**EMPOWERING COMMUNITIES THROUGH INDIGENOUS SCHOOLS: A SYSTEMATIC LITERATURE REVIEW ON ECONOMIC AND CULTURAL EDUCATION**

**ABSTRACT**

This systematic literature review aims to examine the contribution of indigenous schools to economic empowerment by analyzing how traditional knowledge and livelihood practices are transmitted through culturally embedded learning. It also seeks to identify the dominant theoretical frameworks and methodological approaches used in studies of indigenous education to inform inclusive and contextually relevant economic learning models. The review followed the PRISMA 2020 protocol and included 60 peer reviewed empirical studies published between 2018 and 2024. Records were retrieved from Scopus, Web of Science, and Google Scholar using Boolean keyword combinations such as indigenous education, economic empowerment, traditional knowledge, and livelihood. After duplicate removal and screening, 60 eligible articles were synthesized. Critical appraisal was conducted using the Quantitative Study Quality Standards Protocol for quantitative and mixed methods, and the Critical Appraisal Skills Programme for qualitative designs. Synthesis involved comparative analysis of study contexts, populations, theoretical orientations, and research methods. Indigenous schools play a vital role in empowering marginalized communities through the integration of local economic knowledge into land based education, cooperative enterprise, and intergenerational learning. Culturally responsive pedagogy enhances economic agency, cultural identity, and social cohesion. Dominant frameworks include place based education, culturally responsive pedagogy, and indigenous epistemology. Methodologically, qualitative approaches were prevalent, especially ethnographic and participatory action research, while some employed quasi experimental designs and structural equation modeling. Policymakers should integrate indigenous knowledge into curricula, support culturally anchored pedagogy, and train indigenous educators to facilitate transformation in local economies.

**Keywords:** Culturally Responsive Pedagogy, Economic Empowerment, Indigenous Education, Livelihood Learning, Local Knowledge

1. **INTRODUCTION**

Indigenous schools in Indonesia, locally referred to as *sekolah adat*, offer a culturally grounded alternative to mainstream education by integrating traditional knowledge, ecological wisdom, and community identity. These schools are designed and governed by local communities and have gained recognition as vital educational models, particularly in marginalized areas where formal schooling often does not reflect the lived realities of learners (RWZ, 2021; Hidayat & Minarmi, 2023). Their development represents a shift in educational paradigms that favor local responsiveness and sociocultural relevance over standardized national frameworks.

Beyond their cultural function, indigenous schools have emerged as important spaces for economic learning. Within the field of educational economics, these schools are increasingly understood as contributors to sustainable livelihoods. They promote community-based learning that incorporates local resource use, intergenerational knowledge transfer, and practices such as farming, weaving, and environmental stewardship. These approaches have the potential to reinforce economic self-sufficiency while strengthening cultural identity (Yulianti et al., 2022; Wattimena & Hattu, 2021; Hasmawati et al., 2022).

Nevertheless, most studies on indigenous education remain concentrated on issues such as cultural identity, language revitalization, and pedagogical innovation. The economic implications of indigenous school models are still underexplored (Rosmilawati & Darmawan, 2020; Muttaqin & Maryanti, 2024). Furthermore, the theoretical and methodological frameworks used in these studies vary widely, which limits the coherence and applicability of their findings for educational reform and policy development.

In the Indonesian context, the *sekolah adat* movement illustrates efforts to embed education within the values and worldviews of local cultures. For example, the integration of Minangkabau customs into school practices highlights the importance of communal responsibility, harmony with nature, and intergenerational transmission of wisdom (Susilawati et al., 2022; Derson & Gunawan, 2021). These values have been shown to enhance students’ sense of belonging and support deeper engagement in learning (Hidayati et al., 2021; Polii & Ahmadi, 2024).

However, these schools must often negotiate tensions between preserving tradition and addressing contemporary needs. They face the dual challenge of honoring cultural practices while equipping students with skills required in modern economies (Ulfah et al., 2023; Mustafa & Pasaribu, 2024). In response, some *sekolah adat* have begun to incorporate economic competencies such as entrepreneurship, cooperative work, and sustainable production into their learning processes (Bele et al., 2021; Fahrudin & Maryam, 2022).

