

Integrating Higher Education And Non Formal Education : A Collaborative Model For Sustainable Community Development

1st Dwi Janur Wulan
Indonesia University Of Education
Bandung , Indonesia
dwijanurwulan@upi.edu

2nd Joni Rahmat Pramudia
Indonesia University Of Education
Bandung , Indonesia
jonirp@upi.edu

3rd Jajat S Ardiwinata
Indonesia University Of Education
City, Country
jsardipls@upi.edu

Abstract— The integration of higher education and non-formal education represents a strategic approach to advancing sustainable community development, particularly in expanding lifelong learning opportunities and strengthening community capacity. However, collaboration between these two sectors often remains fragmented, short-term, and insufficiently structured within an equitable and sustainable partnership framework. In response to this challenge, this study aims to examine and formulate a collaborative model that integrates higher education and non-formal education in support of sustainable community development.

This study employed a qualitative case study design conducted at a non-formal education institution, PKBM Ibum, located in Bandung Regency, Indonesia. Data were collected through in-depth interviews, participatory observation, and document analysis involving representatives from higher education institutions, non-formal education practitioners, and community members. The data were analyzed using thematic analysis to identify patterns of collaboration, implementation mechanisms, stakeholder roles, and contributions to social, educational, and economic sustainability.

The findings indicate that effective collaboration is characterized by dialogical partnerships, the integration of academic knowledge with local practices, and active community engagement throughout all stages of program implementation. The resulting collaborative model not only enhances community learning capacity but also strengthens social participation and the sustainability of local development initiatives. The novelty of this study lies in the development of an integrative collaborative model

that positions higher education and non-formal education as equal partners within a social learning ecosystem, contributing to the achievement of the Sustainable Development Goals.

Keywords— *Higher Education; Non-Formal Education; Collaborative Model; Sustainable Community Development; Lifelong Learning; Community Empowerment; SDGs.*

I. INTRODUCTION

Sustainable community development requires approaches that go beyond reliance on structural government interventions and emphasize the strengthening of community capacity through relevant and continuous educational processes. Education serves as a key pillar in fostering communities that are adaptive to social, economic, and environmental change. However, a persistent gap remains between higher education, which is largely academically oriented, and non-formal education, which is more closely aligned with the practical needs of communities. This disconnect has resulted in many academic innovations failing to be effectively transferred and utilized at the community level, while valuable local practices remain undocumented and insufficiently integrated into the broader development of knowledge.

Conversely, non-formal education maintains a close connection with the dynamics of community life. Institutions such as community learning centers (PKBM), study groups, creative communities, and civil society organizations are able to reach populations that are often underserved by formal education systems. The flexibility of learning methods, participatory approaches, and the capacity to adapt to local contexts position non-formal education as a strategic arena

for community empowerment. Nevertheless, non-formal education frequently encounters constraints related to limited resources, restricted access to up-to-date research, and the lack of systematic methodological support. Despite these challenges, non-formal education remains a crucial medium for fostering community empowerment and developing human resources that are responsive to local needs [1]. Similar perceptions of this gap are also reflected in other studies, which indicate that students and university learners tend to regard non-formal education as less valuable than formal education [2]. This condition highlights the need for stronger synergy between higher education institutions and non-formal education providers. Higher education can play a critical role by offering support in the form of research-based insights, curriculum development, and methodological frameworks that can be effectively implemented within non-formal education programs [3].

The integration of higher education and non-formal education creates opportunities for mutually reinforcing collaboration. Higher education institutions can contribute theoretical foundations, evidence-based research, and technological as well as social innovations that can be applied within community contexts [4]. Conversely, non-formal education can function as a social laboratory that enables students, lecturers, and researchers to examine the relevance and applicability of academic knowledge in real-world settings [5]. Such collaboration not only enhances the quality of learning within higher education institutions but also strengthens community capacity to address sustainable development challenges, including climate change, social inequality, and digital transformation [4].

Through an integrated collaborative model, community development can shift from a predominantly top-down approach toward a more participatory process rooted in local needs. In this framework, communities are no longer positioned merely as objects of development, but as active subjects who possess their own knowledge, experiences, and aspirations [6]. This perspective aligns with the objectives of the *Merdeka Belajar–Kampus Merdeka* (MBKM) policy, which promotes active engagement of the academic community and emphasizes the importance of community participation as an integral component of the learning process.

