

**ACADEMIC ENGAGEMENT IN HIGHER EDUCATION RESEARCH: A
PRISMA-BASED SYSTEMATIC REVIEW OF SCOPUS-INDEXED
STUDIES (2021–2024)****Nabila Qurrotu Aini¹, Vina Dartina¹, Aisha Nadya², Irfan Fahriza^{1*}, Nadia Khoerun
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Abstract: Academic engagement—students' behavioural, emotional, and cognitive investment in learning—is one of the most robust predictors of achievement, persistence, and well-being in higher education. However, the field is expanding so rapidly that periodic syntheses are needed to map how, where, and with whom engagement is being studied. This systematic review, conducted in accordance with the PRISMA 2020 statement, maps recent Scopus-indexed research on academic engagement. Records were retrieved from the Scopus database and limited to open-access, English-language journal articles in the psychology subject area published between 2021 and 2024. Of 40 records identified, 13 studies met all eligibility criteria. Four questions guided the synthesis, concerning the temporal distribution, research designs, populations, and geographic spread of the evidence. The results show that publication activity peaked in 2023 (five studies), that quantitative survey designs dominate the field (six studies), followed by mixed-methods (three), qualitative (two), and intervention-based designs (two). Contrary to common assumptions, twelve of the thirteen studies were conducted in higher education settings, and the corpus spans ten countries across five continents, with South Africa, Portugal, and China contributing two studies each. Six studies appeared in Q1 journals and six in Q2 journals, and the corpus has accumulated 184 citations, indicating the growing scholarly impact of the topic. The review concludes that pandemic-era disruption has repositioned academic engagement as a central lens for understanding technology-mediated learning, and it identifies longitudinal, qualitative, and Global South research as priority gaps for the next research cycle.

Keywords: academic engagement; student engagement; higher education; systematic review; PRISMA

INTRODUCTION

Academic engagement refers to the quality and intensity of students' involvement in learning, encompassing behavioural, emotional, and cognitive dimensions (Fredricks et al., 2004; Schaufeli et al., 2002). Behavioural engagement is expressed in observable actions such as attendance, task completion, and participation in discussion (Finn & Zimmer, 2012);

emotional engagement covers students' enthusiasm, interest, and sense of belonging in learning environments (Pekrun & Linnenbrink-Garcia, 2012); and cognitive engagement denotes the mental investment students make in learning, including attention, self-regulation, and the use of deep learning strategies (Pintrich & Schrauben, 1992). These dimensions are interrelated rather than independent, and together they shape the overall quality of the student learning experience (Kahu, 2013).

A substantial body of evidence links engagement to valued educational outcomes. Students who are behaviourally, emotionally, and cognitively engaged achieve higher grades, understand material more deeply, and transfer knowledge more readily to new situations (Li & Lerner, 2013; Parsons & Taylor, 2011). Pedagogies that deliberately promote engagement – collaborative, problem-based, and community-based approaches – have accordingly become a cornerstone of instructional reform in higher education (Smith et al., 2005). The COVID-19 pandemic sharpened this agenda: the abrupt migration to online and blended delivery raised urgent questions about how engagement can be sustained when face-to-face interaction is constrained (Argyriou et al., 2022; Darling-Aduana et al., 2022).

Given the rapid expansion of the field, periodic evidence syntheses are needed to track how engagement research is evolving. Existing large-scale reviews have concentrated on conceptual refinement of the construct (Kahu, 2013; Wong & Liem, 2022) or on antecedents and outcomes of engagement in general. Far less attention has been paid to mapping the recent, post-pandemic wave of empirical work – its methodological profile, the populations it studies, and its geographic distribution. Such a mapping is practically important: it tells researchers where the evidence base is thick, where it is thin, and which designs and contexts the next cycle of studies should prioritise.

This study addresses that gap through a systematic review of Scopus-indexed research on academic engagement published between 2021 and 2024. Four research questions (RQs) guided the review:

RQ1. How are the included studies distributed across publication years?

RQ2. Which research designs dominate recent academic engagement research?

RQ3. Which populations and educational settings are studied?

RQ4. How are the studies distributed geographically, and what is the impact profile (journal quartile and citations) of this body of work?