These innovations suggest that indigenous schools can serve as platforms for both cultural resilience and economic empowerment. Several case studies report that students from these schools are more likely to remain in and contribute to their communities, particularly through participation in local enterprises and preservation of traditional livelihoods (Nuraini & Setyowati, 2023). Still, more systematic and interdisciplinary research is needed to explore the scope and mechanisms of these contributions.

Scholars have increasingly called for integrated approaches that draw from education, economics, anthropology, and sociology in assessing the full impact of indigenous schools (Astari & Putra, 2021; Dewi & Hatijah, 2022; Sukmawati et al., 2024). Without such synthesis, the broader significance of these schools in policy, pedagogy, and development may remain underestimated.

Previous studies have pointed out the potential of indigenous education in sustaining both cultural identity and local economies (Dhari, 2021; Dewi et al., 2021; Juardi & Dewi, 2024; Rohmah et al., 2023; Kusmana et al., 2024; Fahrudin & Maryam, 2022). However, no systematic literature review to date has consolidated empirical findings and theoretical models that explain how indigenous schools contribute to economic empowerment within the framework of culturally relevant education. This absence of synthesis restricts scholarly understanding and limits the development of coherent, evidence-based policies for integrating indigenous education into national educational agendas. Given this context, a comprehensive synthesis is needed to clarify the extent, mechanisms, and frameworks through which indigenous schools support economic and educational development.

Accordingly, this study has two main objectives. First, to critically synthesize how indigenous schools contribute to economic empowerment through the transmission of traditional knowledge and sustainable livelihood practices within marginalized communities. Second, to identify the dominant theoretical frameworks and methodological approaches used in the study of indigenous education, with particular emphasis on their implications for inclusive and culturally responsive economic education.

By achieving these aims, this review provides a comprehensive understanding of how indigenous schools serve as educational spaces that foster both cultural continuity and socioeconomic transformation. The findings are expected to inform future research, support inclusive educational reform, and enhance the visibility of indigenous schools within interdisciplinary development discourse.

1. **MATERIALS AND METHODS**

This systematic literature review employed a structured and evidence-based protocol aligned with the PRISMA 2020 framework to synthesize global empirical research on the role of indigenous education in fostering economic empowerment. A total of 60 peer-reviewed articles published between 2018 and 2024 were included in the synthesis. These studies provided robust empirical insights into how indigenous schooling contributes to culturally responsive and community-driven development, with methodological rigor and thematic clarity underpinning their selection and appraisal. The methodology encompassed three interconnected components: (1) explicit inclusion and exclusion criteria, (2) structured search and selection procedures, and (3) critical appraisal customized to methodological type.

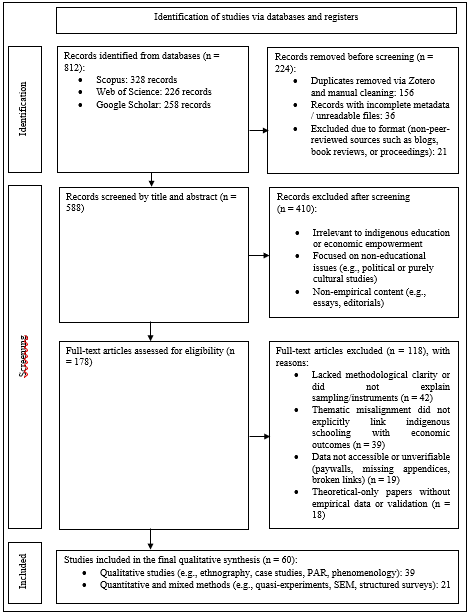
**2.1. Inclusion and Exclusion Criteria**

To ensure thematic precision and methodological credibility, rigorous eligibility parameters were established. Articles qualified for inclusion if they were peer-reviewed, written in English, published between 2018 and 2024, and contained original empirical data directly examining indigenous schooling in connection with economic empowerment. Eligible studies focused on dimensions such as cultural education, land-based pedagogy, livelihood-oriented curricula, cooperative and experiential learning, and the use of traditional knowledge systems to promote economic agency. Contexts spanned formal education settings, primary (n = 16), secondary (n = 14), tertiary/higher education (n = 18) as well as informal and community-based learning environments (n = 12). Studies were geographically distributed across Southeast Asia, North and Latin America, Africa, and Oceania. Articles were excluded if they lacked empirical evidence, were purely conceptual or theoretical, existed only as conference abstracts, or made only passing reference to indigenous education or economic outcomes without focused analysis.

