

Social Capital and Community Learning Centers: A Systematic–Bibliometric Review

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Abstract: Community Learning Centers (CLCs), known in Indonesia as Pusat Kegiatan Belajar Masyarakat (PKBM), are increasingly recognized as strategic institutions for advancing lifelong learning, educational equity, and social inclusion. Beyond providing alternative learning opportunities, CLCs foster community participation, strengthen social capital, and support local empowerment across diverse socioeconomic settings. Nevertheless, the literature remains fragmented, predominantly context specific, and insufficiently synthesized at the global level. This study examines the evolution, intellectual structure, and thematic development of international CLC research through the lens of social capital. A hybrid systematic–bibliometric review was undertaken in accordance with PRISMA guidelines, and science mapping was conducted using VOSviewer. A systematic search of the Scopus database yielded 48 eligible peer-reviewed journal articles published between 2015 and 2025. The records were examined through co-occurrence, co-authorship, citation, and thematic-network analyses. The findings indicate a progressive shift from institution- and program-centered perspectives toward broader concerns with community empowerment, lifelong learning, social inclusion, educational resilience, collaborative governance, and sustainable development. Five major thematic clusters structure the field, while significant gaps remain in relation to digital transformation, institutional sustainability, measurable learning outcomes, and comparative cross-national research. By integrating systematic evidence synthesis with bibliometric mapping, this study provides a comprehensive account of the intellectual landscape of CLC scholarship, extends the application of social capital theory to community education, and identifies evidence-based priorities for future research, policy development, and inclusive lifelong learning systems.

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1. Introduction

Over the past two decades, education systems worldwide have shifted from predominantly institution-centered models toward more flexible, inclusive, and community-based forms of learning. This transition has been driven by persistent educational inequalities, demographic change, technological development, migration, and the growing recognition that learning extends beyond formal schooling across the life course (UNESCO Institute for Lifelong Learning [UIL], 2020). Within this context, Community Learning Centers (CLCs) have emerged as important institutional platforms for expanding educational opportunities, supporting lifelong

learning, and strengthening community resilience, particularly among socially and economically marginalized populations. In Indonesia, these institutions are known as Pusat Kegiatan Belajar Masyarakat (PKBM); internationally, they are generally situated within the broader category of Community Learning Centers.

Although the concept of the Community Learning Center is widely recognized, its institutional orientation varies substantially across regions. In many Global North settings, community-based adult education operates within established lifelong-learning, welfare, and local-governance systems and commonly emphasizes continuing education, digital participation, civic learning, and professional development (Boeren, 2019; Milana et al., 2018). By contrast, CLCs in the Global South often address more fundamental educational and developmental challenges, including literacy, equivalency education, livelihood development, women's empowerment, and the social inclusion of underserved groups (Belete et al., 2022; Le, 2018). These differences indicate that CLCs are not merely educational providers; they are adaptive forms of social infrastructure whose roles evolve in response to local socioeconomic conditions.

Recent international scholarship has increasingly positioned CLCs and other forms of adult learning and education as strategic mechanisms for advancing Sustainable Development Goal 4 while contributing to social inclusion, community empowerment, and sustainable development (Grotlüschen et al., 2024; UIL, 2020). Beyond delivering educational services, CLCs facilitate network formation, strengthen interpersonal trust, encourage civic participation, and support collaborative problem-solving. These functions are closely aligned with the concept of social capital, which emphasizes the value of social relationships, reciprocal norms, and collective action in improving individual and community well-being (Putnam, 2000). Social capital therefore provides a valuable theoretical lens for explaining why some community-learning initiatives achieve sustained outcomes whereas others remain institutionally fragile.

The COVID-19 pandemic further underscored the strategic importance of flexible and community-based learning arrangements. The disruption of formal provision and unequal access to digital technologies disproportionately affected disadvantaged populations, intensifying the need for locally embedded and inclusive learning opportunities (Stanistreet et al., 2020). Subsequent scholarship has increasingly connected adult and community learning with educational resilience, digital inclusion, collaborative governance, and social transformation (Belete et al., 2022; Benavot et al., 2022). This shift suggests that CLCs are increasingly understood as multidimensional institutions located at the intersection of education, social development, and public policy.

Despite the rapid expansion of this literature, CLC research remains conceptually fragmented. Some scholars approach CLCs primarily as instruments for implementing educational policy and widening access to lifelong learning (Boeren, 2019; UIL, 2020). Others emphasize their contribution to community development, local capacity building, and participatory governance (Belete et al., 2022; Le, 2018). A third strand highlights their role in fostering empowerment, social inclusion, and collective resilience through community participation and the formation of social capital (Rogers, 2019). Although each perspective offers important insights, these strands have largely developed in parallel, thereby limiting theoretical integration across disciplines.

The existing evidence base also presents methodological limitations. Most studies rely on case studies, program evaluations, or localized empirical analyses centered on particular institutions or national contexts. Although such work provides valuable contextual knowledge, it offers only a partial account of the wider intellectual development of CLC scholarship. Moreover, few studies have combined systematic literature review (SLR) procedures with bibliometric analysis to examine publication trends, collaboration networks, thematic evolution, citation structures, and emerging research fronts within a unified design (Donthu et al., 2021). Consequently, the global knowledge structure of CLC research particularly its relationship with social capital has not yet been adequately synthesized.

