



Work-Life Balance in the Teaching Profession: A Bibliometric Analysis (2015–2025)

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ABSTRACT

The balance between professional and personal life among educators has become a critical issue as teaching demands, administrative workloads, and technology driven tasks increasingly blur the boundary between work and home life. This study maps the development, intellectual structure, and themes of teacher work life balance research over the last decade using a bibliometric approach. Previous bibliometric studies on work life balance have generally remained cross sectoral and generic, with limited attention to the occupational specificity and institutional realities of teachers. Data were retrieved from Scopus and analyzed using VOSviewer and Biblioshiny in RStudio. From an initial corpus of 297 records, 160 publications published between 2015 and 2025 were selected through inclusion exclusion criteria and the PRISMA flow. The results show an increase in publication output, with a rise in 2023 and 2024 and stabilization in 2025, indicating field maturation. *Frontiers in Psychology* was the leading source, while the United States and China contributed the citation impact. Keyword co-occurrence analysis identified dominant themes including teachers, work life balance, job satisfaction, burnout, and stress, organized into five connected clusters, with survey and cross-sectional designs prevailing. This article uniquely contributes to education literature by offering a teacher centered bibliometric map that clarifies the intellectual structure, thematic evolution, and policy relevant directions of work life balance research. The findings position teacher work life balance as a structural educational issue, not merely an individual coping problem, and support institutional and policy interventions to manage workload, strengthen welfare support, and sustain teacher retention.

Keywords: Work–Life Balance; Teachers; Job Satisfaction; Burnout; Bibliometric Analysis.

INTRODUCTION

In the preceding two decades, the pedagogical vocation has experienced an increasingly intricate transformation in responsibilities; educators are no longer perceived merely as instructors, but also as implementers of educational objectives that are progressively shaped by reform mandates, societal anticipations, and heterogeneous classroom dynamics (Kaur & Randhawa, 2024; W. Liu et al., 2024). These alterations coincide with escalating workloads, such as burgeoning class sizes, quality expectations, and institutional pressures, whilst the infiltration of technology introduces a novel occupational reality that expands the demarcations between professional and personal domains (Akbar Jan et al., 2022; Huang et al., 2022; G. Liu et al., 2024).

In this framework, work—life equilibrium or WLB emerges as an increasingly salient concern because teaching positions necessitate substantial physical exertion and possess the potential to disrupt the equilibrium of professional and personal existence (Ben-Uri et al., 2022; Mulyani et al., 2021; Thakur et al., 2017).

WLB is comprehended as an individual's degree of contentment in fulfilling occupational and non-occupational roles with minimal role conflict, both within the sphere of work and in domestic settings (Priyanka et al., 2024; Richter et al., 2015). The literature further posits the expansion of the term from work—family to work—life to be more inclusive, not solely for married individuals, while accentuating the concord between professional duties, familial responsibilities, and other personal pursuits. At this juncture, Role Balance Theory underscores that an optimal equilibrium necessitates a relatively balanced distribution of time, attention, and gratification to work and non-work roles (Aoyagi et al., 2018; Kocak et al., 2024; Misfin et al., 2024).

WLB is not merely pertinent as an individual concern, but also as an organizational matter, as entities can and must promote WLB through policies and work practices that facilitate a healthier amalgamation of roles (Nilsson et al., 2017; Priya & Ahamed, 2025). In various professional contexts, an emphasis on WLB is correlated with engagement and retention, and is associated with performance: individuals with a more favorable work—life equilibrium tend to execute their tasks more effectively and sustainably. These ramifications render WLB worthy of exploration as a welfare foundation that influences work quality and organizational stability (Edeh et al., 2024; Guo et al., 2024; Zhang & Dousin, 2025; Zou et al., 2025).

The attributes of the teaching profession exacerbate the WLB dilemma. Educators' hours frequently extend beyond formal office hours and proliferate to activities beyond the classroom, encompassing administrative responsibilities and various supplementary roles that are not always congruent with fundamental teaching tasks (Li et al., 2021; Thakur et al., 2018; Wang et al., 2024). Consequently, numerous educators encounter stress, dissatisfaction, and challenges in reconciling teaching commitments with non-teaching obligations (Pu et al., 2017; Ramegowda & Anidia, 2024). Curriculum advancements and the demands of school activities can further amplify the burden, engendering a sentiment of being overwhelmed, which ultimately jeopardizes the quality of the students' learning experience and output, as well as being linked to teacher retention dilemmas (Hidalgo-Andrade et al., 2021; Pan et al., 2022).

Although WLB investigations have proliferated extensively, this inquiry substantiates that prevailing WLB bibliometric studies still exhibit a tendency towards generality and cross-sectoral analysis, with scant attention to the occupational dynamics characteristic of the teaching profession. Thus, a distinctly focused mapping of WLB within an educational context is imperative to encapsulate the intellectual framework, thematic clusters, and evolving subjects across temporal dimensions, particularly as research interest intensifies concerning issues of burnout, job satisfaction, stress, and retention that characterize WLB as a structural, rather than solely personal matter. To address these requirements, a pertinent bibliometric methodology is

employed as it facilitates the systematic tracking and mapping of the knowledge landscape across a substantial corpus of literature, thereby elucidating trends, overlooked areas, as well as the trajectory of the research agenda and policy development that is more conducive to teacher well-being.

The following are the research questions in this study:

RQ1. How has the scientific production of WLB research in the teaching profession evolved between 2015 and 2025?

RQ2. Which sources, countries, and citation actors have most strongly shaped the intellectual development of teacher WLB research?

RQ3. What are the dominant themes and keyword clusters in teacher WLB studies, and how are they interconnected?

RQ4. What methodological tendencies dominate the field, and what gaps remain for future teacher-focused WLB research?

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Critical review of the literature

Work-life balance (WLB) is consistently understood as an important determinant of employee well-being, job satisfaction, and retention. However, the WLB literature has predominantly developed in the corporate and healthcare contexts, while studies specifically focusing on the teaching profession remain relatively limited, despite the fact that the nature of teaching work exhibits unique occupational dynamics. In practice, educators face long working hours, administrative pressures, and emotional demands, which easily spill over into their personal lives and trigger chronic stress, role overload, and burnout (Mukhopadhyay & Ghosh, 2025; Zhang & Dousin, 2025).

