

Title: K-12 Students' Perceptions of Mattering in School: A Scoping Review Protocol

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Abstract

Objective: This scoping review aims to synthesize existing research on K-12 students' sense of mattering during the school day, including (1) how the construct is operationalized, (2) how it is measured, and (3) the outcomes with which it has been associated.

Introduction: Matterings, defined as the perception that one is noticed, valued, and able to contribute meaningfully to others, has been identified as a core psychological need associated with positive well-being and resilience in young people (Rosenberg & McCullough, 1981; Flett, 2025; Prilleltensky, 2014). Although prior research indicates that students' sense of mattering at school is protective against risk behaviors and poor mental health, much of the existing literature has focused on teachers' own sense of mattering or on college populations rather than on K-12 students' experiences in school. Evidence on how mattering is fostered among K-12 students is limited, with few studies examining the everyday school-based experiences that help students feel that they matter. Understanding how mattering is conceptualized and measured across K-12 settings, and the outcomes associated with students' sense of mattering, is essential for informing efforts to support safe and equitable school environments. The objective of this scoping review is to synthesize existing research on K-12 students' sense of mattering during the school day, including (1) how the construct is operationalized, (2) how it is measured, and (3) the outcomes with which it has been associated.

Inclusion criteria: This review will include studies that examine K-12 students' perceptions or experiences of mattering within in-person school settings during the school day. Eligible studies must address how mattering is conceptualized, experienced, or measured from students' perspectives. Studies will be limited to in-person K-12 school settings, published in English, peer-reviewed (including dissertations), and from 1981 to the present. Studies that focus solely on belonging, teachers' own sense of mattering, or out-of-school or after-school settings will be excluded.

Methods: The review will follow the JBI methodology for scoping reviews and will be reported in accordance with the PRISMA-ScR guidelines. Searches will be conducted in PsycINFO, ERIC, ProQuest, Scopus, EBSCO, Web of Science, and Sociological Abstracts. Screening and full-text review will be managed in Covidence with a team of reviewers. Two reviewers will independently review each article and reach a consensus on inclusion. Data will be extracted using a piloted tool that captures study characteristics, participant and contextual information,

conceptualization and measurement of mattering, and any outcomes examined in relation to students' sense of mattering. Results will be summarized using descriptive counts and thematic analysis, and presented in tables, charts, and narrative synthesis.

Introduction

Mattering has been identified as a core psychological need, particularly for children and adolescents (Flett, 2025). The construct of mattering was first defined by Rosenberg & McCullough (1981) as the feeling that one is important, noticed, and relied upon by others. More recently, mattering has been emphasized as a core psychological need, particularly for children and adolescents, where it is closely associated with happiness, positive affect, and overall well-being (Rosenberg, 1995; Flett, 2025). Prilleltensky (2014) describes mattering as encompassing two interdependent dimensions: feeling valued, or being recognized and appreciated by others, and adding value, or contributing meaningfully to one's social environment. For the construct of mattering to be fully realized, both dimensions must be present. Although related to constructs such as belonging and self-esteem, mattering has been empirically validated as a distinct dimension of the self-concept (Elliott et al., 2004).

Research has shown that school mattering is associated with protective outcomes for youth, including reduced risk behaviors and improved mental health (Edwards et al., 2021; Waterman et al., 2024). Evidence from community settings further indicates that feeling one matters to a non-parental adult is linked to lower rates of delinquency and violence (Murphey, 2004; Crean, 2012). While existing research on mattering in education has primarily focused on perceptions of mattering among college students or the self-perceptions of mattering among K-12 school staff (Gaudreault, Richards, & Mays Woods, 2018; Schriver & Harr Kulynych, 2021; Wilfong, 2021), much less is known about how K-12 students experience this construct at school. This represents a critical gap, as a strong sense of mattering at school may contribute to safer and more supportive learning environments.

To confirm the need for this review, a preliminary search of PsycINFO and ERIC was conducted with a trained research librarian in July 2025, followed by iterative meetings from August 2024 through November 2025. Initial searches used broad constructs, such as "belonging" and "mattering," yielding hundreds of results that were largely irrelevant to the research questions. We then refined the search to focus specifically on "mattering" and tested related terms (e.g., importance to others, feeling valued, adding value). These additional terms yielded many results unrelated to the psychological construct of mattering; therefore, they were excluded. The final strategy was established using "mattering" and "anti-mattering" combined with school-based terms (e.g., student, classroom, school). This approach produced a more focused and manageable pool of studies, yielding 250 results in PsycINFO and 233 in ERIC. We also did not identify any existing systematic or scoping reviews on this topic, which further supports the need for this work. Given the conceptual gaps in the literature and the absence of

prior reviews, a scoping review is the most appropriate method for comprehensively mapping what is currently known about the factors that contribute to K-12 students' sense of mattering at school.