To address these limitations, the present study conducts a hybrid systematic–bibliometric review of international research on Community Learning Centers. Unlike reviews that focus primarily on summarizing empirical findings, this study integrates systematic evidence synthesis with bibliometric mapping to identify the

field's intellectual structure, dominant themes, collaboration patterns, citation relationships, and prospective research directions. Particular attention is devoted to how CLCs have been conceptualized as mechanisms for generating social capital and advancing inclusive community development across diverse institutional and national contexts.

This study makes three principal contributions. Theoretically, it extends the application of social capital theory within community-education research by synthesizing international evidence across multiple disciplinary traditions. Methodologically, it demonstrates the analytical value of combining PRISMA-based review procedures with bibliometric visualization to generate a more rigorous account of knowledge development. Practically, it provides evidence to inform policymakers, educational practitioners, and community organizations seeking to strengthen CLCs as sustainable institutions for lifelong learning, educational inclusion, and community empowerment.

Accordingly, the study addresses the following research questions:

1. How has global research on Community Learning Centers evolved over time?
2. What intellectual structures, thematic clusters, and collaboration networks characterize this field of research?
3. How has social capital been conceptualized within Community Learning Center research across different international contexts?
4. What emerging themes and future research directions can be identified from the current body of literature?

2. Literature Review

2.1 Community Learning Centers in the Global Lifelong Learning Agenda

The expansion of lifelong learning has transformed CLCs into important institutional mechanisms for promoting inclusive, equitable, and community-based education. Unlike conventional non-formal education institutions that primarily deliver discrete educational services, contemporary CLCs increasingly operate as community-learning ecosystems integrating literacy, vocational education, civic learning, digital literacy, health promotion, and local economic empowerment (Belete et al., 2022). They have consequently become important instruments for advancing Sustainable Development Goal 4 and its commitment to inclusive lifelong-learning opportunities (Grotlüschen et al., 2024; UIL, 2020).

International studies increasingly describe CLCs not only as educational institutions but also as community-development organizations capable of strengthening local governance, promoting social innovation, and enhancing community resilience. Belete et al. (2022) show that CLCs provide locally responsive spaces for adult learning and education while connecting community actors, practitioners, and public institutions. Similarly, Rogers (2019) argues that second-generation non-formal education can move beyond compensatory provision toward participatory and transformative approaches aligned with sustainable development.

This development reflects a broader paradigmatic shift in educational thought. Rather than treating education as an activity confined to formal schooling, contemporary lifelong-learning perspectives regard learning as a continuous process embedded in families, workplaces, community organizations, civic institutions, and higher-education partnerships (Boeren, 2019; Milana et al., 2018; Yang et al., 2015). CLCs therefore function as institutional bridges connecting formal education, non-formal provision, informal learning, and community development.

2.2 Community Learning Centers in the Global North and Global South

Although CLCs are internationally recognized educational institutions, their organizational characteristics and operational priorities differ substantially between the Global North and the Global South.

Across many Global North settings, community-based adult-learning institutions function as lifelong-learning hubs supporting continuing education, digital participation, active citizenship, and community innovation (Milana et al., 2018). They often collaborate with universities, public libraries, municipalities, museums, and nongovernmental organizations to strengthen civic engagement and knowledge-based local development.

Accordingly, scholarship from these contexts frequently emphasizes governance, learning ecosystems, digital inclusion, and lifelong-learning policy.

By contrast, CLCs in many Global South countries perform broader developmental functions because they operate in contexts marked by educational inequality, poverty, limited infrastructure, and social exclusion. Evidence from Asia and Africa shows that CLCs may combine literacy and equivalency education with vocational training, livelihood development, health education, and community empowerment (Belete et al., 2022; Le, 2018). Their multidimensional role positions them not only as educational providers but also as local-development institutions that can contribute to poverty reduction and social inclusion.

Despite these differences, comparative evidence consistently identifies a shared normative foundation based on community participation, local ownership, lifelong learning, educational equity, and collaborative governance. The distinction between CLCs in the Global North and those in the Global South therefore concerns operational emphasis more than underlying educational philosophy.

2.3 Social Capital as a Foundation for Community Learning

Among the available theoretical perspectives, social capital theory offers a particularly useful explanation of how CLCs contribute to sustainable educational and community development.

Classical accounts conceptualize social capital from complementary perspectives. Bourdieu (1986) defines it as resources embedded in durable social relationships that may reproduce both advantage and inequality. Coleman (1988) emphasizes its functional dimension, arguing that trust, shared norms, and reciprocal obligations facilitate coordinated action. Putnam (2000) extends this perspective by demonstrating how civic engagement, interpersonal trust, and dense social networks can strengthen democratic institutions and community development.

Within community-education research, these perspectives indicate that educational participation depends not only on institutional capacity but also on the quality of relationships among learners, educators, community leaders, local governments, and civil-society organizations. Adult learning can generate socioeconomic benefits through the networks, trust, and reciprocal relationships associated with social capital (Balatti & Falk, 2002). CLCs can therefore create learning environments in which knowledge is produced and exchanged through collective participation and locally embedded relationships (Belete et al., 2022).