The distinctiveness of the teaching profession makes WLB an issue that is not solely individual but also tied to work structures and school institutions. Teachers' demands extend beyond teaching activities to include non-teaching tasks such as administration, extracurricular activities, program updates, and various additional duties that often do not directly relate to the core teaching mandate (Ibrahim et al., 2018; Tutlys et al., 2021). The accumulation of these demands causes many teachers to feel overburdened, experience stress, and struggle to balance teaching and non-teaching obligations. At some point, this imbalance impacts teachers' performance, the quality of the learning process, student outcomes, and exacerbates the issue of low teacher retention (Bezie et al., 2024; Rani & Venkatalakshmi, 2025; Štremfel & Veldin, 2025).

The complexity of WLB for teachers has increased in recent years due to the digitalization of education and changes in work modes, especially during COVID-19. The merging of work and home spaces during remote learning has blurred role boundaries, reinforcing the need for boundary management, while simultaneously increasing the risk of burnout, particularly in cognitively and emotionally intensive jobs like teaching (Fokkens-Bruinsma et al., 2024; Hsieh et al., 2022; Mouw et al., 2023).

From a knowledge map perspective, bibliometric findings show that research on WLB among teachers has strengthened around themes such as burnout, job satisfaction, stress

management, and teacher retention (Gnanarajan & Kengatharan, 2023; Zou et al., 2025). This pattern indicates a growing awareness that WLB is not merely a personal adjustment issue but a structural concern with consequences for teachers' performance, quality of life, and the stability of school institutions. Additionally, there remains a significant gap, such as the lack of studies in rural contexts and underrepresented educational environments, raising questions about the universality of theories and the need for cross-cultural adjustments (Akbar Jan et al., 2022; Mayya et al., 2021; Mulyani et al., 2021).

Conceptually, the thematic structure of the corpus also reveals three interconnected streams: 1) the stream of education and teaching practices, 2) the stream of teacher profession and pandemic workload, and 3) the stream of work psychology/mental health, highlighting burnout, role conflict, and work engagement. In other words, the literature positions teachers' WLB as a multidimensional phenomenon influenced by role demands, psychological resources, as well as organizational support and policies

Recent bibliometric studies on work-life balance (WLB) have made important contributions by mapping the general evolution of the field across sectors, including corporate employment, healthcare, public service, and other organizational settings. However, these studies mostly frame WLB as a broad cross-sector phenomenon and therefore tend to emphasize common constructs such as stress, job satisfaction, burnout, and organizational support without sufficiently unpacking occupation-specific conditions. In the context of education, this creates a clear gap because the teaching profession is shaped by distinctive institutional and relational demands, such as pedagogical responsibilities, administrative burden, emotional labor, student-facing interactions, and performance accountability, all of which may alter how WLB is experienced and studied. As also indicated in the present literature synthesis, WLB research in teaching has grown around themes such as burnout, job satisfaction, stress management, and teacher retention, yet bibliometric mapping that specifically captures the intellectual structure and thematic dynamics of teacher-focused WLB remains limited. This gap is even more visible in underrepresented educational contexts, including rural and resource-constrained settings, where the applicability of dominant WLB assumptions may differ. Therefore, a dedicated bibliometric analysis in the teaching profession is needed to move beyond generic cross-sector interpretations and provide a more context-sensitive knowledge map for educational research and policy.

Theoretical framework

The following two theoretical frameworks are the most relevant and complementary to each other.

a) Work–Family Border Theory

This theory is based on the assumption that individuals manage physical, temporal, and psychological boundaries between work and personal life (Soni & Bakhru, 2019). The more permeable these boundaries are, the higher the risk of cross-domain conflict. In the context of teachers, boundary permeability is evident when tasks such as lesson planning, assessments, and

student welfare concerns extend into evenings and weekends. This situation became even more extreme during the pandemic, when remote learning merged professional and domestic spaces, causing border collapse, which amplified strain and fatigue (Felder et al., 2015; Muhamad Nasharudin & Rui, 2024).

b) Role Balance Theory

This theory emphasizes that balance across multiple roles contributes positively to well-being, whereas role imbalance leads to strain and dissatisfaction. For teachers, professional demands often diminish the time and energy available for family or personal roles, which is reflected in the relationship between WLB and stress, burnout, and job satisfaction (Ayari, 2019; Bezie et al., 2024). Empirical evidence cited in the literature also shows that more flexible work arrangements can increase satisfaction through improved balance, while constant stress reduces satisfaction. This theory also opens the possibility that psychological factors, such as psychological resources, can mediate how individuals experience and manage role imbalance (Edeh et al., 2024; Zhang & Dousin, 2025; Zou et al., 2025).

c) Proposed Integrative Model

Based on the literature synthesis and bibliometric patterns, WLB for teachers can be formulated as the result of the interaction of three layers: 1) work demands such as workload, administrative pressure, emotional demands, and contextual shocks like pandemics; 2) cross-role linking mechanisms such as Work–Family Border permeability and Role Balance; and 3) buffering factors, both organizational and individual, including institutional support, work policies, and psychological resources. The implications suggest that when work-life boundaries become increasingly blurred and roles become more imbalanced, the risk of work-family conflict, stress, and emotional exhaustion/burnout increases, ultimately affecting job satisfaction and disturbing retention. The salience of keywords such as stress, burnout, job satisfaction, and teacher retention in the corpus reinforces the relevance of these two theories in the teaching context (Misfin et al., 2024; Zeng et al., 2024).

At the same time, the emergence of new themes related to well-being, institutional support, and policies indicates that the theoretical model should not only emphasize individual coping mechanisms but also be expanded to encompass systemic and organizational dimensions—particularly to address variations across contexts, such as rural and developing environments, which remain underexplored in the literature.

With this framework, the study of WLB for teachers can be understood not just as an issue of personal time management, but as a phenomenon that requires the structuring of work boundaries, role design, and institutional support in order to achieve sustainable balance that impacts educational quality.