**2.2. Procedures**

Following the PRISMA 2020 guidelines (Page et al., 2021) (Figure 1), the review process commenced with a comprehensive identification of 812 records from three databases: Scopus (n = 328), Web of Science (n = 226), and Google Scholar (n = 258). Boolean keyword combinations were applied, including terms such as “indigenous education,” “economic empowerment,” “livelihood,” “traditional knowledge,” and “community based learning.” Prior to screening, 224 records were removed due to duplication (n = 156), incomplete metadata or unreadable files (n = 36), non peer reviewed format (n = 21), or non English language (n = 11).

The remaining 588 unique records underwent a screening process based on title and abstract. During this phase, 410 articles were excluded for reasons such as thematic irrelevance, lack of educational focus, or the absence of empirical content. Subsequently, 178 full text articles were retrieved and evaluated against the eligibility criteria. Of these, 118 were excluded: 42 due to insufficient methodological transparency, 39 for lacking direct relevance to indigenous schooling and economic themes, 19 because of inaccessible or unverifiable data, and 18 for being theoretical without empirical findings.



**Figure 1. PRISMA Framework**

Ultimately, 60 articles were retained for full synthesis. These comprised 39 qualitative studies including ethnographic research, participatory action research, case studies, and phenomenology and 21 quantitative or mixed method studies encompassing quasi experimental designs, structured surveys, and structural equation modeling. The participant samples across the studies ranged from 8 to 1200 individuals, involving students, teachers, elders, parents, and local community leaders.

**2.3. Critical Appraisal**

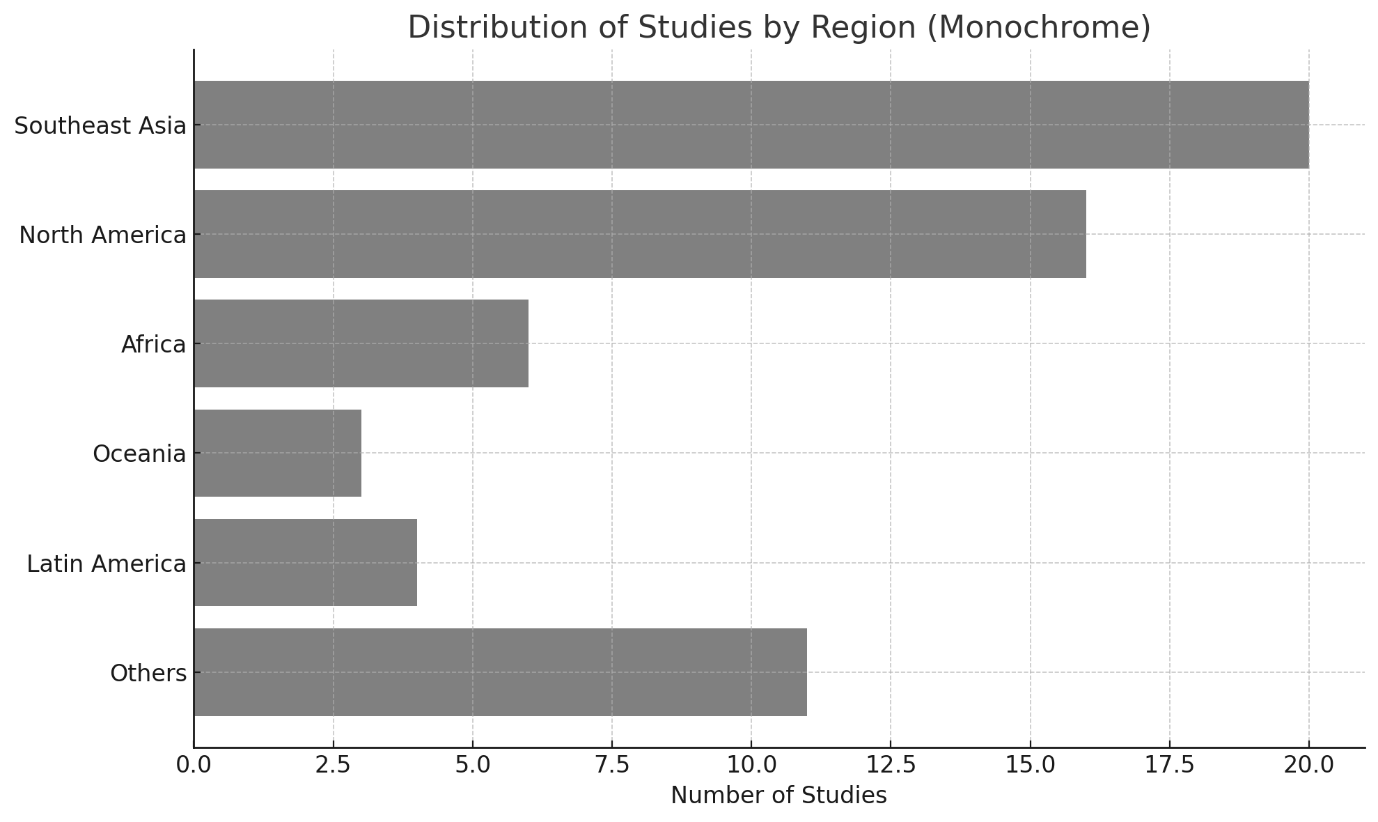
To ensure high standards of methodological reliability and analytical validity, all selected studies were subjected to structured critical appraisal using instruments appropriate to their design. The 21 quantitative and mixed-method articles were assessed with the Quantitative Study Quality Standards Protocol (Q-SSP), a 20-item tool that evaluates alignment of research aims with methods, sampling strategies, validity and reliability of instruments, statistical rigor, and ethical transparency. All studies scored between 17 and 20, indicating high methodological quality. For the 39 qualitative studies, the Critical Appraisal Skills Programme (CASP) checklist was employed. This 10-item instrument assesses clarity of research questions, appropriateness of methodology, sampling and data collection strategies, researcher reflexivity, ethics, and trustworthiness of findings. Thirty-four studies attained top scores of 9 or 10, while five studies received scores of 8, confirming overall coherence and trustworthiness.