Empirical and conceptual work further suggests that community-based adult learning can generate both bonding and bridging forms of social capital (Balatti & Falk, 2002). Bonding social capital reinforces solidarity within communities, whereas bridging social capital connects marginalized groups with government agencies, labor markets, educational opportunities, and wider social networks. Together, these dimensions may strengthen institutional sustainability, educational participation, and community resilience.

Nevertheless, scholarship has also challenged the overly normative use of social capital theory. Fine (2010) cautions against equating social capital automatically with positive outcomes because social networks may reproduce exclusion, unequal power relations, and institutional discrimination. Portes (1998) similarly notes that dense community ties can generate negative externalities, including social closure and restricted access for outsiders. Contemporary analysis should therefore treat social capital as a dynamic institutional resource whose effects depend on governance quality, inclusiveness, and equitable participation rather than on social cohesion alone.

2.4 Community Learning Centers, Social Inclusion, and Sustainable Development

A growing body of international scholarship situates CLCs within wider debates on social inclusion, sustainable development, and community resilience.

Rather than focusing exclusively on literacy or equivalency education, recent studies indicate that CLCs and related adult-learning institutions can contribute simultaneously to educational equity, economic empowerment, gender inclusion, digital participation, civic engagement, and sustainable development (Belete et al., 2022; Grotlüschen et al., 2024; UIL, 2020). Their cross-sectoral functions enable communities to address interconnected social challenges through integrated learning systems.

The COVID-19 pandemic reinforced the strategic importance of flexible and inclusive adult-learning systems. Stanistreet et al. (2020) demonstrate how the pandemic exposed and intensified existing educational inequalities, while Benavot et al. (2022) call for a renewed conception of adult education and lifelong learning capable of responding to social disruption and exclusion. These developments strengthened the case for community-based learning arrangements that combine local accessibility, institutional flexibility, and social support.

Yang et al. (2015) emphasize the contribution of partnerships among higher-education institutions, governments, and community organizations to the advancement of lifelong learning. Within the CLC context, such cross-sectoral relationships can support locally responsive provision, institutional sustainability, and community transformation (Belete et al., 2022). CLCs therefore increasingly operate not only as educational institutions but also as governance arrangements that support sustainable local development and resilient communities.

2.5 Intellectual Development of Community Learning Center Research

Over the past two decades, international CLC scholarship has moved beyond relatively narrow concerns with literacy and adult education toward broader interdisciplinary analyses informed by sociology, public policy, community development, governance, and sustainability studies.

Earlier studies concentrated primarily on literacy programs, adult basic education, non-formal provision, and institutional management (Le, 2018; Rogers, 2019). More recent scholarship has broadened the agenda to include educational resilience, social transformation, digital participation, sustainability, and the role of adult learning in achieving the Sustainable Development Goals (Benavot et al., 2022; Grotlüschen et al., 2024).

Despite this expansion, the literature remains theoretically fragmented. Some scholars conceptualize CLCs primarily as educational-policy instruments and components of lifelong-learning systems (Boeren, 2019; UIL, 2020), whereas others emphasize community development and local transformation (Belete et al., 2022; Le, 2018), cross-institutional partnerships (Yang et al., 2015), or the wider international field of adult and lifelong education (Milana et al., 2018). Although this diversity enriches the field, it also complicates efforts to develop an integrated explanation of how CLCs generate educational and social transformation across heterogeneous institutional contexts.

2.6 Research Position and Research Gap

Notwithstanding the expansion of international scholarship, several significant knowledge gaps remain.

First, the evidence base continues to be dominated by localized and country-specific studies, limiting understanding of the global intellectual structure of CLC research (Belete et al., 2022; Le, 2018). Second, although social capital has become an influential framework in adult and community education, relatively few studies integrate it systematically with CLC governance, lifelong learning, equivalency education, and global social inclusion (Balatti & Falk, 2002). Third, previous reviews have generally employed either systematic review or bibliometric analysis in isolation; hybrid designs capable of simultaneously synthesizing evidence and mapping intellectual structures remain comparatively uncommon (Donthu et al., 2021).

The present study responds to these gaps by conceptualizing CLCs as both educational infrastructures and generators of social capital. Through the integration of systematic review and bibliometric analysis, it maps the intellectual evolution of the field, identifies established and emerging themes, examines scholarly collaboration networks, and develops a future research agenda for community-based lifelong learning and social inclusion.

3. Research Method

3.1 Research Design

This study employed a hybrid systematic literature review (SLR) and bibliometric design to examine the intellectual development of global research on CLCs, social capital, and community-based lifelong learning. Integrating SLR and bibliometric techniques makes it possible to synthesize prior knowledge systematically while

visualizing the field's intellectual structure, thematic evolution, collaboration networks, and emerging research fronts (Aria & Cuccurullo, 2017; Donthu et al., 2021).

