target population.

Finally, many school belonging scales were validated using paper-and-pencil. For ease of administration, many researchers and practitioners adapt these scales to online administration. Further research is needed to understand the psychometric properties of instruments if administration format is changed.

The value of qualitative measures

Given the deeply personal nature of students' sense of school belonging, scales and quantitative measures cannot capture the full range and texture of students' sense of belonging in college. Qualitative analyses, especially culturally-responsive, critical analyses from diverse institutional contexts are valuable in contextualizing students' experiences and must be engaged with further to move research forward (Gray et al., 2018; Strayhorn, 2018).

Additional Resources for Use by Researchers

In addition to the instruments reported above which can be used to measure belonging in different contexts, several ongoing data collection efforts include questions about students' sense of school belonging and provide insights into national or longitudinal trends in belongingness.

First, several states administer school climate surveys which often include questions about students' sense of belonging or connectedness to their school and the federal government has developed tools to further facilitate school climate evaluations:

- *The ED School Climate Surveys (EDSCLS)*: Developed by the U.S. Department of Education and available online with administration support tools. School belonging questions include student assessment of the strength of their relationships with teachers' support (e.g., "my teachers care about me") and peers (e.g., "students like one another") and more direct questions about perceived belonging (e.g., "I feel like I belong") as well as proxies for student connectedness (e.g., "I regularly participate in extracurricular activities")

See the EdInstruments [School Climate section](#) for a summary of the other constructs that school climate surveys often include (e.g., sense of safety, measures of culturally responsive instruction).

Beyond widespread measurement of school belonging on school climate measures at the state and federal level, several longitudinal surveys include measures of school belonging - those interested in measuring school belonging could examine trends within these survey samples or adapt questions from these surveys for their own purposes:

- *National Longitudinal Study of Adolescent to Adult Health (Add Health)*: A school-based longitudinal study of a nationally-representative sample of adolescents in grades 7-12 in the United States in 1994-95. The Add Health includes questions related to students' sense of school belonging (e.g., "I feel like I am part of this school" and "I feel close to people at this school"). Researchers have used the Add Health data to examine the correlates of school belonging in the study sample (Henrich, Brookmeyer & Shahar, 2005; Kirkpatrick, 2020) and have adapted questions from the Add Health for use in program evaluation (Bonny et al., 2000).
- *Beginning Postsecondary Students Longitudinal Study (BPS)*: Waves of the BPS survey first-time, first-year U.S. college students. In 2011-12, the survey included a question about students' sense of belonging in college ("I feel that I am a part of [SCHOOL]). Researchers have used this measure to examine the correlates of school belonging in college students across school contexts and by student characteristics (Gopalan & Brady, 2019).
- *Your First College Year (YFCY) Survey*: Postsecondary institutions collaborate with the Higher Education Research Institute (HERI) at UCLA to administer the YFCY survey at the end (May-June) of students' first year of college. Students answer explicit questions about belonging (e.g., "I feel a sense of belonging to this campus" and "I feel I am a member of this college"). The YFCY has been administered at participating institutions since 2000, and researchers may register online with HERI to access select data or contact HERI to request more recent data access. Researchers have used the data to understand how individual and institutional characteristics affect sense of belonging (Hurtado et al., 2007).

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Suggested citation:

Meyer, K., Allen, K., Anderman, L., Brady, S., Gopalan, M., & Reschly, A. (2023). Considerations for use of school belonging assessments. EdInstruments Brief, Annenberg Institute for School Reform, Brown University. www.edinstruments.com.