METHODS

Bibliometric analysis is a systematic and precise quantitative approach used to search, map, and evaluate large amounts of scientific data. This approach is not only useful for identifying the emergence of new research areas within a discipline, but also allows researchers to examine the development patterns of the field in greater detail, including the dynamics of

themes, the influence of publications, and the evolution of knowledge. Through bibliometric analysis, researchers can gain a comprehensive view of the volume and quality of research in a specific area of study, such as by using indicators of productivity, citation impact, and the distribution of publications across sources and time. Furthermore, this analysis is often used to detect emerging trends in article and journal performance, map patterns of scientific collaboration, identify dominant research components, and reconstruct the intellectual framework of a field based on citation networks and co-word analysis in the available literature. In the context of work-life balance (WLB) studies, bibliometric analysis offers a comprehensive perspective on the development of WLB research while also highlighting areas that still require further exploration and future research agendas.

In this study, bibliometric analysis was conducted using VOSviewer and Biblioshiny in RStudio. Figure 1 represents the article selection flow for bibliometric analysis, starting from the initial number of identified records, the number of records eliminated based on established criteria, and ending with the final number of articles eligible for analysis. Data were exclusively extracted from Scopus on February 1, 2025. The selection of Scopus was based on its extensive coverage of peer-reviewed journals across disciplines, its relatively stringent indexing standards, and its adequate citation tracking support, ensuring the consistency of procedures and replicability of results. Although Web of Science and Google Scholar also include relevant studies, Scopus was prioritized due to its more standardized metadata availability and structured search features tailored for bibliometric needs

The literature search strategy was conducted using the query: TITLE-ABS-KEY ("work life balance" OR "work family balance" OR "work family conflict" "questionnaire" AND "teachers" OR "teaching profession" OR "educators") AND PUBYEAR > 2014 AND PUBYEAR < 2026 AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English")). The initial search yielded 297 results. The next step involved applying inclusion and exclusion criteria to filter the records into a methodologically valid corpus. Operationally, filtering included identifying duplicates, checking the thematic relevance to WLB and the teaching profession, and eliminating records that did not meet document requirements or metadata completeness, such as misindexed records or entries lacking adequate bibliographic information. With these selection procedures, the final corpus analyzed is expected to reflect the most relevant, consistent, and reliable literature for mapping the knowledge structure in this field of study.

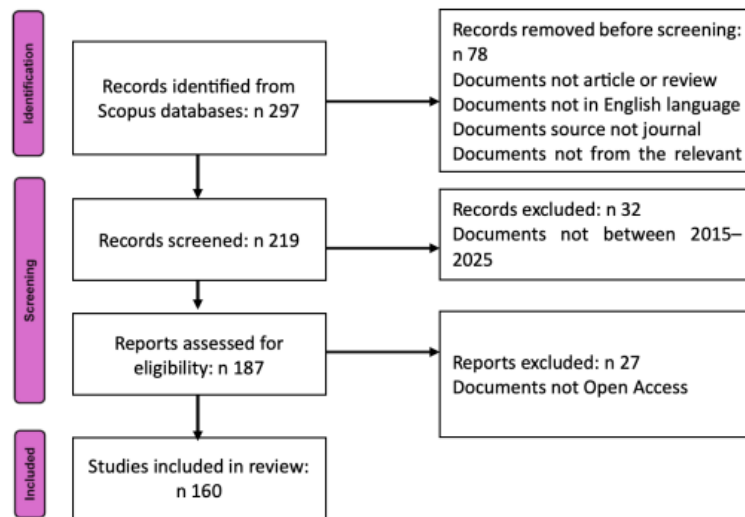


Figure 1. PRISMA flow Diagram

After applying these criteria, 160 publications were retained for analysis, as shown in Figure 1, the PRISMA flow diagram. The period from 2015 to 2025 was chosen to cover the most recent decade of research. This timeframe is highly relevant as it includes the growing scientific and policy interest in teacher well-being, as well as the post-2020 COVID-19 pandemic, which significantly intensified discussions on work-life balance (WLB) in education. This study exclusively relies on literature indexed in Scopus, which may exclude relevant studies from other databases such as Web of Science, Google Scholar, ERIC, or ProQuest. Additionally, the restriction to English-language publications may result in limited representation of research from non-English contexts. While these limitations narrow the dataset, they ensure the reliability, comparability, and replicability of the bibliometric analysis.