In contrast to a conventional narrative review, this hybrid design reduces researcher subjectivity through transparent selection procedures and quantitative science mapping. The systematic review component identifies, evaluates, and synthesizes relevant evidence, whereas bibliometric analysis maps publication trends, citation relationships, author collaboration, and keyword evolution. Combining the two approaches therefore provides a more comprehensive account of CLC research from both qualitative and quantitative perspectives (Donthu et al., 2021).

3.2 Data Source and Search Strategy

Bibliographic records were retrieved exclusively from Scopus, a major multidisciplinary citation database widely used in systematic and bibliometric research because of its broad coverage and standardized metadata.

The literature search was conducted in January 2026 using internationally recognized terms rather than country-specific terminology. The search string was informed by UNESCO terminology and previous international scholarship on community learning and lifelong education.

The following query was applied to the title, abstract, and keyword fields: TITLE-ABS-KEY ("community learning center*" OR "community learning centre*" OR "community-based learning" OR "community education") AND ("social capital" OR "lifelong learning" OR "equivalency education" OR "adult education"). Only peer-reviewed journal articles indexed in Scopus were retained to enhance the quality and international relevance of the evidence base.

3.3 Inclusion and Exclusion Criteria

Article selection was guided by explicit eligibility criteria adapted from the PRISMA 2020 statement (Page et al., 2021).

3.3.1 Inclusion Criteria

Studies were included when they met all of the following criteria:

1. Published in a peer-reviewed journal indexed in Scopus;
2. Written in English;
3. Published between 2015 and 2025;
4. Focused on Community Learning Centers, community education, lifelong learning, adult education, equivalency education, or social capital;
5. Reported empirical findings, systematic-review evidence, or theoretical analysis directly related to community-based education; and
6. Provided complete bibliographic metadata.

3.3.2 Exclusion Criteria

Studies were excluded when they:

1. They were conference proceedings, books, book chapters, editorials, notes, dissertations, or reports;
2. They were duplicate records;
3. The full text was unavailable;
4. They addressed formal schooling without a substantive connection to community learning;
5. They focused exclusively on technical educational issues unrelated to social capital or community learning; or
6. The bibliographic information was incomplete.

3.4 PRISMA Article-Selection Procedure

The screening process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) framework (Page et al., 2021). The identification stage yielded 742 records from Scopus. After 68 duplicates were removed, 674 records remained for title-and-abstract screening. This stage excluded 469 records because they addressed formal education, unrelated policy issues, or disciplines outside the scope of community learning. The remaining 205 articles were assessed in full text for eligibility.

During full-text assessment:

1. 61 articles were excluded because they did not contain a substantive discussion of Community Learning Centers;
2. 43 articles focused exclusively on formal schooling;
3. 28 articles were excluded because the full text was unavailable; and
4. 25 articles did not address social capital or lifelong learning.

The final sample comprised 48 articles that satisfied all eligibility criteria and were included in both the systematic review and the bibliometric analysis. This process enhanced methodological transparency, reproducibility, and consistency with international standards for evidence synthesis (Page et al., 2021).

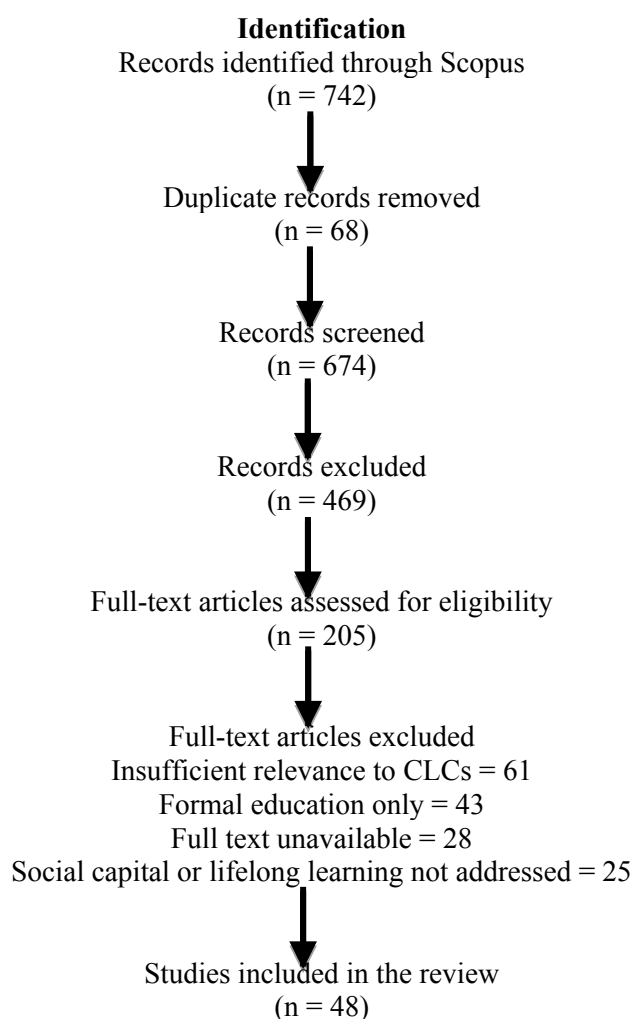


Figure 1. PRISMA 2020 flow diagram for the study-selection process.