The collaborative model between higher education and non-formal education is highly relevant in responding to global challenges such as climate change, social inequality, and environmental issues. Research indicates that higher education institutions can transform through the adoption of digital technologies and innovative learning models, thereby producing graduates who are better equipped to engage with real-life conditions within society [7]. This view is consistent with findings from other studies highlighting the existence of learning initiatives that integrate education with diverse community elements across different contexts. One such

example can be found in Singapore's *SkillsFuture* programme, where a strong emphasis on community engagement has contributed to the development of a resilient and mutually supportive learning ecosystem [8].

When compared with international frameworks such as the Sendai Framework for Disaster Risk Reduction, a similar paradigm is evident in developing a systems-based approach. The Sendai Framework emphasizes the importance of a comprehensive understanding of risk, strengthening governance, investing in risk reduction, and enhancing preparedness through multi-stakeholder collaboration. This principle is relevant not only in the context of disasters but also in developing an education system that is adaptive and responsive to global risks, including climate change and social vulnerability [9].

In the Aceh context, the shift toward systems-based regulations that integrate the roles of local governments, universities, non-formal education institutions, and communities reflects alignment with these global commitments. Regulations that are no longer sectoral but integrated within a sustainable development framework demonstrate the adoption of the risk governance approach recommended by the Sendai Framework. Thus, collaboration between higher education and non-formal education in Aceh is not only a local strategy for building community capacity but also part of a policy transformation aligned with the global agenda for building sustainable social, environmental, and institutional resilience.

Accordingly, the integration of higher education and non-formal education represents a strategic approach to fostering an inclusive, relevant, and sustainable lifelong learning ecosystem. This collaborative model is expected to generate long-term impacts that not only enhance community quality of life but also strengthen social and environmental resilience.

This study aims to examine in depth the potential integration of higher education and non-formal education as a collaborative strategy for sustainable community development. The analysis seeks to bridge the gap between the academic sphere and community-based empowerment practices, with the objective of identifying collaborative models that are more relevant, adaptive, and capable of generating tangible impacts. Through a combination of conceptual analysis and empirical inquiry, this study is expected to provide a comprehensive understanding of how these two educational sectors can complement one another in fostering an inclusive learning ecosystem that is responsive to community needs. Specifically, the study focuses on identifying the strategic roles of each institution in community empowerment, analyzing effective and sustainable forms of collaboration, evaluating the challenges and opportunities arising from the integration process, and

proposing practical recommendations applicable to both local and national contexts.

II. METHOD

This study adopts a qualitative approach with a descriptive-analytical design to examine the integration of higher education and non-formal education within the context of sustainable community development. This approach was selected because the inquiry focuses on developing an in-depth understanding of the processes, interaction patterns, and collaborative practices among educational institutions as they unfold within real social settings.

In addition, this study adopts a participatory approach that positions community members, educators, and relevant stakeholders as key actors in the research process. This approach enables a more comprehensive exploration of experiences, perspectives, and collaborative practices as they develop contextually in response to the specific needs and characteristics of the community.

Informants were selected using purposive sampling, with consideration given to their level of involvement in the planning and implementation of collaborative programs. The study participants included representatives from higher education institutions, managers and facilitators of non-formal education, as well as community members who were actively engaged in the activities. To enrich the data, snowball sampling was applied in a limited manner to identify additional informants who held strategic roles within the collaboration.

Data were collected through in-depth interviews, field observations, and document analysis. To clarify the methodological dimensions for an international audience, the analysis of primary and secondary legal materials was systematically conducted through four stages. First, document identification and classification. Primary legal materials include laws and regulations, regional regulations, institutional policies, and operational guidelines related to educational collaboration and community development. Secondary legal materials include scientific articles, policy reports, academic papers, and evaluative studies. Documents were classified based on the hierarchy of norms, scope of authority, and their relevance to the integration of higher education and non-formal education. Second, qualitative content analysis included close reading to understand normative substance, open coding to identify key concepts (collaborative governance, participation, authority, sustainability, accountability), axial coding to form thematic categories, and selective coding to formulate relationship patterns and policy trends. Third, normative-contextual analysis, namely comparing written norms with field findings to identify conformity, regulatory gaps, and implementation dynamics. Fourth, triangulation and validation, by comparing document data, interviews, and observations and conducting

analytical reflection to maintain consistency of interpretation with the research's theoretical framework.

In the conclusion-drawing process, data analysis was conducted through iterative stages of data reduction, data presentation, and conclusion drawing. This process is not linear but rather occurs cyclically, continuously linking empirical data, legal documents, and the research conceptual framework. Final conclusions are formulated based on the consistency of findings across data sources and their relevance to the research objectives. With this approach, the research not only produces a collaborative description of the phenomenon but also provides a normative and contextual analysis that is systematic, transparent, and academically accountable in international forums.