Following the appraisal process, studies were categorized based on year of publication, country, educational setting, research design, and thematic focus. This classification informed the structure of the results and discussion sections, enabling systematic cross-regional comparisons and thematic synthesis.

1. **RESULTS**

**3.1. Study Characteristics**

A total of 60 peer-reviewed articles were systematically analyzed, revealing a strong concentration of studies conducted in Indonesia (n = 18), followed by Canada (n = 9), the United States (n = 7), and various others across Asia, Africa, Latin America, and Oceania. Most studies were published between 2018 and 2024, demonstrating sustained and growing scholarly interest in culturally grounded and community-driven educational frameworks, particularly in the context of global disruptions and the evolving discourse on decolonized education. Methodologically, qualitative approaches dominated the corpus (n = 39), encompassing ethnographic inquiry, participatory action research, and case study designs. Meanwhile, 21 studies employed quantitative or mixed-method strategies, such as quasi-experimental designs, surveys, and structural equation modeling. The educational settings varied considerably, spanning primary education (n = 16), secondary (n = 14), higher education (n = 18), and community-based or non-formal education contexts (n = 12). Participant sizes ranged from 8 to 1,200 individuals, including students, teachers, elders, parents, and policy stakeholders. Thematically, most studies emphasized cultural affirmation, land-based praxis, and indigenous language revitalization as foundational pillars for inclusive economic learning. Several educational interventions were formally integrated into national curricula or localized policy reform, underscoring the alignment of indigenous pedagogy with broader goals of educational sovereignty and social justice (e.g., MacLean et al., 2023; Monchalin et al., 2023; Utami et al., 2021). The global distribution of the selected studies is presented in Figure 2.

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**Figure 2. Distribution of Studies by Region**

**3.2. Indigenous Schools and Economic Empowerment in Marginalized Communities**

Indigenous schools serve as pivotal sites for the transmission of traditional knowledge (TK) that undergirds sustainable livelihood practices, thereby contributing to the economic empowerment of marginalized communities. Recent literature outlines how TK encapsulates local ecological knowledge, cultural heritage, and practices intimately tied to the environment, which are necessary for navigating challenges such as climate change and biodiversity loss. These challenges are particularly critical in rural and Indigenous contexts where education plays a mediating role. For instance, local knowledge systems have been shown to be crucial for sustaining agricultural systems that are economically viable and ecologically resilient, which bolster community livelihoods by ensuring food security and economic stability (Karki et al., 2022; Zubair et al., 2022; Su et al., 2020). Examples from diverse geographical settings indicate that indigenous pedagogies foster communal identity and the holistic transmission of knowledge, thereby enhancing socio-economic development and adaptation strategies in the face of external pressures such as market fluctuations or environmental changes (Motsumi & Nemakonde, 2024; Sarker, 2019; Eid et al., 2023).