3.5 Bibliometric Analysis

Bibliometric analysis was conducted using VOSviewer version 1.6.20 (van Eck & Waltman, 2023). The cleaned Scopus records were exported in CSV format and imported into VOSviewer for science mapping. Five complementary analyses were undertaken:

3.5.1 Publication-Trend Analysis

Annual publication output from 2015 to 2025 was examined to identify the developmental trajectory of the field.

3.5.2 Keyword Co-occurrence Analysis

Author keywords were analyzed using fractional counting. A minimum threshold of five occurrences was applied to identify dominant themes, after which network, overlay, and density visualizations were generated.

3.5.3 Co-authorship Analysis

Author-collaboration networks were examined to identify influential researchers, collaborative clusters, and patterns of international research partnership.

3.5.4 Citation Analysis

Citation mapping was used to identify influential publications, journals, and authors within CLC scholarship.

3.5.5 Thematic-Evolution Analysis

Overlay visualization was used to examine temporal changes in research topics and to identify emerging themes, including digital learning, community resilience, sustainability, and social innovation.

3.6 Data Synthesis

Following bibliometric mapping, a qualitative thematic synthesis was conducted across four analytical dimensions:

- Global publication trends;
- The intellectual structure of the field;
- Thematic evolution; and
- Future research directions.

The bibliometric results were interpreted in relation to social capital theory (Putnam, 2000), lifelong-learning scholarship (Boeren, 2019), and community-based non-formal education perspectives (Rogers, 2019) to explain the evolution of CLC research within the international literature.

3.7 Methodological Rigor

Several procedures were implemented to strengthen methodological rigor. First, the review followed the PRISMA 2020 reporting guidelines (Page et al., 2021). Second, the bibliometric procedures were aligned with the recommendations of Aria and Cuccurullo (2017) and Donthu et al. (2021). Third, the analysis was restricted to peer-reviewed, Scopus-indexed journal articles to enhance the quality of the evidence base. Finally, transparent reporting of the search strategy, eligibility criteria, screening process, and analytical techniques improves the reproducibility and reliability of the study.

4. Results and Discussion

4.1 Results

4.1.1 Global Publication Trends in Community Learning Center Research (2015–2025)

The bibliometric analysis indicates a substantial increase in international publications on CLCs between 2015 and 2025. This trajectory reflects growing scholarly interest in community-based lifelong learning as a component of inclusive education, social innovation, and sustainable development. The increase became particularly pronounced after 2020, when the COVID-19 pandemic intensified debate on educational resilience, flexible learning systems, and locally grounded responses to disruption.

The growth in publication output also indicates that CLC research has moved beyond its traditional focus on adult literacy and equivalency education. Recent studies increasingly examine digital learning, social innovation, community resilience, governance, and sustainable development. This development is consistent with UIL's (2020) view that locally grounded learning initiatives constitute strategic components of lifelong-learning systems rather than merely supplementary educational provision.

The publication trajectory therefore reflects a broader paradigmatic shift. Whereas earlier research emphasized institutional management and literacy programs, contemporary scholarship increasingly

conceptualizes CLCs as multidimensional organizations that can simultaneously strengthen educational participation, local governance, social inclusion, and community resilience (Belete et al., 2022; Rogers, 2019).

4.1.2 Intellectual Structure of Community Learning Center Research

Keyword co-occurrence analysis identified several thematic clusters that collectively constitute the intellectual structure of CLC scholarship. One cluster centers on community learning, lifelong learning, and adult education, confirming the enduring educational orientation of the field. A second cluster connects social capital, community participation, empowerment, and social inclusion, revealing growing attention to the wider social functions of CLCs. Other clusters foreground digital transformation, community resilience, sustainability, and innovation as emerging research fronts, particularly in the post-pandemic literature.

The configuration of these themes suggests that CLC research has moved from narrowly educational concerns toward interdisciplinary analysis integrating education, sociology, public policy, community development, and sustainability science. This trajectory is consistent with recent scholarship that reconnects adult learning and lifelong education with social transformation and the Sustainable Development Goals (Benavot et al., 2022; Grotlüschen et al., 2024).

In contrast to earlier approaches that treated CLCs primarily as administrative units, contemporary scholarship increasingly conceptualizes them as socially embedded learning ecosystems that generate knowledge, networks, and collaborative governance. CLCs thus appear simultaneously as educational institutions and as mechanisms through which social capital is produced and mobilized. Figure 2 presents the keyword co-occurrence network.