RESULTS AND DISCUSSION

Publications trends by year, source, countries, and authors

1. Publication trends by year

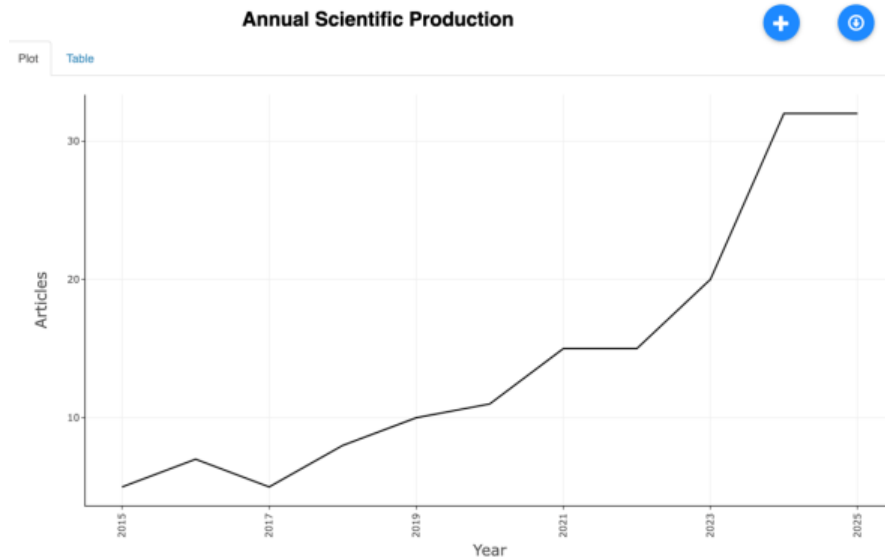


Figure 2. Annual Scientific production

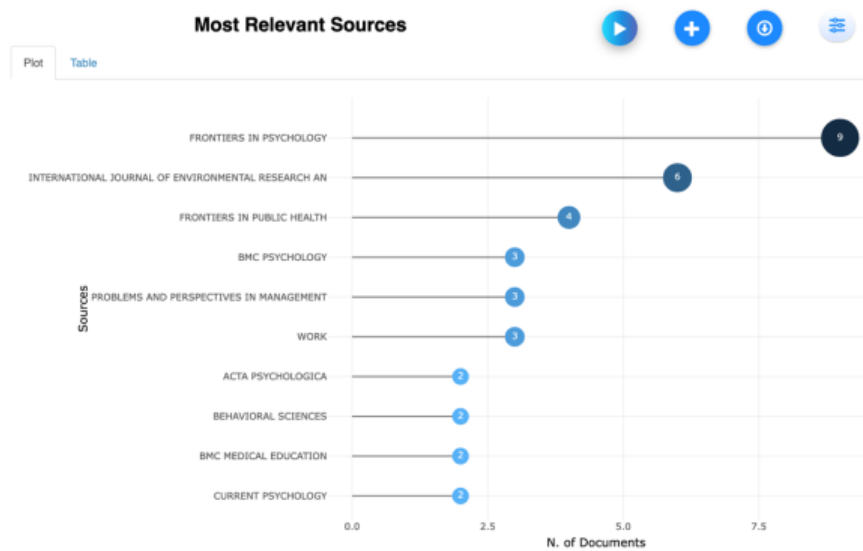


Figure 3. Most Relevan Source

The annual scientific production trend from 2015 to 2025 shows a transition from an early phase of relatively low and fluctuating output to a phase of increasingly strong growth. From 2015 to 2017, the number of publications remained at a limited level with minor variations, then gradually increased from 2018 to 2020, forming a more consistent upward pattern. The period from 2021 to 2022 saw a strengthening of output, followed by a tendency to stabilize at

a medium level. The sharpest increase occurred from 2023 to 2024, when productivity surged to high levels, and in 2025, the number of publications remained at the same level. This pattern indicates the strengthening and maturation of the research field, reflected in the increasing volume of publications, which then tended to stabilize.

Consistent with these findings, the distribution of publication sources shows a concentration of works in a few core outlets. *Frontiers in Psychology* is the most dominant source with nine documents, followed by *International Journal of Environmental Research and Public Health* with six documents, and *Frontiers in Public Health* with four documents. Medium contributions come from *BMC Psychology*, *Problems and Perspectives in Management*, and *Work*, with three documents in each journal. The next layer includes *Acta Psychologica*, *Behavioral Sciences*, *BMC Medical Education*, and *Current Psychology*, each with two documents. This configuration suggests that the development of the literature is primarily supported by psychology and public health channels, while also indicating interdisciplinary expansion into the fields of management, work, and education.

2. Publication trends by sources

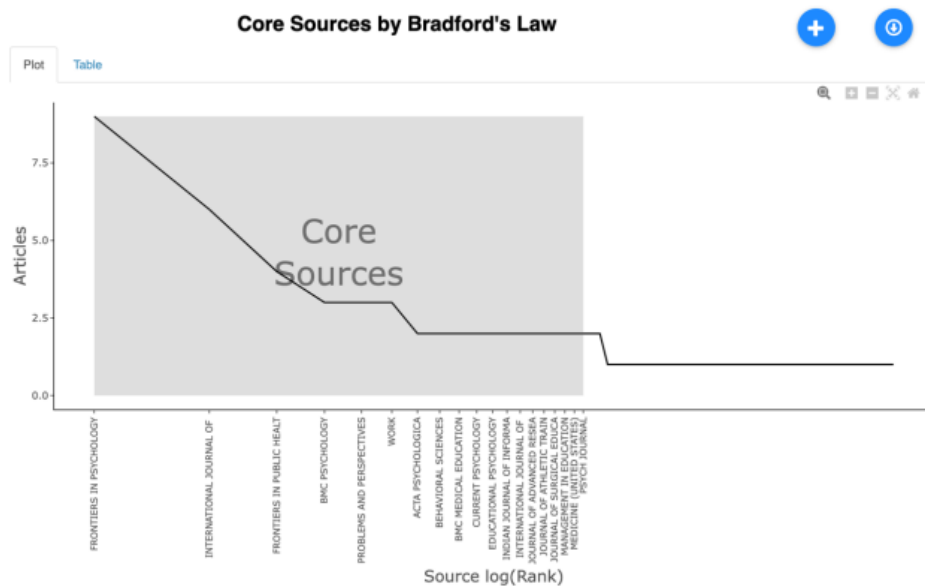


Figure 4. Bradford's Law

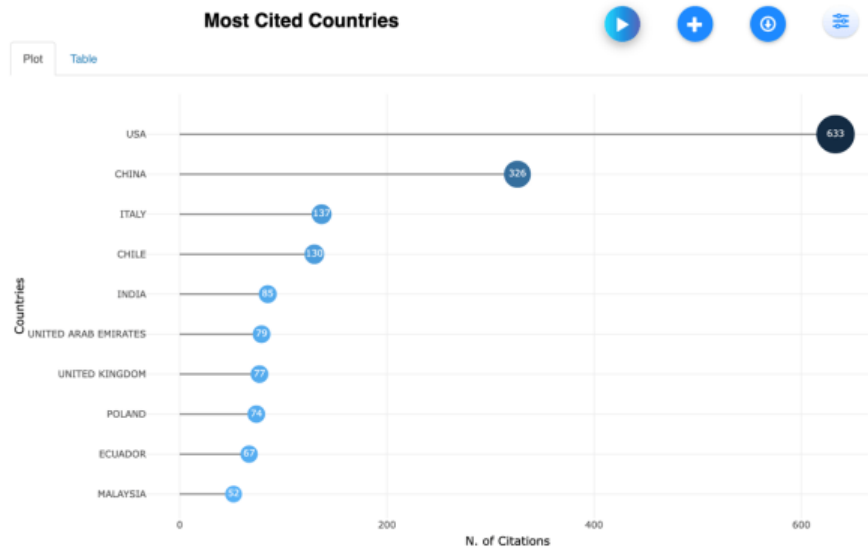


Figure 5. Most Cited Countries

From a country perspective, the most frequently cited articles come from the United States and China. Other countries also contribute, but their citation numbers are much smaller. This suggests that when researchers seek primary references or the most frequently used studies, they are often directed toward works from these two countries.