TABLE I. CHARACTERISTICS OF RESEARCH INFORMANTS

Informants Code	Role	Institutional Affiliation	Justification for Selection
HE1	Academic Lecturer	Higher Education Institution	Actively involved in providing assistance and academic support for the collaborative program
HE2	Research Lecturer	Higher Education Institution	Possesses substantial experience in evaluating community-based educational programs
NFE1	Manager	Community Learning Center (PKBM)	Holds primary responsibility for the planning and management of the collaborative program
FAC1	Facilitator	Community Learning Center (PKBM)	Responsible for the implementation of community-based learning activities
CL1	Learner	Community	Direct recipient of the program benefits
CM1	Community Leader	Community	Provides support and possesses in-depth understanding of the local socio-cultural context

TABLE II. DATA COLLECTION TECHNIQUE AND DATA RESOURCES

Data Collection Technique	Data Sources	Data Focus
In-depth interviews	University lecturers, managers and facilitators of non-formal education, and community members	Collaborative processes, roles of key actors, program integration mechanisms, and perceptions of sustainability
Observation	Learning activities and community empowerment programs	Interaction patterns, levels of community participation, and on-site implementation of collaboration
Document analysis	Program documents, activity reports, learning modules, and institutional archives	Forms of program integration, activity planning, and consistency between conceptual frameworks and practical implementation

TABLE III. RESEARCH CATEGORIES AND ANALYTICAL FOCUS

Kategori	Fokus
Kolaborasi	Bentuk dan mekanisme kerja sama
Peran aktor	Kontribusi dan relasi antaraktor
Integrasi	Penyatuan teori dan praktik
Partisipasi	Keterlibatan masyarakat
Keberlanjutan	Dampak jangka panjang

III. RESULTS AND DISCUSSION

The findings of this study are presented based on five key components derived from field observations: the integration of academic knowledge and local practices, the roles and relationships among actors, community participation and empowerment, the strengthening of PKBM institutional capacity, and the challenges and sustainability of collaboration. These five components serve as the analytical framework for examining the dynamics of integration between higher education and non-formal education within the context of sustainable community development.

TABLE IV. ALIGNMENT OF OBSERVATIONAL DATA WITH RESEARCH FINDINGS

Data Source (Field Observation)	Key Findings
Observation of the learning process at PKBM Ibum	The integration of academic knowledge and local practices occurred in a contextual and adaptive manner
Observation of interactions among lecturers, students, and PKBM management	Collaborative relationships were characterized by equality and non-hierarchical engagement
Observation of learner participation	Community participation was active and oriented toward empowerment
Observation of program management and documentation program	Institutional capacity strengthening of PKBM was evident
Observation of the sustainability of collaborative activities	Structural challenges were identified in maintaining the sustainability of collaboration

The findings indicate that the integration between higher education and non-formal education—represented in this study by PKBM Nur Ibum in Bandung Regency, West Java—has been implemented in a contextual and adaptive manner. Field observations reveal that the academic knowledge introduced by lecturers and students was not applied rigidly; instead, it was adjusted to the needs, experiences, and backgrounds of the learners. Consequently, experiential learning approaches and reflective discussions emerged as the primary mechanisms for linking academic perspectives on community education with the realities of everyday community life. This finding is supported by previous studies suggesting that participatory action approaches are effective in reconstructing learning objectives based on community needs [10]. This approach can serve as a bridge between academic knowledge and the cultural context of the community, thereby

making the learning process more dynamic and responsive to the needs of communities surrounding the PKBM [11].

From the perspective of inter-actor relations, the observational findings indicate a relatively equitable partnership pattern between higher education institutions and non-formal education providers, specifically PKBM Ibum. PKBM managers and facilitators function as custodians of the local context and serve as key links between the program and the community, while lecturers and students assume roles as academic mentors and facilitators of reflective learning. This non-hierarchical relationship fosters open dialogue and contributes to the sustainability of the collaborative process.

Community participation emerged as a central finding of this study. Learners were not merely positioned as recipients of educational services but were actively involved in both the learning process and program development. Field observations of a women-led group consisting of 30 female participants—identified as the *Hero UMKM* women's group—revealed active engagement in initiatives focused on processing agricultural products harvested from the surrounding environment. The involvement of this group was evident across multiple stages, including activity planning, learning implementation, and program evaluation, indicating a gradual and sustained process of community empowerment among women heads of households.