METHOD

Design

This study is a systematic literature review conducted and reported in accordance with the PRISMA 2020 statement (Page et al., 2021). The unit of analysis is the individual published study, and the synthesis is descriptive: included studies were charted and aggregated according to publication year, research design, population and setting, country, journal quartile, and citation count. The review protocol was not registered in a public registry (e.g., PROSPERO or OSF); however, the eligibility criteria, search strategy, and data-charting form were piloted and agreed upon by all authors prior to execution to ensure transparency and reproducibility.

Eligibility Criteria

Studies were eligible if they (a) were published between 2021 and 2024; (b) were peer-reviewed journal articles indexed in Scopus; (c) were written in English; (d) were available as open access; (e) fell within the psychology subject area; and (f) examined academic or student engagement as a core construct (as an outcome, predictor, mediator, or object of measurement or intervention). Records were excluded if they were reviews, conference proceedings, book chapters, or editorials; if engagement appeared only incidentally; or if the full text was unavailable. Table 1 summarises the criteria.

Table 1. Inclusion and exclusion criteria

Dimension	Inclusion	Exclusion
Time frame	Published 2021–2024	Published outside the range
Source type	Peer-reviewed journal article (Scopus)	Reviews, proceedings, chapters, editorials
Language	English	Other languages
Access	Open access	Paywalled
Focus	Academic/student engagement as a core construct	Engagement mentioned only incidentally

Information Sources and Search Strategy

The Scopus database was searched using combinations of the terms "academic engagement", "student engagement", "engagement", "students", and "higher education" applied to article titles, abstracts, and keywords (TITLE-ABS-KEY). Scopus was selected because it is one of the largest curated abstract-and-citation databases of peer-reviewed literature and applies consistent quality thresholds to indexed journals. The search was limited to the psychology subject area, open-access documents, English, and the document type "article". The exact Boolean search string executed in Scopus on 15 January 2025 was: TITLE-ABS-KEY ("academic engagement" OR "student engagement" OR "engagement") AND TITLE-ABS-KEY ("students" OR "higher education") AND SUBJAREA (psyc) AND DOCTYPE (ar) AND LANGUAGE (english) AND OPENACCESS, limited to PUBYEAR > 2020 AND PUBYEAR < 2025.

Selection Process

The search returned 40 records. No duplicates were detected. Titles and abstracts of all 40 records were screened against the eligibility criteria, and the database limits (subject area, access, language, document type) excluded 21 records, leaving 19 records retrieved in full. At the eligibility stage, six reports were excluded because academic engagement was not their core construct, resulting in 13 included studies. Screening was performed by two reviewers (NQA and VD) who screened titles and abstracts independently; disagreements were resolved through discussion, and a third reviewer (IF) was consulted when consensus could not be reached. Inter-rater agreement at the title-and-abstract stage was high (Cohen's $\kappa = 0.92$). Figure 1 presents the PRISMA 2020 flow diagram.

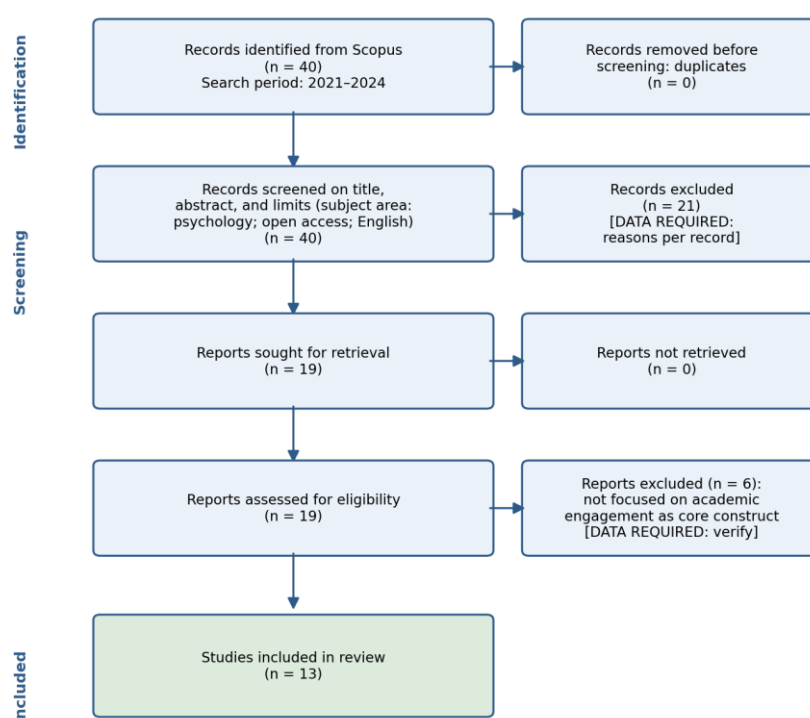


Figure 1. PRISMA 2020 flow diagram of the study selection process

Data Extraction and Synthesis

For each included study, the following variables were charted into a structured matrix: author(s) and year, country of data collection, educational setting and population, research design, journal, journal quartile (Scimago Journal Rank at the time of extraction), and Scopus citation count at the time of extraction. Frequencies and percentages were then computed for each mapping variable, and the studies' substantive findings were synthesised narratively around recurrent themes.