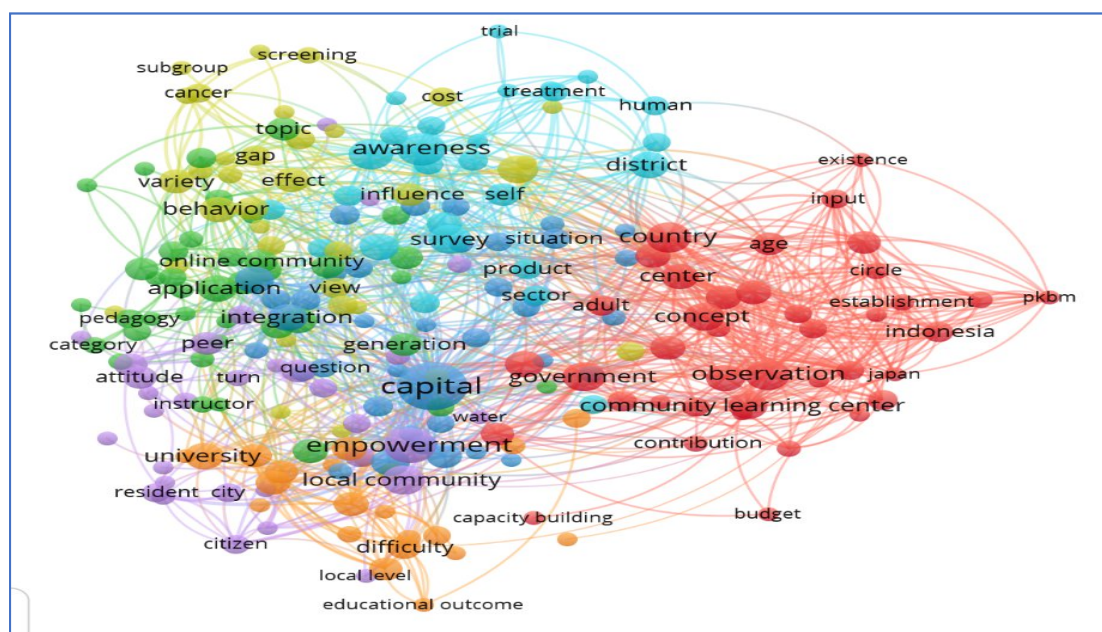


Figure 2. Keyword co-occurrence network for Community Learning Centers, social capital, and community education.

Figure 2 presents the co-occurrence network of author keywords generated in VOSviewer. Five major thematic clusters emerged from the mapping. The red cluster is dominated by lifelong learning and community education, while the green cluster emphasizes social capital and community participation. The blue cluster represents educational innovation and digital transformation, and the yellow cluster highlights sustainability and social inclusion. The proximity and interconnection of the clusters indicate that CLC research has developed into an interdisciplinary field spanning education, sociology, public policy, and community development (Donthu et al., 2021). Figure 3. presents the overlay visualization.

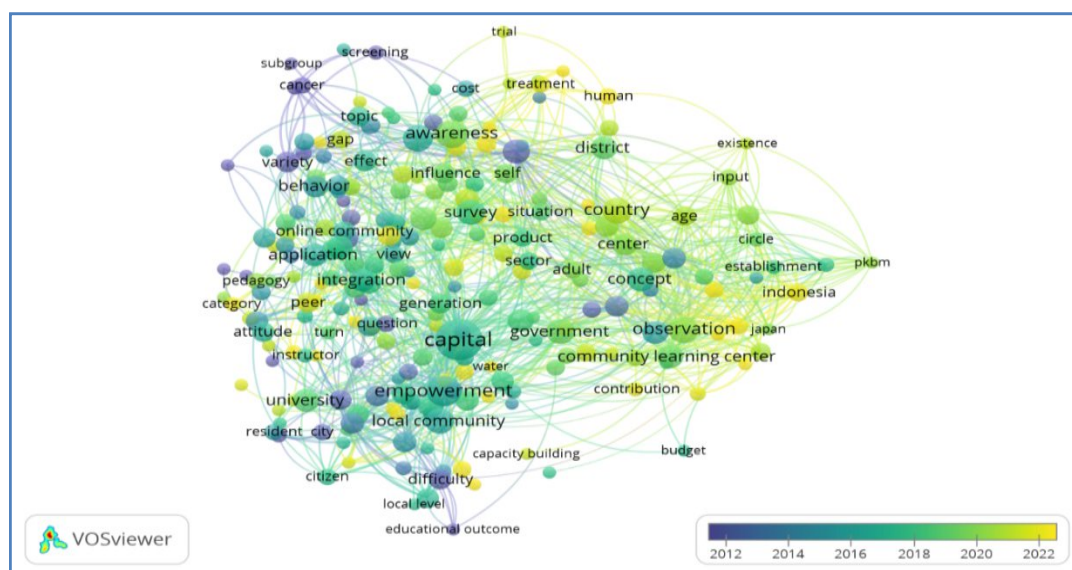


Figure 3. Overlay visualization of thematic evolution in Community Learning Center research.

Figure 3 illustrates the temporal evolution of CLC research. Earlier studies focused predominantly on literacy programs, adult education, and institutional management, whereas more recent publications increasingly address digital learning, sustainability, resilience, and social innovation. This transition demonstrates the expansion of the field from traditional educational provision toward the broader agenda of sustainable community development. Figure 4 presents the density visualization.