Beyond individual-level impacts, the collaboration between PKBM and partner institutions such as higher education institutions also contributed significantly to strengthening PKBM's institutional capacity. Observations indicated improvements in organizational competencies, particularly in program planning, activity documentation, and the implementation of more systematic learning evaluations. Nevertheless, the study also identified several challenges, notably limitations in the duration of mentoring support, differences in institutional work rhythms, and the absence of an optimal long-term monitoring and evaluation system.

The findings of this study reinforce the view that integrating higher education and non-formal education constitutes an effective strategy for sustainable community development. The adaptive integration of academic knowledge and local practices demonstrates that community education cannot be separated from social contexts and the lived experiences of learners. This underscores the importance of contextual learning approaches in bridging the gap between academic theory and community empowerment practices. In this regard, non-formal education plays a crucial role in empowering communities—particularly women—through initiatives such as community-based learning centers established and managed by local actors. In the Indonesian context, non-formal programs such as those implemented at Gayatri Women's School in Jember have been shown to enhance women's skills and social status, demonstrating that such initiatives extend beyond learning activities to foster broader social change [12]. In addition, service-learning approaches within higher education have demonstrated significant potential in educating students about sustainability challenges while encouraging their active engagement with communities [13]. Similarly, other studies reveal that the

integration of formal and non-formal education contributes to the creation of holistic learning experiences. For example, the *Program Keluarga Harapan* in Yogyakarta not only provides financial assistance but also promotes shifts in community mindsets, supporting more comprehensive and sustainable empowerment processes [14]. Similarly, community-based learning activities, such as those examined at the Community Learning Center (PKBM) in Kediri, demonstrate that non-formal education can effectively facilitate the enhancement of community life capacities [15]. This finding further underscores the importance of contextual and responsive learning environments in improving the overall effectiveness of educational initiatives.

Lifelong Learning as a Framework for Formal and Non-Formal Education Collaboration

The concept of lifelong learning positions learning as a process that occurs throughout the life course and extends beyond the institutional boundaries of formal education. One of the key figures in the development of this perspective is Malcolm Knowles, who, through his theory of andragogy, emphasized that adult learners possess distinctive characteristics, including self-directed learning, the use of accumulated life experiences as primary learning resources, a problem-centered orientation, and a strong need for learning that is relevant to their life contexts. From Knowles' perspective, formal, non-formal, and informal education are not arranged hierarchically but are instead understood as integral components of a unified lifelong learning system.

Based on this perspective, collaboration between formal and non-formal education becomes a crucial prerequisite for supporting sustainable learning within communities. Formal education plays a strategic role in providing theoretical foundations, academic structures, and scholarly legitimacy, while non-formal education functions as a flexible and contextual learning space that is closely connected to social realities. The integration of these two educational forms enables learning processes that extend beyond the attainment of certification, continuing through capacity building, experiential reflection, and community empowerment.

Functional Partnership Model (Knowles and Jarvis)

The findings of this study indicate that collaboration between formal and non-formal education can be understood through a functional partnership framework, in which each institution performs distinct yet complementary roles in supporting lifelong learning. This collaborative pattern aligns with the principles of lifelong learning, which conceptualize learning as a continuous process that occurs across multiple contexts and does not conclude with the completion of formal education.

From the perspective of Malcolm Knowles, adult learning is inherently self-directed and strongly shaped by learners' life experiences and practical needs. Consequently, the sustainability of learning processes requires a clear division of roles among educational institutions. Formal education provides academic foundations, conceptual frameworks, and institutional legitimacy through certification, while non-formal education extends and sustains learning through more

flexible, contextual, and problem-oriented approaches that address everyday life challenges.

This perspective is further reinforced by Peter Jarvis's view of society as a *learning society*, in which both formal and non-formal educational institutions perform distinct yet complementary functions in shaping a learning ecosystem [16]. Within a learning society, education is not monopolized by formal institutions but emerges through dynamic interactions across diverse learning spaces that respond to individuals' needs at different stages of life. Such a framework enables meaningful interaction between formal and non-formal education in addressing everyday challenges. Community involvement—both in the design of educational programs and in learning processes—creates conditions for individuals to share experiences and knowledge. For instance, community development programs that actively engage local participants in designing and implementing training activities have been shown to enhance the relevance of learning content [17].

Contextual Integration Model (Paulo Freire)

The **Contextual Integration Model** conceptualizes collaboration between formal and non-formal education as a dialogical process that bridges theory and practice within the lived realities of communities. This model is grounded in the view that academic knowledge cannot be effectively applied without contextualization, while local practices require reflective frameworks to attain educational meaning and sustainability. Accordingly, the integration of these two educational pathways becomes a crucial mechanism for fostering learning that is both relevant and transformative.