RESULT AND DISCUSSION

Characteristics of the Included Studies

Table 2 summarises the 13 included studies. The corpus spans ten countries, twelve higher education contexts and one K-12 context, and seven journals, with Education Sciences contributing six articles.

Table 2. Characteristics of the included studies (n = 13)

No.	Study	Country	Setting	Design	Journal (quartile)	Cit.
1	Pichardo et al. (2021)	Spain	Higher education	Mixed methods	Education Sciences (Q2)	90
2	Argyriou et al. (2022)	United Kingdom	Higher education	Intervention (blended learning)	Psychology Learning & Teaching (Q1)	28

No.	Study	Country	Setting	Design	Journal (quartile)	Cit.
3	Darling-Aduana et al. (2022)	United States (Georgia)	K-12	Quantitative	AERA Open (Q1)	1
4	Dias (2022)	Portugal	Higher education	Qualitative (case study)	Education Sciences (Q2)	15
5	Pham et al. (2022)	Vietnam	Higher education	Quantitative	Education Sciences (Q2)	11
6	Hudig et al. (2023)	Netherlands	Higher education	Intervention (goal setting)	Current Psychology (Q1)	6
7	Sá (2023)	Portugal	Higher education	Qualitative	Education Sciences (Q2)	19
8	Simelane-Mnisi (2023)	South Africa	Higher education	Mixed methods	Education Sciences (Q2)	6
9	Yau & Shu (2023)	China (Hong Kong)	Higher education	Quantitative	Journal of Pacific Rim Psychology (Q1)	3
10	Zitha et al. (2023)	South Africa	Higher education	Quantitative	Education Sciences (Q2)	1
11	Isaeva et al. (2024)	Azerbaijan	Higher education	Mixed methods	International Journal of Educational Psychology (Q3)	0
12	Liu et al. (2024)	China	Higher education	Quantitative	BMC Psychology (Q1)	0
13	Marcionetti & Zammiti (2024)	Italy/Switzerland	Higher education	Quantitative (scale validation)	Counselling Psychology Quarterly (Q1)	4

Note. Citation counts are Scopus citations retrieved on 15 January 2025. Journal quartiles are based on Scimago Journal Rank (SJR) 2024.

RQ1: Distribution of Studies by Publication Year

Figure 2 shows the temporal distribution of the included studies. Publication activity rose from one study in 2021 to four in 2022, peaked at five studies in 2023, and stood at three studies in 2024. The upward trajectory across 2021–2023 coincides with the period during which higher education systems worldwide were absorbing and then evaluating the consequences of emergency remote teaching.