From a journal perspective, most articles are concentrated in a few core journals. These core journals serve as the primary venues for researchers to publish and access the latest developments, particularly those focused on psychology and public health. Other journals do exist, but their article numbers are smaller, and their role is more complementary, extending the topics into the fields of management, work, and education.

3. Publication trends by countries

| Country | Articles | Articles % | SCP | MCP | MCP % |
|----------------|----------|------------|-----|-----|-------|
| CHINA | 23 | 14.4 | 21 | 2 | 8.7 |
| USA | 18 | 11.3 | 15 | 3 | 16.7 |
| INDIA | 14 | 8.8 | 12 | 2 | 14.3 |
| MALAYSIA | 8 | 5.0 | 5 | 3 | 37.5 |
| UNITED KINGDOM | 6 | 3.8 | 5 | 1 | 16.7 |
| ITALY | 5 | 3.1 | 4 | 1 | 20.0 |
| CANADA | 3 | 1.9 | 1 | 2 | 66.7 |
| CHILE | 3 | 1.9 | 2 | 1 | 33.3 |
| ETHIOPIA | 3 | 1.9 | 2 | 1 | 33.3 |
| GERMANY | 3 | 1.9 | 3 | 0 | 0.0 |

Figure 6. Corresponding Author's Countries

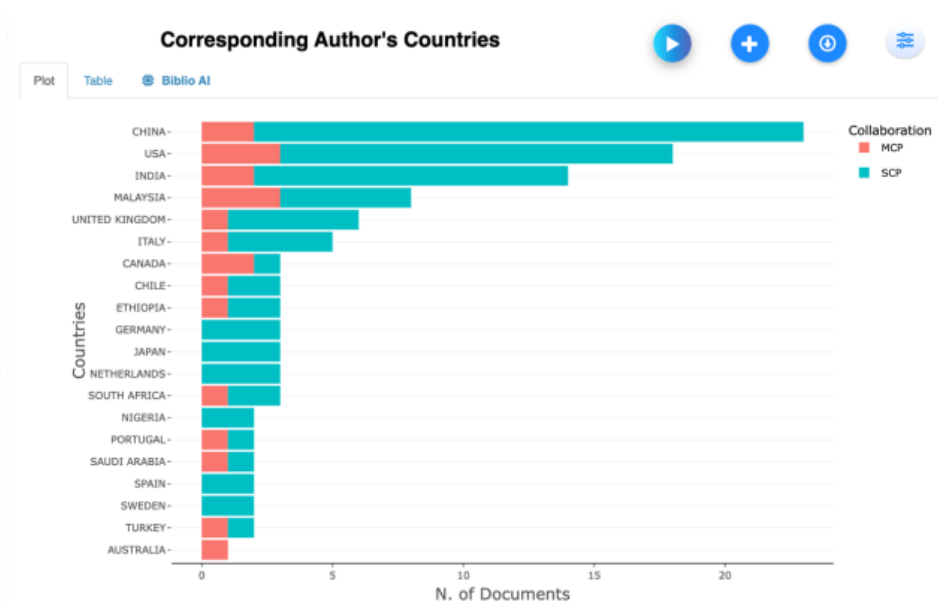


Figure 7. Corresponding Author’s Countries

Based on the Corresponding Author’s Countries graph, the countries of the corresponding authors indicate that publication contributions are concentrated in a few key countries. China ranks first with 23 articles, followed by the United States with 18 articles and India with 14 articles. Contributions then decline in the subsequent group of countries, with Malaysia contributing 8 articles, the United Kingdom with 6 articles, and Italy with 5 articles. Other countries such as Canada, Chile, Ethiopia, and Germany each contributed 3 articles. This pattern suggests that the leadership in publications on this topic primarily comes from countries with strong research capacities, while other countries play a supplementary role with smaller volumes.

The graph also distinguishes between single-country publications and cross-country collaborative publications. Single-country publications represent articles written by researchers from the same country, whereas collaborative publications involve researchers from more than one country. China, the United States, and India are dominated by single-country publications, meaning that most of their articles are primarily authored by domestic researchers. However, some countries with fewer articles actually have a higher proportion of international collaboration. Malaysia shows a relatively strong collaboration, as the collaborative portion is quite significant compared to its total publications, and Canada even has a very high proportion of collaboration. In contrast, Germany in this data tends to produce publications that are entirely from a single country. Overall, these findings suggest that countries with larger output serve as the main drivers of knowledge production, while countries with smaller output tend to expand their contributions through international collaboration networks.

4. Publication trends by authors

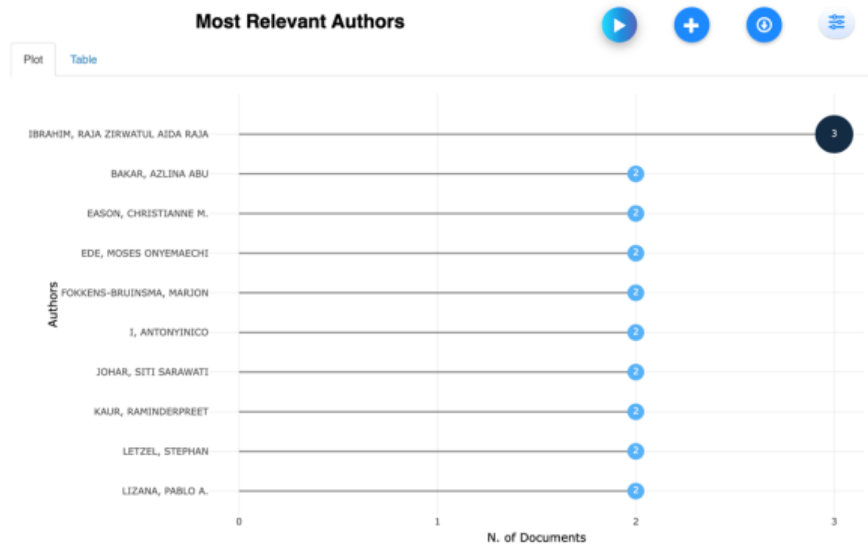


Figure 8. Most Relevant Authors

Based on the Most Relevant Authors graph, it is evident that publication productivity in this dataset is concentrated among a small number of authors. The author with the highest contribution is Ibrahim, Raja Zirwatul Aida Raja, with three documents, making her one of the key drivers of publications on this topic. Meanwhile, most other authors are at a similar productivity level, each having produced two documents. This group includes Bakar, Azlina Abu, Eason, Christianne M., Ede, Moses Onyemaechi, Fokkens-Bruinsma, Marjon, I, Antonynico, Johar, Siti Sarawati, Kaur, Raminderpreet, Letzel, Stephan, and Lizana, Pablo A.