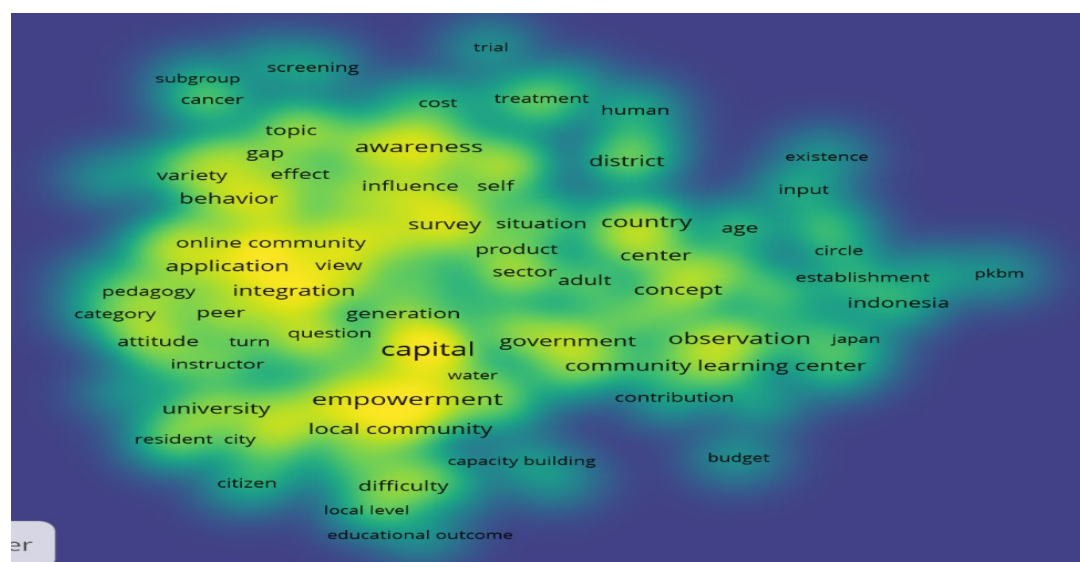


Figure 4. Density visualization of keywords in Community Learning Center research.

Figure 4 shows the density of keyword occurrence across the research landscape. Bright-yellow areas represent mature domains, including lifelong learning, community education, and social capital. Green and blue areas, by contrast, identify comparatively underdeveloped topics such as artificial intelligence, digital governance, educational resilience, and sustainability. These areas constitute promising directions for future interdisciplinary inquiry.

4.1.3 Collaboration Networks and Intellectual Influence

Co-authorship analysis indicates that CLC research remains geographically concentrated despite a gradual increase in international collaboration. Influential publications are predominantly associated with institutions in East Asia, Europe, and Australia, whereas networks involving scholars from Africa, Latin America, and Southeast Asia remain comparatively limited. This concentration points to an uneven geography of knowledge production and highlights the need for broader cross-regional research partnerships.

Citation analysis further shows that publications on lifelong learning, social capital, and community education occupy central positions within the intellectual network. Foundational contributions by Bourdieu (1986), Coleman (1988), and Putnam (2000), together with major international lifelong-learning policy documents (UIL, 2020), continue to shape contemporary CLC scholarship.

Taken together, these patterns suggest that international research increasingly combines sociological accounts of social capital with educational theories of lifelong learning, thereby broadening the analytical scope of CLC studies.

4.2 Discussion

4.2.1 Community Learning Centers as Generators of Social Capital

A central finding of this review is the changing conceptualization of CLCs as generators of social capital. Rather than functioning solely as educational service providers, they increasingly operate as institutional spaces that foster trust, reciprocal relationships, collective action, and collaborative governance among community members. These characteristics correspond closely to Putnam's (2000) conceptualization of social capital as networks, civic participation, and mutual trust that support community development.

The reviewed literature further indicates that CLCs can generate bonding social capital by strengthening solidarity within communities and bridging social capital by connecting marginalized populations with government agencies, higher-education institutions, labor markets, and civil-society organizations (Balatti & Falk, 2002; Belete et al., 2022).

At the same time, the findings support Fine's (2010) critique of uncritical and overly normative applications of social capital theory. Unequal participation, limited institutional capacity, and disparities in access to educational resources may constrain the effectiveness of CLCs. Sustainable community learning therefore depends not only on cohesion but also on inclusive governance, institutional accountability, and equitable participation.

4.2.2 Emerging Research Themes

The overlay visualization reveals a clear chronological transition in CLC scholarship. Before 2018, research focused mainly on literacy, adult education, program management, and educational participation. Between 2019 and 2021, community resilience, educational continuity, and digital learning became more prominent, partly in response to the COVID-19 pandemic.

Since 2022, international scholarship has increasingly emphasized digital transformation, sustainability, community innovation, learning cities, artificial intelligence, and resilience. These themes indicate that CLCs are being reconceptualized as adaptive institutions capable of responding to complex societal challenges that extend well beyond conventional educational provision.

The bibliometric evidence consequently points toward a more interdisciplinary future for CLC research, with increasing integration of educational technology, public policy, sustainability science, sociology, and digital governance.

4.2.3 Theoretical Implications

The findings extend existing theoretical understandings of CLCs. Whereas earlier studies frequently treated them as institutions for implementing educational policy, contemporary scholarship increasingly presents CLCs as socially embedded learning ecosystems that generate educational opportunities, social capital, collaborative governance, and community resilience.