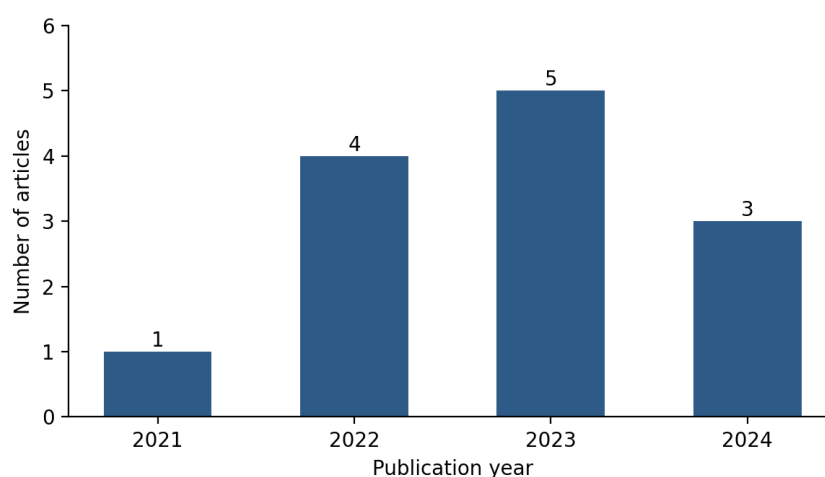


Figure 2. Number of included studies by publication year

The shift to online and blended delivery created new challenges for educators and students alike: reduced face-to-face interaction, less conducive study environments, and heightened risk of social isolation, all of which threaten engagement. It is therefore unsurprising that a large share of the corpus either examines engagement during pandemic conditions directly (Darling-Aduana et al., 2022; Pichardo et al., 2021; Yau & Shu, 2023) or evaluates the technology-mediated pedagogies that the pandemic accelerated (Argyriou et al., 2022; Simelane-Mnisi, 2023). The moderate decline observed in 2024 should be interpreted with caution, as records for that year may not have been fully indexed at the time of the search.

RQ2: Distribution of Studies by Research Design

Table 3. Research designs of the included studies

Design	n	%	Studies
Quantitative (survey/secondary data)	6	46.2	Darling-Aduana et al. (2022); Pham et al. (2022); Yau & Shu (2023); Zitha et al. (2023); Liu et al. (2024); Marcionetti & Zammitti (2024)
Mixed methods	3	23.1	Pichardo et al. (2021); Simelane-Mnisi (2023); Isaeva et al. (2024)
Qualitative	2	15.4	Dias (2022); Sá (2023)
Intervention/design-based	2	15.4	Argyriou et al. (2022); Hudig et al. (2023)

Quantitative designs dominate the corpus (46.2%) and typically employ online questionnaires with established engagement scales. This dominance is partly pragmatic: online quantitative data collection is efficient, reaches large samples quickly, and was often the only feasible option under pandemic restrictions. It also reflects the field's psychometric tradition, exemplified in the corpus by the validation of the Italian Higher Education Student Engagement Scale (Marcionetti & Zammitti, 2024). Nevertheless, the comparative scarcity of qualitative and intervention studies is a substantive limitation of the current evidence base: qualitative work is needed to understand how students experience engagement in digitally mediated environments (Dias, 2022; Sá, 2023), and experimental or design-based work is

needed to establish which pedagogical arrangements actually cause engagement to improve (Argyriou et al., 2022; Hudig et al., 2023).

RQ3: Populations and Educational Settings

Twelve of the thirteen studies (92.3%) were conducted in higher education settings with university students, academics, or both; only one study (Darling-Aduana et al., 2022) examined K-12 learners. This concentration is consistent with the search strategy, which included "higher education" among its terms, but it also mirrors a broader disciplinary pattern: universities were the institutions most abruptly transformed by emergency remote teaching, and adult learners' engagement in self-directed, technology-mediated study became an acute practical concern for institutional retention and quality assurance (Kahu, 2013; Sá, 2023). Within the higher education corpus, the populations studied are heterogeneous, ranging from first-year students negotiating belonging (Dias, 2022) and extended-curriculum-programme students (Zitha et al., 2023) to whole-institution samples (Isaeva et al., 2024) and academics deploying learning management systems (Simelane-Mnisi, 2023).

RQ4: Geographic Distribution and Impact Profile

Table 4. Geographic distribution of the included studies

No.	Country/territory	Economic classification	n
1	South Africa	Developing	2
2	Portugal	Developed	2
3	China (incl. Hong Kong SAR)	Developing/Developed (SAR)	2
4	Italy/Switzerland	Developed	1
5	United States (Georgia)	Developed	1
6	Netherlands	Developed	1
7	Azerbaijan	Developing	1
8	Spain	Developed	1
9	Vietnam	Developing	1
10	United Kingdom	Developed	1

The corpus spans ten countries and territories across Europe, Africa, Asia, and North America, indicating that academic engagement is a genuinely global research concern rather than an agenda confined to well-resourced systems. In developed systems, the included studies concentrate on optimising established provision – blended learning design (Argyriou et al., 2022), goal-setting interventions (Hudig et al., 2023), and retention through belonging (Dias, 2022; Sá, 2023). In developing systems, the emphasis falls on equity and capability building: fostering engagement among students in extended curriculum programmes in South Africa (Zitha et al., 2023), diagnosing institutional variation in Azerbaijan (Isaeva et al., 2024), and reducing disengagement in Vietnamese universities (Pham et al., 2022). Notably, no study in the corpus was conducted in Indonesia or elsewhere in Southeast Asia beyond Vietnam, underscoring a regional gap that Indonesian researchers are well positioned to fill.