The objective of this scoping review is to synthesize existing research on K-12 students' sense of mattering during the school day, including (1) how the construct is operationalized, (2) how it is measured, and (3) the outcomes with which it has been associated.

Review question

How has K-12 students' sense of mattering at school been conceptualized and measured, and what outcomes have been examined in relation to students' sense of mattering?

PCC element	Research Question Components (PCC Framework)
Participants	K-12 students
Concept	Students' sense of mattering, including how the construct is conceptualized and measured within school settings
Context	School-based settings during the school day (e.g., classrooms, hallways, lunchrooms, lunchrooms, and other in-school spaces)

Eligibility criteria

Participants

This review will include studies in which K-12 students are the primary participants of interest.

Inclusion:

- Studies that include students enrolled in K-12 schools (elementary, middle, or high school).
- Studies that examine K-12 students' perceptions, experiences, or feelings of mattering at school.
- Studies that explore school-based factors influencing students' sense of mattering during the school day (e.g., classroom interactions, peer relationships, teacher–student relationships, school climate).

Exclusion:

- Studies that focus on early childhood/preschool or higher education populations.
- Studies focusing exclusively on perceptions of mattering among adult participants (e.g., teachers, administrators, or parents) without including students' perceptions of mattering.

Concept

The concept of interest is students' perceptions and experiences of mattering in K-12 school environments during the school day.

Inclusion:

- Studies that explicitly examine students' sense or perceptions of mattering in school settings.
- Studies that examine factors influencing students' experiences of mattering during the school day (e.g., teacher–student interactions, peer relationships, classroom dynamics, or school climate).

Exclusion:

- Studies focused primarily on student belonging, connectedness, or inclusion without explicitly using the term “mattering.”
- Studies that examine teacher or staff members' perceptions of their own mattering without addressing student experiences of mattering.
- Studies that focus on out-of-school or extracurricular contexts (e.g., afterschool programs, sports teams, community clubs).

The decision to exclude “belonging”:

Although mattering and belonging are related, they are distinct constructs. Belonging refers to the sense of acceptance within a group (Baumeister & Leary, 1995). Mattering extends beyond recognition and contribution to include feeling valued by others and adding value to the group (Prilleltensky, 2014). For example, a student may belong to a classroom simply by being present, but they matter when a teacher notices their absence or assigns them a meaningful role on which others depend.

Context

The review will focus on K-12 school settings during the school day. This context encompasses both classrooms and other in-school environments where students interact with teachers, peers, and staff (e.g., hallways, cafeterias, playgrounds). No restrictions will be placed on geographic location, cultural or subcultural setting, or student demographics.

Inclusion:

- Studies that are conducted in K-12 schools (public, private, charter, or vocational).

- Studies that explore students' perceptions or experiences of mattering during the school day within school environments.
- Studies that are conducted in any cultural, racial, or geographic context.

Exclusion:

- Studies conducted in preschool/early childhood or higher education contexts.
- Studies focused on out-of-school or extracurricular environments (e.g., afterschool programs, clubs, or community organizations).
- Studies that examine virtual or online-only instructional contexts.
- Studies conducted in boarding schools or juvenile detention centers.

Types of Sources

This scoping review will consider all study designs (qualitative, quantitative, and mixed-methods) that meet the eligibility criteria. To capture the full breadth of research on students' sense of mattering at school, the review will include studies conducted in any country, provided they are published in English and are peer-reviewed (including dissertations). The review begins with studies published in 1981, when the construct of mattering was formally introduced in the literature (Rosenberg & McCullough, 1981).

Inclusion:

- Studies conducted in any country.
- Studies published in English.
- Studies that are peer-reviewed (including dissertations).
- Studies published between 1981 to present.

Exclusion:

- Studies published in languages other than English.
- Studies that are not peer-reviewed (e.g., book chapters, reports, editorials, opinion pieces).
- Studies published before 1981.

Methods

The proposed scoping review will be conducted in accordance with the methodological guidance for scoping reviews provided in the JBI Manual for Evidence Synthesis (Peters et al., 2020). This scoping review will systematically search for and synthesize the published literature on K-12 students' perceptions and experiences of mattering within school environments during the school day, to identify how the construct has been measured and examined across diverse educational contexts. The review will follow a protocol informed by the PRISMA-ScR guidelines (Tricco et al., 2018), which will guide the search of research databases, screening of published studies,

application of inclusion and exclusion criteria, and selection of relevant literature for charting and synthesis.