Aligned with perspectives that frame society as a *learning society*, this model emphasizes that education should address the needs of individuals across different life stages while fostering interactive learning environments [18]. Within this framework, formal education functions as an academic foundation by providing learners with theoretical knowledge and conceptual frameworks necessary to navigate life's challenges. Through certification processes, formal education also confers institutional legitimacy that enables participation in professional and societal contexts [18].

In this context, formal education emphasizes consistency and systematic learning methods that are primarily oriented toward theoretical foundations [19]. In contrast, non-formal education extends the learning processes established by formal education through more flexible and needs-based approaches. Non-formal education is specifically designed to address the educational needs of communities that are often underserved by formal systems. Learning activities in this setting are frequently contextual and grounded in learners' lived experiences, thereby creating learning experiences that are more relevant and applicable to real-life situations [20]. Such approaches not only enhance learners' engagement but also provide opportunities for participants to apply acquired knowledge within authentic life contexts [21].

This contextual model closely parallels the sustainability-oriented perspective when viewed through the lens of lifelong

learning as articulated by Knowles. The Continuum Learning Model conceptualizes formal and non-formal education as two interconnected learning pathways within a single lifelong learning trajectory. In this model, both forms of education are not positioned as separate or hierarchical systems; rather, they are understood as interdependent and complementary components of a continuous learning system that responds to the evolving needs of individuals and communities across different life stages. Formal education provides foundational academic knowledge and cognitive frameworks, while non-formal education enriches the learning process by developing practical skills and experiences that are directly relevant to everyday life [22].

From this perspective, the concept of lifelong learning aligns closely with the principles proposed by Malcolm Knowles, who emphasized that learning is a continuous and adaptive process shaped by social change and the challenges individuals encounter throughout their lives [16]. Within the Continuum Learning Model, various forms of collaboration can be implemented, including skills training programs, parenting and health education initiatives, and community health programs [23]. Such programs often contribute to broader social and economic improvements within communities, as evidenced by studies highlighting the role of skills development and women's empowerment in enhancing community well-being [24].

Model of Participatory Collaboration (Paulo Freire)

The **participatory collaboration model** positions the community as the primary subject of the educational process, while formal and non-formal education function as facilitators of learning and empowerment. Within this framework, collaborative initiatives aim to empower individuals and communities by strengthening their capacity to engage actively in educational processes and to address the social challenges they encounter [25]. Through structured and standardized learning processes, formal education provides the legitimacy and accreditation required for participation in professional and societal contexts. However, within a collaborative setting, the role of formal education extends beyond institutional instruction to supporting and reinforcing learning processes that occur outside formal schooling environments [26]. This involves the development of programs and initiatives that connect theoretical knowledge with practical applications that are meaningful within the social and cultural contexts of the community.

Within the **participatory collaboration model**, non-formal education is often grounded in experiential and participatory approaches, facilitating skills training, community development, and the dissemination of contextually relevant knowledge. For instance, programs designed to address social issues such as entrepreneurship training or skills development initiatives for women enable individuals to learn through direct experience while simultaneously engaging in empowerment processes [3]. A growing body of research demonstrates that educational approaches involving community members in decision-making and program implementation tend to produce deeper and more meaningful impacts. For example, the application of

participatory methods such as photovoice in training programs for older adults in Hong Kong illustrates how participatory approaches can enhance civic awareness and strengthen community engagement [27]. Such approaches also support individuals in articulating their perspectives and lived experiences, thereby creating inclusive spaces for dialogue within communities.

The effectiveness of the participatory collaboration model is largely determined by the extent to which communities are involved in educational decision-making and planning processes. Research findings indicate that the integration of non-formal education with community empowerment strategies can enhance individuals' economic self-reliance, particularly within the context of micro, small, and medium enterprises [14]. By leveraging the complementary strengths of formal and non-formal education, this model generates learning experiences that are more relevant and inclusive. Learning processes grounded in real-life experiences and community dialogue further strengthen individuals' capacity to contribute to addressing the social challenges they encounter. Therefore, it is essential for educational institutions to support and facilitate participatory learning approaches in order to promote sustainability and community well-being.

Institutional Capacity Building Model (Peter Morgan, David Corten)

The primary focus of this model is the strengthening of organizational capacity within non-formal education institutions, based on the understanding that the impact of community education cannot rely solely on individual capacities but must be supported by robust, adaptive, and autonomous institutional structures over the long term. The sustainability of educational initiatives is largely determined by an institution's ability to manage resources effectively, perform organizational functions, and adapt to changing contextual conditions.