In general, this pattern suggests that the literature on this topic is not dominated by a large number of prominent authors, but rather relies on a few active and consistent contributors. At the same time, the presence of many authors with a similar number of publications indicates that scientific contributions are distributed across various researchers, meaning the field's development is shaped by a relatively broad network of authors, but with not particularly high individual publication intensity.

5. ThreeField plot analysis

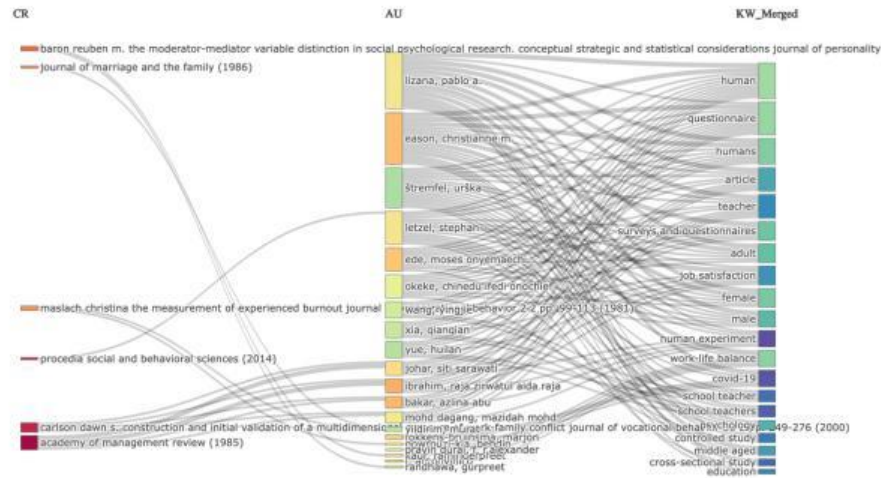


Figure 9. Threefield plot

Based on the three-field plot, this figure illustrates the relationship between three main elements in the literature: the most frequently cited references, the authors developing the research, and the keywords representing the research themes. The lines connecting the three elements indicate their interconnections, such that the more frequent and stronger the relationships, the clearer it becomes that a reference or theme serves as a central pivot used by many authors.

On the reference side, it is evident that the theoretical foundations and research methodologies heavily rely on classic and established sources. Baron and Kenny’s reference stands out as the foundation for analyzing variable relationships, particularly the mediation and moderation frameworks commonly used in social research. The reference to Maslach is also significant as it pertains to the measurement of burnout, which is often a key variable in studies of work well-being. Furthermore, Carlson and several key journals in the fields of management and work-family relations show that this research not only utilizes psychological perspectives but also draws from organizational studies and work-family relationship frameworks.

Regarding the authors and keywords, the dominant interconnections show that many authors are exploring relatively similar issues. The most frequently connected keywords are "teacher" and "school teachers," "work-life balance," "job satisfaction," and "COVID-19." This indicates that the primary research focus is on work-life balance in the teaching profession, job satisfaction, and the increased pressures during the pandemic. The emergence of keywords such as "surveys and questionnaires," "questionnaire," and "cross-sectional study" suggests that the most common research approaches are surveys and cross-sectional designs. Meanwhile,

centralization of the network on generic terms may inflate apparent centrality and obscure more meaningful thematic structures, so that the reading of clusters should emphasize substantive keywords surrounding these generic nodes.

The red cluster appears as the core of education and learning institution ecology, as work-life balance is strongly interwoven with education, teaching, curriculum, standards, and the expanded context of medical education, medical student, career decisions, and perceptions. This structure suggests that work-life balance is understood not only as a personal well-being issue but also as a variable interacting with curriculum design, teaching practices, and educators' experiences within the academic ecosystem. This cluster also shows a relatively wide network of relationships extending into themes such as skills, mentoring, and decision-making processes, conceptually positioning work-life balance as part of the dynamics of professional capacity-building and career trajectories, rather than merely a psychological outcome.

The green cluster centers on the teaching profession and workload context, marked by connections to teacher, school teacher, workload, stress, occupational health, and quality of life, with pandemic markers such as COVID-19 and pandemics strongly linked to the profession node. This pattern shows that work-life balance research in this corpus primarily addresses the concrete and layered demands of teachers' work, with the pandemic serving as an accelerator that strengthens the connections between workload, working conditions, and well-being. In this network, "teacher" functions as a context-specific node that channels work-life balance issues from the general domain to the profession domain, making the green cluster the thematic specialization arena most closely aligned with work practice realities.

The blue cluster forms the core of work psychology and mental health in the workplace, where burnout, emotional exhaustion, professional burnout, work engagement, workplace, and work-family conflict are strongly interconnected. The density of relations within this subnetwork indicates that work-life balance is often positioned as part of psychosocial mechanisms, specifically as a condition related to role conflict and subsequently manifesting in burnout, work engagement, and turnover intentions. In the theoretical framework, this pattern is consistent with how the literature models work-life balance as a phenomenon positioned between role demands, psychological resources, and workers' affective-cognitive responses, where burnout and work-family conflict nodes serve as conceptual causal bridges linking balance issues with well-being and work behavior outcomes.

Two smaller clusters serve as the infrastructure supporting the network. The yellow cluster consolidates terms related to work stress and family conflict dynamics, such as occupational stress, job stress, and family conflict, which tend to bridge the teaching profession and burnout clusters. Meanwhile, the purple cluster is closer to organizational and institutional contexts, including university, universities, faculty, and organization and management, indicating the presence of a literature layer that extends work-life balance issues into the governance of higher education institutions and workplace management. Structurally, these smaller clusters act as transitional corridors that allow ideas to flow across domains, from schools to universities, from education to organizations, and from workload to psychological outcomes.