Regarding impact, six studies (46.2%) appeared in Q1 journals, six (46.2%) in Q2 journals, and one (7.7%) in a Q3 journal. The corpus has accumulated 184 Scopus citations ($M = 14.2$, $Mdn = 6$), led by Pichardo et al. (2021) with 90 citations—a study of a low-threshold classroom response technology that suggests pragmatic, immediately transferable engagement tools attract the broadest scholarly uptake.

Thematic Synthesis

Beyond the mapping questions, three substantive threads run through the corpus. First, teachers matter as designers of engagement. Studies converge on the finding that educators who understand the engagement construct can deliberately architect environments that stimulate curiosity, motivation, and participation (Hudig et al., 2023; Sá, 2023), and that this design capability must now extend to online modules and learning management systems (Simelane-Mnisi, 2023). Educators, therefore, need to be empowered as "architects" of learning in the digital era, supported by institutional training and resources.

Second, collaboration amplifies engagement. Collaborative pedagogies create dynamic, interactive, and supportive learning environments that strengthen engagement and, through it, achievement and personal development (Isaeva et al., 2024; Pham et al., 2022; Zitha et al., 2023). This echoes the long-standing argument that pedagogies of engagement such as cooperative and problem-based learning are among the most reliable levers available to instructors (Smith et al., 2005).

Third, engagement functions as a psychological resource. Engaged students appraise academic stress as a challenge rather than a threat (Liu et al., 2024), and dispositional factors such as grit operate on engagement through motivational pathways (Yau & Shu, 2023). During the pandemic, engagement was closely tied to resilience—students' capacity to keep learning under unprecedented conditions (Yau & Shu, 2023)—and teachers who exploited varied online materials were better able to keep students interested and active (Argyriou et al., 2022; Darling-Aduana et al., 2022). Engagement thus emerges not merely as an outcome to be maximised but as a protective mechanism for student well-being, a finding of direct relevance to counselling and student support services (Marcionetti & Zammitti, 2024).

Limitations

This review has four limitations that bound the generalisability of its findings. First, the corpus is small ($n = 13$) because the search was restricted to a single database (Scopus), one subject area (psychology), open-access documents, and English-language articles; relevant work in Web of Science, ERIC, non-psychology subject areas, paywalled journals, and other languages was not captured. Second, the restriction to open access may bias the corpus toward journals with article-processing-charge models (e.g., Education Sciences, which contributes six of the thirteen studies). Third, citation counts are time-sensitive and disadvantage recent publications; the 2024 studies' low counts reflect their youth, not their quality. Fourth, no formal risk-of-bias or methodological quality appraisal was conducted, as the aim was descriptive mapping rather than effect estimation. Future syntheses should broaden the database coverage, include grey literature, and add quality appraisal and, where feasible, meta-analytic aggregation.

CONCLUSION

This PRISMA-based systematic review mapped 13 Scopus-indexed studies on academic engagement published between 2021 and 2024. The evidence base peaked in 2023, is dominated by quantitative survey designs (46.2%), is concentrated overwhelmingly in higher education (92.3%), and spans ten countries with a balanced mix of developed and developing systems; nearly half of the studies appeared in Q1 journals. Substantively, the corpus positions academic engagement as a foundation for both achievement and well-being: engaged students perform better, appraise academic challenges as opportunities rather than burdens, and are better equipped with the critical thinking, problem-solving, and collaborative skills required beyond graduation. The review also exposes clear priorities for the next research cycle: longitudinal and intervention designs that can establish causality, qualitative work on students' lived experience of digitally mediated engagement, systematic attention to under-represented regions—including Indonesia and the wider Southeast Asia—and institutional investment in educators' capability to design engagement-rich online learning. Addressing these gaps will require institutional support in the form of training, mentoring, and resourcing, so that the momentum generated by the pandemic-era surge in engagement research translates into durable improvements in educational practice.

DECLARATIONS

Author contributions: N.Q.A.: conceptualization, methodology, formal analysis, writing – original draft. V.D.: data curation, investigation, writing – original draft. A.N.: validation, writing – review & editing. I.F.: conceptualization, supervision, writing – review & editing. N.K.N.: investigation, visualization, writing – review & editing. T.S.S.: data curation, writing – review & editing. All authors have read and approved the final manuscript.

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