Within the educational context, institutional strengthening can be pursued through a set of planned and systematic approaches. Capacity development extends beyond the enhancement of individual skills to include the reinforcement of organizational structures, governance systems, and evaluation mechanisms within non-formal education institutions. Institutional strengthening in this sense encompasses improvements in managerial capacity, the development of systematic evaluation frameworks, and the provision of sustained academic mentoring. Through such measures, non-formal education institutions are better positioned to maintain program continuity, ensure quality learning processes, and support long-term community empowerment.

Community-Based Learning Ecosystem Model (Bronfenbrenner)

The **learning ecosystem model** conceptualizes collaboration between formal and non-formal education as part of a broader and interconnected learning system that involves multiple actors and institutions within society. This model emphasizes that learning processes do not occur in isolation within a single institution, but rather emerge through

dynamic interactions among individuals, educational institutions, communities, government actors, and the surrounding socio-economic environment.

Within the context of community education, collaboration between formal and non-formal education serves as a bridge connecting theory and practice. **Etienne Wenger**'s perspective on *communities of practice* provides a robust framework for understanding how individuals and groups learn collectively through active participation and the sharing of experiences [28]. In educational settings, this perspective creates spaces in which knowledge is not merely transmitted, but collectively constructed through sustained interaction. The learning content developed within communities of practice encompasses not only theoretical knowledge but also everyday practices that are directly relevant to participants' lived experiences.

Meanwhile, **Urie Bronfenbrenner**'s ecological systems theory strengthens the understanding that learning is not isolated from interactions across multiple systems, ranging from the individual level to broader social and institutional contexts [29]. This perspective highlights that learning outcomes are shaped by the dynamic interplay between individuals and their surrounding environments. Within the context of community education, the presence of communities of practice contributes to the reinforcement of context-based learning. For example, skills training programs that involve educators from formal education alongside practitioners from non-formal community settings enable participants to integrate theoretical and practical knowledge in ways that are responsive to local needs. Through such collaborative arrangements, individuals are able to enrich their learning experiences and apply knowledge more meaningfully within their everyday contexts [30].

From Bronfenbrenner's perspective, ecological systems theory emphasizes the importance of multiple interconnected layers in influencing individual learning processes. These systems include the microsystem, mesosystem, exosystem, and macrosystem, each of which interacts with and reinforces the others in shaping the social environment surrounding learning activities [31]. Together, these interacting systems create a comprehensive ecological framework that supports learning as a socially embedded and contextually influenced process. Formal and non-formal education can be understood as components of the **mesosystem**, where interactions between the two create a more inclusive learning environment. Formal education provides foundational knowledge and structured learning frameworks, while non-formal education offers the flexibility and contextual relevance often required by communities. The integration of these educational forms enables more meaningful collaboration in shaping environments that support continuous and sustained learning [10].

By combining principles from *communities of practice* and ecological systems theory, a more holistic understanding of learning emerges. Through interactions within communities of practice, individuals not only acquire new knowledge but also develop social networks that support their ongoing learning processes. Ecological systems theory further

emphasizes that the environments surrounding individuals—including families, educational institutions, and communities—must function in a coordinated and harmonious manner to optimize learning processes and promote community empowerment.

TABLE V. SUMMARY OF FIVE COLLABORATIVE MODELS APPLICABLE TO FORMAL AND NON-FORMAL EDUCATION

Collaborative Model	Primary Focus	Key Scholars / Theoretical Foundations
Functional Partnership	Division of roles and responsibilities	Knowles, Jarvis
Contextual Integration	Integration of theory and practice	Freire, Kolb
Participatory Collaboration	Empowerment-oriented collaboration	Freire, Hall, Walters
Institutional Capacity Building	Sustainability and institutional strengthening	Morgan, Korten
Learning Ecosystem	Collaborative and systemic learning environment	Wenger, Bronfenbrenner, UNESCO

Challenges and Recommendations for Collaborative Models Between Higher Education Institutions and Non-Formal Organizations in Promoting Sustainable Community Development

To identify the most appropriate collaboration model for strengthening community capacity in support of sustainable community development, this study applies a SWOT analysis to each proposed collaboration model. Through this analytical approach, the study is able to systematically assess the internal and external conditions of each model and subsequently formulate informed recommendations regarding the most suitable educational collaboration model for implementation by both institutions.