Search strategy

The search strategy will seek to locate published, peer-reviewed studies. An initial, limited search of PsycINFO was conducted to identify relevant articles on the topic. The words in the titles and abstracts of these articles, and the index terms used to describe them, were analyzed to develop a comprehensive search strategy for PsycINFO, ERIC, ProQuest, Scopus, EBSCO, Web of Science, and Sociological Abstracts (final list to be confirmed). Search terms will address the two main concepts of this review:

- Mattering (e.g., “mattering,” and “anti-mattering” and “antimattering”).
- Students/School setting (e.g., “students,” “school environment,” “classroom environment,” “learning environment,” “elementary school students,” and “high school students.”)

The search strategy, including all identified keywords and index terms, will be adapted for each database. The reference list of all included sources of evidence will be screened for additional studies. The full strategy for a single database will be presented in the Appendix. Studies published in English will be included; however, international studies are eligible if published in English. Studies published in 1981 or later will be included because Rosenberg and McCullough formally introduced the construct of mattering in 1981, marking the beginning of the scholarly literature on this topic.

Study/Source of Evidence selection

Following the search, all identified citations will be collated and uploaded to Covidence, an online platform for managing the screening and selection of articles. Duplicates will be removed prior to screening. Titles and abstracts will be independently and blinded to the reviewers by two reviewers against the inclusion criteria. The two reviewers will then meet to discuss and resolve discrepancies. The same process of independent, blind review will be applied during the full-text screening stage. Reasons for exclusion at the full-text stage will be recorded and reported in the scoping review. Any disagreements at any stage of screening will be resolved through discussion or, if necessary, with the involvement of additional reviewer(s).

The results of the search and the study inclusion process will be reported in full in the final scoping review and presented in a *Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) flow diagram* (Tricco et al., 2018).

Data Extraction

Data will be extracted from all studies that meet the inclusion criteria after full-text review. The research team will develop a draft data extraction tool to capture key information. The draft tool

will be piloted on a small number of included studies and revised as needed to ensure consistency and completeness. Likely fields for extraction include:

- Author(s) and year of publication
- Article type (e.g., journal article, dissertation)
- Study design/methodology
- Sample size
- Participant characteristics:
 - Student age or grade level
 - Socioeconomic status (if reported)
 - Gender and race/ethnicity (if reported)
- School context:
 - School level (elementary, middle, high)
 - School type (public, private, charter, alternative)
 - Geographic setting (urban, suburban, rural, if reported)
- Conceptualization of mattering:
 - How students' sense of mattering was defined, described, or theoretically framed.
- Measurement of mattering:
 - How students' sense of mattering was measured or operationalized (e.g., surveys, interviews, observations, or proxy constructs/terms), including the specific instrument(s) used when applicable.
- Context in which mattering was examined:
 - School-based contexts or relational features examined in relation to students' sense of mattering (e.g., teacher-student interactions, peer relationships, classroom dynamics, school climate, recognition practices, opportunities to contribute).
- Outcomes associated with mattering:
 - Academic, social-emotional, behavioral, mental health, or other outcomes examined in relation to students' sense of mattering.
- Key findings relevant to the research question:
 - Summary of findings related to the conceptualization, measurement, context, and outcomes of students' sense of mattering.

A primary reviewer will extract the data from each study, and a secondary reviewer will confirm the accuracy of the extraction. Any discrepancies will be resolved through discussion and consensus, or, if necessary, with the involvement of an additional reviewer. If appropriate, authors of studies may be contacted for clarification or to request missing information.

The draft data extraction instrument is provided in the Appendices, and will be modified as necessary during the review process. Any modifications will be documented in the final scoping review.

Data Analysis and Presentation

Extracted data will first be collated and analyzed descriptively to map the breadth of the evidence. This analysis will include:

- Quantitative summary of study characteristics (e.g., counts of study designs, school levels, participant demographics, geographic contexts, measures of mattering).
- Qualitative thematic analysis of extracted data related to how students' sense of mattering has been conceptualized and explored across studies, as well as the in-school experiences and contextual factors associated with mattering during the school day (e.g., teacher–student interactions, peer relationships, classroom dynamics, recognition practices, opportunities to contribute, and broader school climate).

The results will be presented in tabular and charted formats to summarize study characteristics and key findings. Visual mapping techniques will be used to illustrate patterns across conceptual definitions of mattering, measurement approaches, in-school contexts in which mattering has been examined, and outcomes associated with students' sense of mattering.

A narrative summary will accompany the tabulated and/or charted data, synthesizing the findings and their relation to the research question. This synthesis will highlight patterns across studies, identify implications for teacher practice and school context, and point to gaps that warrant further investigation.

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Conflicts of interest

There is no conflict of interest in this project.