This conceptual development implies that social capital should be viewed not merely as an outcome of CLC activity but also as an institutional mechanism through which lifelong learning contributes to sustainable community development. The review therefore positions CLCs at the intersection of four interdependent dimensions: lifelong learning, social capital, community empowerment, and social inclusion. This framework emphasizes that sustainable community learning emerges from the interaction of educational provision, social relationships, collaborative governance, and community participation rather than from educational programs alone.

5. Conclusion

This study examined the global development of CLC research through an integrated systematic review and bibliometric analysis. By synthesizing Scopus-indexed publications and mapping the field's intellectual structure through PRISMA-based procedures and VOSviewer, the review provides a comprehensive account of the evolution of CLC scholarship between 2015 and 2025. The results show a marked shift from traditional concerns with adult literacy and equivalency education toward lifelong learning, social inclusion, community empowerment, digital transformation, and sustainable development.

Social capital, community participation, lifelong learning, and empowerment emerged as major intellectual foundations of contemporary CLC research. Network, overlay, and density visualizations further indicate that the field has become increasingly interdisciplinary, drawing on education, sociology, public policy, community development, and sustainability studies. Growing attention to digital-learning ecosystems, community resilience, collaborative governance, and educational innovation reflects the transformation of CLCs from alternative educational providers into strategic institutions for inclusive and sustainable community development.

Theoretically, the review strengthens the connection between social capital theory and community-based lifelong learning. CLCs should be understood not simply as organizations that deliver educational services but as socially embedded learning ecosystems that generate trust, strengthen networks, facilitate collective action, and promote inclusion. This interpretation extends administrative and pedagogical accounts of CLCs by foregrounding their broader sociological role in producing social capital and enhancing community resilience.

Methodologically, the study demonstrates the value of combining systematic review and bibliometric analysis to investigate the development of scholarly knowledge. Integrating PRISMA procedures with science-mapping techniques provides a transparent, rigorous, and reproducible framework for identifying publication trends, intellectual structures, collaboration networks, and emerging themes. This approach generates insights that are difficult to obtain through a conventional narrative review alone and is transferable to other domains of educational and social research.

The findings also have practical implications. For policymakers, they underscore the strategic contribution of CLCs to lifelong learning and Sustainable Development Goal 4 through the expansion of equitable educational access, stronger community participation, and support for local development. For practitioners, the results highlight the need for collaborative governance involving governments, educational institutions, civil-society organizations, and local communities to sustain community-learning initiatives. Although the review adopts a global perspective, its conclusions are directly relevant to Indonesia's Pusat Kegiatan Belajar Masyarakat, which represents a nationally specific expression of the wider CLC model.

Several limitations should nevertheless be acknowledged. First, the analysis was restricted to Scopus and to English-language journal articles, potentially excluding relevant studies indexed elsewhere or published in other languages. Second, bibliometric mapping identifies patterns of scholarly production and intellectual association rather than the practical effectiveness of CLCs. Future research should therefore integrate multiple databases, compare Global North and Global South contexts, and examine emerging topics such as artificial intelligence, digital governance, learning cities, climate resilience, and community-based educational innovation. Longitudinal and mixed-methods designs would also provide a stronger basis for assessing how CLCs contribute to sustainable development across diverse sociocultural settings.

Overall, the evidence indicates that CLCs have evolved into strategic institutions situated at the intersection of lifelong learning, social capital, and sustainable development. Their increasing prominence reflects a broader recognition that educational transformation depends not only on formal systems but also on community-based learning ecosystems that strengthen social relationships, enable collaborative governance, and foster inclusive and resilient societies.

6. Recommendations

The bibliometric evidence identifies several priorities for future international research. First, comparative cross-national studies remain limited, particularly in relation to Africa, Southeast Asia, and Latin America. Second, the integration of artificial intelligence, digital governance, and smart community-learning systems within CLCs remains underexamined. Third, longitudinal designs are needed to investigate how CLCs contribute to resilience, social innovation, and sustainable local development over time. Finally, closer interdisciplinary collaboration among sociology, education, public policy, information science, and sustainability studies would strengthen the theoretical development of the field.

Future bibliometric research should draw on multiple international databases, including Web of Science, Dimensions, and Crossref, to broaden the coverage of CLC scholarship. Comparative studies across Global North and Global South contexts are needed to clarify how governance arrangements, social capital, and community-learning practices vary across institutional environments. Empirical and longitudinal studies should also investigate the contribution of CLCs to digital transformation, community resilience, and the achievement of Sustainable Development Goal 4. For policymakers and practitioners, sustained collaboration among governments, educational institutions, civil-society organizations, and local communities is essential to enhance the inclusiveness, institutional sustainability, and long-term impact of CLCs.

Data Availability

The bibliographic records analyzed in this study were retrieved from the Scopus database. The cleaned dataset and analytical files generated during the review are available from the corresponding author upon reasonable request, subject to Scopus licensing and access restrictions.

Declaration of the Use of Artificial Intelligence (AI)

During manuscript preparation, the authors used a generative artificial intelligence tool solely to improve English-language clarity, grammar, and readability. The authors subsequently reviewed and edited the entire manuscript and remain fully responsible for its scholarly content, analysis, interpretations, and conclusions.

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