TABLE VI. FUNCTIONAL PARTNERSHIP MODEL

Aspect	Analysis
Strengths	Clearly defined roles, ease of implementation, and alignment with higher education institutional structures
Weaknesses	Tends to be top-down in nature, with limited community participation
Opportunities	Well-suited for community service programs and the <i>Merdeka Belajar–Kampus Merdeka</i> (MBKM) initiative
Threats	Limited long-term impact in the absence of local capacity strengthening

TABLE VII. CONTEXTUAL INTEGRATION MODEL

Aspect	Analysis
Strengths	Effectively bridges academic knowledge with social realities
Weaknesses	Highly dependent on the reflective capacity of lectures and students
Opportunities	Highly compatible with experiential learning approaches
Threats	Risk of remaining at the level of reflection without institutionalization

TABLE VIII. PARTICIPATORY COLLABORATION MODEL

Aspect	Analysis
Strengths	Enhances community ownership of programs
Weaknesses	Time-consuming processes requiring prolonged facilitation
Opportunities	Communities are prepared to act as active agents of development
Threats	Risk of dependency on facilitators when institutional capacity is weak

TABLE IX. INSTITUTIONAL CAPACITY BUILDING MODEL

Aspect	Analysis
Strengths	Generates long-term impact and strengthens PKBM governance
Weaknesses	Outcomes are not immediate and may be perceived as less “programmatically attractive”
Opportunities	PKBM requires strengthened management and evaluation capacities
Threats	May be constrained when higher education institutions adopt a project-oriented approach

TABLE X. LEARNING ECOSYSTEM MODEL

Aspect	Analysis
Strengths	Integrative, multi-actor, and sustainability-oriented
Weaknesses	Complex in nature, requiring high levels of coordination and commitment
Opportunities	Supported by policy frameworks such as the SDGs, MBKM, and lifelong learning initiatives
Threats	Risk of failure one or more actors demonstrate inconsistency

TABLE XI. COMPARATIVE ANALYSIS: COLLABORATIVE MODELS AND IMPLEMENTATION FEASIBILITY

Model	Implementation Feasibility	Sustainability	Remarks
Functional Partnership	☆☆☆☆	☆☆	Suitable for initial stages of implementation
Contextual Integration	☆☆☆	☆☆	Strong pedagogical value
Participatory Collaboration	☆☆☆	☆☆☆	Requires extended timeframes
Institutional Capacity Building	☆☆☆	☆☆☆☆	Provides a long-term foundational framework
Learning Ecosystem	☆☆	☆☆☆☆☆	Represents an ideal collaborative model

Based on a SWOT analysis of five collaboration models, this study concludes that the institutional strengthening model is the most appropriate approach for collaboration between higher education institutions and non-formal education providers. This model effectively addresses sustainability challenges by enhancing the organizational capacity of non-formal education institutions. However, to ensure that collaboration remains pedagogically relevant and participatory, institutional strengthening must be supported by contextual integration and participatory collaboration, and

gradually directed towards the development of a sustainable learning ecosystem.

However, beyond the normative perspective, the implementation of this model faces several practical obstacles in the field. One key challenge is budget constraints, both at higher education institutions and non-formal education providers. Collaborative programs often rely on short-term funding schemes (e.g., grants or annual projects), making program continuity vulnerable when financial support ends. Furthermore, limited funding allocations often prioritize basic operational needs over investments in institutional capacity building.

Bureaucratic barriers are also significant factors. Complex administrative procedures, differing financial accountability mechanisms, and rigid internal regulations can slow down the decision-making process and implementation of joint programs. Differences in organizational culture between academically inclined universities and more flexible non-formal institutions can also create gaps in expectations and work rhythms.

Furthermore, limited human resources, both in terms of numbers and managerial competency, often impact the effectiveness of institutional strengthening. Not all non-formal institutions have staff with sufficient strategic planning capacity or administrative skills to meet the governance standards required in formal partnerships.

Taking these constraints into account, institutional strengthening needs to be designed realistically and in stages, accompanied by sustainable funding mechanisms, streamlined collaboration procedures, and contextual capacity-building strategies. This approach provides a more balanced picture of the ideals of the collaboration model and the practical dynamics encountered in its implementation.

IV. CONCLUSIONS

This study affirms that the integration of higher education and non-formal education represents an effective and relevant strategy for supporting sustainable community development. The collaboration implemented at PKBM Ibum demonstrates that academic knowledge from higher education institutions can be organically connected with local practices through contextual, dialogical, and adaptive learning approaches. Equitable relationships among lecturers, students, PKBM managers, and community learners create a collaborative space that enables two-way knowledge exchange, allowing academic theories to be tested and enriched through the lived experiences of the community.