3. Co-Occurrence density visualization of keywords

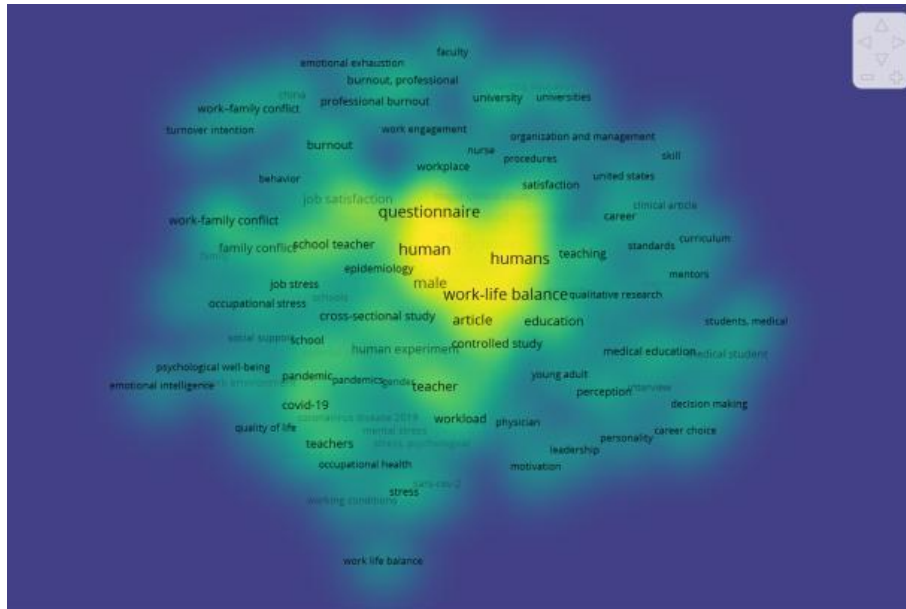


Figure 11. Co-Occurrence density visualization

Based on the density visualization in VOSviewer, this map shows the areas of keywords that appear most frequently and are strongly interconnected. Yellow indicates the highest density, while green to blue indicates decreasing density. In your data, the highest density center is located around the keyword "work-life balance," which is closely connected to "questionnaire," "human," and "humans." This suggests that research in the corpus is dominated by work-life balance studies and predominantly uses survey-based approaches as the main research method.

Surrounding this center is medium density, covering substantive themes such as "education," "teaching," "teacher," "school teacher," "job satisfaction," "burnout," "work-family conflict," "stress," "occupational stress," "workload," as well as pandemic-related keywords like "COVID-19" and "pandemic." This pattern indicates that the research focus primarily addresses work-life balance within the context of education, particularly the teaching profession, with an emphasis on work pressure, role conflict, work fatigue, and job satisfaction. Keywords that are further away and darker in color represent topics that are relatively less discussed, such as issues in organization and management or specific psychological themes.

Co-Citation analysis of authors

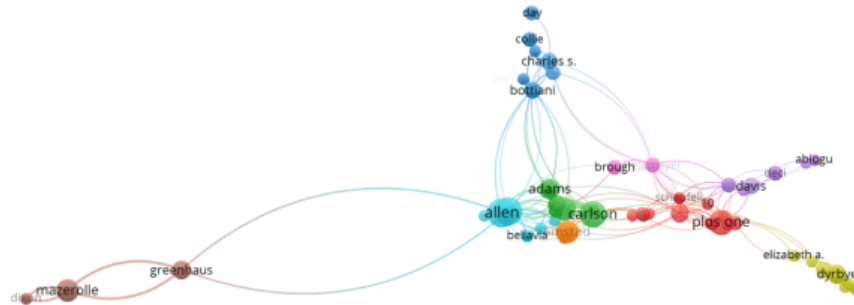


Figure 12. Co-Citation analysis of authors

Based on the author co-citation map in VOSviewer, this analysis shows which authors are most frequently cited together, thus illustrating who the core references are within the field of study. The network consists of 87 authors connected through 329 co-citation relationships, divided into 9 clusters. The size of the nodes represents the number of citations, while the lines indicate the strength of the connections, reflecting how often authors are cited together.

The map reveals a tight core cluster, indicating that several authors play a foundational role in the theoretical and methodological development of the field. Authors like Allen and Carlson appear near the center of the network, suggesting that they are key references connecting many studies. Surrounding them are other, more specific clusters, such as those related to work engagement and well-being, as well as clusters that focus on applied contexts like education and health. Overall, this pattern shows that the literature in your corpus is based on a few core authors, with further development into more specialized subthemes through additional reference groups.

Bibliographic coupling analysis of documents, and sources

1. Bibliographic coupling of documents

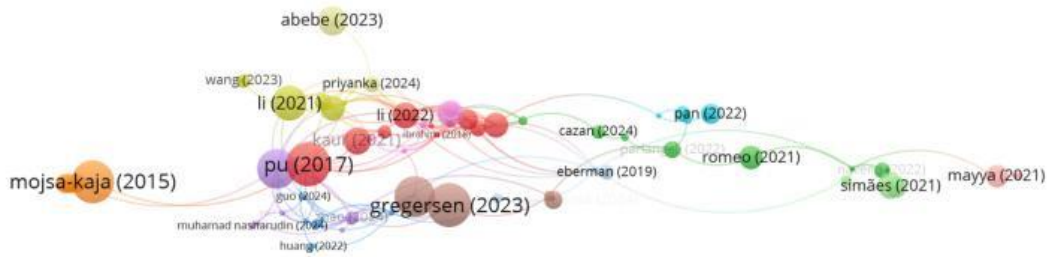


Figure 13. Bibliographic coupling of documents

Bibliographic coupling of documents explains the proximity between articles based on the similarity of their reference lists; that is, when two articles cite the same references, they are considered to have closely related literature foundations and research focuses. In this VOSviewer map, there are 75 documents divided into 13 clusters, with 160 relationships and a total link strength of 168. The size of the nodes represents the number of citations, while the lines indicate the strength of the connections due to sharing common references.