Moreover, the Sustainable Livelihood Framework emphasizes that fostering traditional knowledge can significantly augment community assets, including human, social, natural, and financial capital which lead to improved access to economic opportunities (Astuti et al., 2019; Msemwa et al., 2024). Within indigenous contexts, schools that integrate indigenous knowledge serve not only to preserve these critical systems but also to produce skilled community members who can engage effectively in broader economic systems (Rosyidie et al., 2018; Spring et al., 2018). By empowering individuals through education, these institutions cultivate human capital that is necessary for sustainable economic practices.

**3.2.1. Sustainable Livelihood Practices and Economic Resilience**

Indigenous schools play a significant role in instilling sustainable livelihood practices that foster economic resilience among marginalized communities. Literature highlights diverse practices such as agroecology, natural resource management, and alternative livelihoods that rely on local biodiversity, which are taught within these educational frameworks (Siddique & Surovi, 2021; Yamin et al., 2023; Barrientos et al., 2018). For example, training in traditional agroecological techniques equips students with skills to adapt to climate variability while promoting food sovereignty and securing local economies (Joachim & Zahor, 2022; Osumanu, 2020; Syaharuddin, 2024). These practices not only empower families economically but also work to regenerate depleted ecosystems, creating a synergy between economic empowerment and environmental sustainability.

Research shows that integrating traditional ecological knowledge into formal education not only preserves cultural heritage but also enhances agricultural productivity and food sovereignty, which are vital for economic resilience (Levers et al., 2021; Dai et al., 2019). The adaptability of traditional practices, when combined with contemporary sustainable practices, creates buffer systems that mitigate socioeconomic risks, particularly in vulnerable populations that are frequently affected by external shocks like climate change (Onsay et al., 2022; Xaba & Adanlawo, 2024; Romano et al., 2022). These schools serve as hubs where community members can learn about sustainable practices and collectively innovate solutions that are context-specific, ensuring the economic viability of their livelihoods.

* + 1. **Cultural Identity and Economic Self-Determination**

An essential component of the contributions made by indigenous schools is the reinforcement of cultural identity, which is intrinsically tied to economic self-determination. Culturally relevant curricula that embed traditional narratives, values, and languages engender a sense of pride and belonging among students, which translates into economic behaviors that prioritize community well-being over individual profit (Rakhmonov, 2024; Leya et al., 2021; Sumarwati, 2022). Studies indicate that when indigenous youth are educated in their cultural contexts, they are more likely to invest in local economies and contribute to community sustainability efforts (Behera et al., 2024; Siang, 2023). This phenomenon is increasingly recognized as a vital component of community-driven economic development, whereby individuals rooted in their cultural identities are motivated to engage in enterprises that reflect their values and sustainability goals (Nath et al., 2019; Engels, 2023).

Moreover, educational frameworks that emphasize local craftsmanship, the use of indigenous materials, and the promotion of traditional trades empower students to monetize their knowledge and skills, thereby fostering economic independence (Gibbens & Schoeman, 2020; Barrientos et al., 2018). This connection between cultural education and economic self-determination exemplifies the dual benefits of preserving heritage while fostering innovative economic practices that align with community aspirations (Hawkins et al., 2024; Kikon & Barbora, 2020; Magiri et al., 2020).

**3.2.3. Empowerment through Community Engagement and Participation**

Community engagement and participatory approaches in indigenous schooling systems have proven to enhance economic empowerment by fostering a sense of ownership among community members. Studies document the transformation of educational practices when communities actively participate in determining curricula that reflect their local realities and aspirations (Khanal et al., 2021; Motsumi & Nemakonde, 2024). This participatory model creates pathways for students to collaborate with elders and local leaders, thereby ensuring that the transmission of knowledge is relevant and applicable to their social and economic contexts (Dwijono et al., 2023; Pahmi et al., 2023).