The findings also reveal that active community participation particularly among women’s groups constitutes a key factor in the success of collaborative programs. Their involvement in program planning, implementation, and evaluation indicates that non-formal education can function as an empowering space that fosters independence, capacity enhancement, and social transformation. Furthermore, this collaboration contributes to strengthening PKBM’s institutional capacity

through improvements in managerial competencies, documentation practices, and more systematic program planning.

Nevertheless, this study also identifies several structural challenges that require careful attention, including limited mentoring duration, differences in institutional work rhythms, and the lack of an optimal long-term monitoring and evaluation system. These challenges indicate that the integration of higher education and non-formal education necessitates a more structured and sustainable collaborative design, supported by strong institutional policies.

Implications of the Study

Theoretical Implications

This study reinforces the concepts of lifelong learning, Knowles' andragogy, and Freire's contextual learning model by demonstrating that the integration of theory and practice can be effectively achieved through dialogical partnerships. The findings also enrich the literature on learning societies and functional partnerships between formal and non-formal education.

Practical Implications

The collaborative model identified in this study can serve as a reference for other higher education institutions and community learning centers (PKBM) in designing community empowerment programs that are more relevant, adaptive, and sustainable. Experience-based and participatory approaches have been shown to enhance learning effectiveness as well as generate broader social impacts.

Policy Implications

The findings underscore the need for institutional policies that support long-term partnerships between higher education institutions and non-formal education providers. Such policies should include sustained funding support, clear collaborative regulations, and integrated monitoring and evaluation mechanisms to ensure the effectiveness and sustainability of collaborative initiatives.

Contributions of the Study

Academic Contributions

This study proposes an integrative model that positions higher education and non-formal education as equal partners within a community learning ecosystem. The model extends existing understandings of how academic theory can be operationalized within local contexts, thereby enhancing the practical relevance of scholarly knowledge for community development.

The field study conducted at PKBM Ibun provides concrete empirical evidence of successful collaborative practices, particularly in advancing women's empowerment and strengthening the institutional capacity of the community learning center (PKBM).

Social Contributions

This study demonstrates that educational collaboration can generate significant social impacts, including increased community participation, the strengthening of local micro, small, and medium enterprises (MSMEs), and enhanced self-reliance among vulnerable groups.

Limitations of the Study

This study has several limitations that should be acknowledged. First, the research was conducted in a single study site, namely PKBM Ibun, which requires caution in generalizing the findings to other contexts. Second, the duration of observation and mentoring was relatively limited, meaning that the long-term dynamics of educational collaboration were not fully captured. In addition, the study did not explore in depth the role of macro-level policy factors that may influence the sustainability of formal and non-formal education collaboration. Finally, the perspectives of students as key actors in the collaborative process were not examined comprehensively, indicating an important area for future research.

Recommendations for Future Research

For further research, comparative studies across different community learning centers (PKBM) or regions are needed to examine variations in collaboration models and the factors contributing to their success. Longitudinal research is also crucial to understand the sustainability and long-term impact of educational collaboration on institutional capacity and community empowerment.

From the perspective of higher education institutions, more structured collaborative program designs are needed, such as the development of project-based learning curricula, ongoing mentoring schemes, and more systematic integration between Merdeka Belajar-Kampus Merdeka (MBKM) activities and real community needs. This approach will allow collaboration to be integrated into the academic system and institutional performance indicators, rather than ad hoc.

For PKBM, institutional capacity strengthening needs to be carried out continuously through training in organizational management, financial governance, program documentation, and results-based evaluation. PKBM also needs to expand their partnership networks with universities, businesses, and civil society organizations to improve access to resources, funding, and technical expertise.

From a policy perspective, a more operational regulatory framework is needed to facilitate collaboration between formal and non-formal education, including collaborative funding mechanisms, incentives for universities actively partnering with Community Learning Centers (PKBM), and an integrated monitoring system involving local governments.

More specifically, harmonization of regulations at the technical level is crucial to ensure implementation does not stop at general norms at the law or Qanun level. Local governments need to translate these policies into gubernatorial regulations or regent/mayoral regulations that detail the cooperation mechanisms, joint financing schemes, division of authority, operational standards for collaboration, and performance evaluation indicators. Without clear technical regulations, collaboration risks being hampered by differing interpretations, overlapping authority, or procedural gaps. Therefore, vertical harmonization between national regulations, regional Qanuns, and technical regulations at the regional executive level will ensure that the educational collaboration system is not only normatively sound but also effective and applicable in daily institutional practice.

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