References

- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497–529.
- Elliott, G., Kao, S., & Grant, A. M. (2004). Mattering: Empirical validation of a social-psychological concept. *Self and Identity*, 3(4), 339-354.
- Flett, G. L. (2025). Mattering as a core need in children and adolescents: Theoretical, clinical, and research perspectives. American Psychological Association.
- Gaudreault, K. L., Richards, K. A. R., & Mays Woods, A. (2018). Understanding the perceived mattering of physical education teachers. *Sport, Education and Society*, 23(6), 578-590.
- Ludwig, K. A., & Warren, J. S. (2009). Community violence, school-related protective factors, and psychosocial outcomes in urban youth. *Psychology in the Schools*, 46(10), 1061-1073.
- Peters, M. D., Marnie, C., Tricco, A. C., Pollock, D., Munn, Z., Alexander, L., ... & Khalil, H. (2020). Updated methodological guidance for the conduct of scoping reviews. *JBIM evidence synthesis*, 18(10), 2119-2126.
- Prilleltensky, I. (2014). Meaning-making, mattering, and thriving in community psychology: From co-optation to amelioration and transformation. *Intervención psicosocial*, 23(2), 151.
- Rosenberg, M., & McCullough, B. C. (1981). Mattering: Inferred significance and mental health among adolescents. *Research in Community & Mental Health*, 2, 163–182.
- Schrivver, J. L., & Harr Kulynych, R. (2021). Do Professor–Student Rapport and Mattering Predict College Student Outcomes? *Teaching of Psychology*, 50(4), 342-349.
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., ... & Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Annals of internal medicine*, 169(7), 467-473.
- Wilfong, R. (. (2021). *The mattering model: The foundational elements of mattering for K-12 educators* (Order No. 28319407). Available from ProQuest Dissertations & Theses Global; ProQuest Dissertations & Theses Global Closed Collection. (2537966312). Retrieved from <https://proxy.lib.umich.edu/login?url=https://www.proquest.com/dissertations-theses/mattering-model-foundational-elements-k-12/docview/2537966312/se-2>

Appendices

Appendix I: Search strategy

Database: PsychInfo

Search String:

1. XB (matter OR "anti-matter" OR antimatter)
2. DE "Academic Environment" OR DE "Academic Settings" OR DE "Boarding Schools" OR DE "Charter Schools" OR DE "Classmates" OR DE "Classroom Behavior Modification" OR DE "Classroom Behavior" OR DE "Classroom Discipline" OR DE "Classroom Environment" OR DE "Classroom Management" OR DE "Educational Personnel" OR DE "Elementary Education" OR DE "Elementary Schools" OR DE "High School Students" OR DE "High Schools" OR DE "Junior High School Students" OR DE "Junior High Schools" OR DE "Kindergarten Students" OR DE "Kindergartens" OR DE "Learning Environment" OR DE "Middle School Students" OR DE "Middle Schools" OR DE "School Administrators" OR DE "School Counselors" OR DE "School Environment" OR DE "School Nurses" OR DE "School Principals" OR DE "School Psychologists" OR DE "Schools" OR DE "Student Attitudes" OR DE "Student Characteristics" OR DE "Student Engagement" OR DE "Students" OR DE "Teacher Aides" OR DE "Teacher Attitudes" OR DE "Teacher Characteristics" OR DE "Teacher Effectiveness" OR DE "Teacher Expectations" OR DE "Teacher Personality" OR DE "Teacher Student Interaction" OR DE "Teachers" OR DE "Teaching Methods" OR XB(student* OR classroom* OR school* OR teacher* OR kindergarten OR teaching)
3. 1 AND 2 AND 3
4. Limit 5. to English language
5. Limit 6. to peer-reviewed journal OR dissertation
6. Limit 7. to publication year 1981–present

Appendix II: Data extraction instrument

Field	Description	Entry
Author/Year	Author(s), year published	
Article type	Journal, dissertation	
Study design/methodology	Qualitative (e.g., ethnography), quantitative (e.g., survey, RCT), mixed methods	
Sample size	Number of K-12 student participants	
Student characteristics	Age/grade level, gender, race/ethnicity (if reported)	

School level	Elementary, middle, high	
School type	Public, private, charter, alternative	
Geographical context	Urban, suburban, rural (if reported)	
Conceptualization of mattering	How students' sense of mattering was defined, described, or theoretically framed.	
Measurement of mattering	How students' sense of mattering was measured or operationalized (e.g., surveys, interviews, observations, or proxy constructs/terms), including the specific instrument(s) used when applicable.	
Context in which mattering was examined	School-based contexts or relational features examined in relation to students' sense of mattering (e.g., teacher-student interactions, peer relationships, classroom dynamics, school climate, recognition practices, opportunities to contribute).	
Outcomes associated with student mattering	Academic, social-emotional, behavioral, or other outcomes examined in relation to students' sense of mattering.	
Key findings relevant to RQ	Summary of findings related to the conceptualization, measurement, context, and outcomes of students' sense of mattering	