Overall, several documents play a significant role as anchors. Mojsa-Kaja 2015 stands out and is relatively isolated, indicating that this document is influential but shares references in a more limited manner with other documents. In the center, Pu 2017 is located near the center of the network and is connected to many documents, thus serving as a linking article with similar references across various studies. Additionally, many documents from the period 2021 to 2024 form a tightly connected group, indicating that recent studies tend to use similar reference bases, demonstrating a consolidation of research themes.

2. Bibliographic coupling of sources

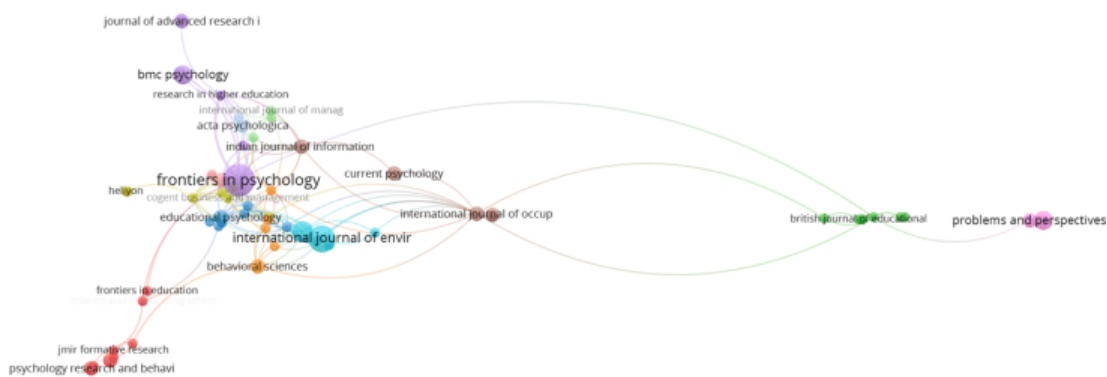


Figure 14. Bibliographic coupling of sources

The bibliographic coupling of sources map shows the proximity between journals based on the similarity of references used by their articles. In this diagram, there are 64 sources divided into 12 clusters, with 153 relationships and a total link strength of 168. The size of the nodes

represents the contribution or number of documents from that journal, while the lines indicate the strength of the connection between two journals sharing the same literature foundation.

The visualization results show that *Frontiers in Psychology* is the most prominent node, located at the center of the network, making it the primary linking journal with references similar to many other sources. Surrounding it are psychology, health, and education journals that are closely connected, indicating that the research corpus primarily relies on the literature foundations of psychology and education. Journals positioned further away and connected through long paths represent more peripheral sources, typically due to their more specific or distinct reference bases, such as those directed toward the management domain. Overall, this map reinforces that the central publication and reference sources in your study are concentrated in psychology and education journals, while connections to other fields, such as management, are more selective.

CONCLUSION

This study affirms that research on work-life balance (WLB) in teachers from 2015 to 2025 has evolved into a well-established and scientifically relevant field. Through a bibliometric analysis based on Scopus, with the assistance of VOSviewer and Biblioshiny in RStudio, this study selected 160 publications from an initial 297 records using the PRISMA selection flow, ensuring that the analyzed corpus is highly traceable and consistent at the metadata level.

The publication trend shows a clear acceleration of academic attention. In the early phase from 2015 to 2017, publications remained low and fluctuated, then gradually increased steadily from 2018 to 2020, reaching a peak in growth from 2023 to 2024 before stabilizing again in 2025. This pattern signals that the issue of teacher work-life balance is no longer seen as a peripheral topic but as a central issue directly related to work quality, psychological health, and the sustainability of the teaching profession in the context of changing educational demands.

In terms of knowledge production, the distribution of outlets and geographic contributions shows both concentration and expansion of the discipline. *Frontiers in Psychology* emerges as the dominant publication outlet, indicating that the work psychology and mental health approach has become the main stream for research on teacher work-life balance. Meanwhile, the geographical contribution is most prominent from China, the United States, and India. The collaboration pattern also suggests that productivity does not always align with international networking, as some countries with large output are more concentrated domestically, while others build influence through cross-country partnerships.

At the conceptual level, the structure of this field appears tightly interconnected. The keyword network shows 97 keywords forming 5 clusters with 2,927 relations and a total link strength of 12,029, indicating that the main themes interact intensely and form a cohesive ecosystem of issues. However, some central nodes are influenced by generic terms commonly used in indexing, so the interpretation of the most meaningful clusters should focus on the substantive terms surrounding them. Substantively, the dominant research focus revolves

around teacher work demands, work stress, work-family conflict, burnout, emotional exhaustion, and changes in work context accentuated by the COVID-19 period.

The intellectual structure of the field also shows a strong core of references. Co-citation analysis reveals tight core clusters with key reference figures such as Allen and Carlson, who serve as connectors across studies, allowing the teacher work-life balance literature to move on relatively stable theoretical and empirical foundations. Methodologically, the three-field plot mapping shows established references such as Baron and Kenny for variable relationship approaches and Maslach for the burnout construct, while research designs are still dominated by surveys and cross-sectional approaches. Consequently, the understanding formed is strong at the level of inter-variable relationships based on perception, but there is still ample room for longitudinal studies, mixed methods, and evaluations of policy and organizational interventions in schools.

This study has several methodological limitations. First, the dataset was retrieved exclusively from Scopus at one point in time (February 1, 2025), which supports metadata consistency and replicability but may limit coverage because relevant studies indexed in Web of Science, ERIC, ProQuest, Google Scholar, or delayed Scopus indexing are not captured. Second, the restriction to English-language publications may underrepresent teacher WLB research from non-English educational contexts.

Implicatively, these bibliometric findings point to the need for more applied and contextual agendas. The thematic map places workload issues, burnout prevention, psychosocial support, and adaptive resilience as recurring and strategic nodes, suggesting that strengthening school policies and educational policies that regulate workload, provide well-being support, and build a more supportive work environment is a logical recommendation. At the same time, organizational and management themes tend to be more peripheral, so future research should strengthen the connection between teacher work-life balance and work design, school leadership, governance, and human resource policies in education to ensure the contribution is not only descriptive but also capable of offering tested and sustainable solution frameworks.

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