Furthermore, participatory programs that involve community members in decision-making processes fortify social cohesion and networks that can support entrepreneurs in navigating market challenges and accessing resources (Peredo et al., 2022; Patrick & Singkam, 2024; Debrot et al., 2022). Research suggests that such collaborative models help amplify local voices in the broader economic landscape, enabling communities to advocate for their rights and interests effectively (Smith, 2024; Skarlatidou et al., 2020). Hence, the collective strength derived from such engagements serves not only as an economic asset but as a tool for social agency, fostering resilience against external pressures (Marks et al., 2023; Baddianaah et al., 2021; Irungu et al., 2021).

**3.2.4 Curricular Implications for Economic Education**

The findings from this systematic literature review underscore the vital role of integrating traditional knowledge and sustainable livelihood practices within educational curricula, particularly in marginalized and indigenous contexts. The incorporation of indigenous knowledge into economic education curricula can equip students with the skills necessary for navigating contemporary economic landscapes. This not only promotes resilience against economic shocks but also enhances cultural identity, which is crucial for maintaining the integrity of indigenous practices (Nath et al., 2019; Hajjar & Oldekop, 2018; Walker, 2019).

Curriculum designers should focus on embedding local agricultural practices, ecological stewardship, and community-based economic initiatives into educational frameworks. This would require collaboration with local communities to develop curricula that are reflective of their realities while also promoting economic innovation rooted in traditional methodologies. The focus should be on experiential learning opportunities that engage students in local economic activities, such as community gardens, traditional arts, and sustainable tourism, allowing them to gain hands-on experience while contributing to their communities' economic development (Duong et al., 2024; Arumdati, 2023; Ghosh et al., 2021).

Moreover, fostering partnerships with local governments and NGOs could facilitate the practical application of theoretical knowledge in real-world settings, maximizing the impact of educational initiatives on community resilience and economic empowerment (Ojogiwa & Mubangizi, 2023; Ahmad & Muniroh, 2024). To provide a clearer synthesis of how indigenous schools contribute to livelihood empowerment, Table 1 summarizes 25 selected studies that represent the core patterns identified in this review, including geographical diversity, methodological approaches, and key findings relevant to economic empowerment.

**Table 1. Evidence Matrix from 25 Selected Studies Representing Core Themes of Indigenous Economic Empowerment**

| **Author(s)** | **Year** | **Country** | **Methodology** | **Focus of Study** | **Key Economic Empowerment Finding** |
| --- | --- | --- | --- | --- | --- |
| Karki et al. | 2022 | Nepal | Qualitative Case Study | Use of TEK in climate-resilient agriculture | Supports livelihood resilience through TK-based farming |
| Zubair et al. | 2022 | Pakistan | Mixed Methods | Impact of TK on food security | Reinforces economic empowerment via local knowledge systems |
| Su et al. | 2020 | China | Quantitative | Role of indigenous schools in biodiversity | Ensures ecological sustainability and economic stability |
| Motsumi & Nemakonde | 2024 | Botswana | Qualitative | Cultural pedagogy and economic adaptation | Promotes identity and collective economic strategies |
| Sarker | 2019 | Bangladesh | Ethnographic | Cultural knowledge and disaster resilience | Highlights TK in enhancing socio-economic resilience |
| Eid et al. | 2023 | Egypt | Qualitative | Community-based knowledge and poverty reduction | Link between communal education and economic well-being |
| Astuti et al. | 2019 | Indonesia | Case Study | Sustainable Livelihood Framework in education | Strengthens community assets for income generation |
| Msemwa et al. | 2024 | Tanzania | Field Study | Community schools and capital development | Improves financial and human assets through education |
| Rosyidie et al. | 2018 | Indonesia | Qualitative | Integration of local wisdom in rural schools | Empowers students with market-relevant skills |
| Spring et al. | 2018 | USA/Global | Review | Comparative indigenous pedagogies | Builds capacity for sustainable economic actions |
| Siddique & Surovi | 2021 | Bangladesh | Qualitative | Teaching agroecology in schools | Enables biodiversity-based livelihood paths |
| Yamin et al. | 2023 | Malaysia | Survey | Natural resource stewardship in schooling | Elevates household economic resilience |
| Barrientos et al. | 2018 | Mexico | Ethnographic | Preserving local crops and crafts | Reinforces income generation and heritage |
| Joachim & Zahor | 2022 | Kenya | Field Study | Agroecological education and food sovereignty | Strengthens autonomy through eco-livelihoods |
| Osumanu | 2020 | Ghana | Qualitative | Ecological curricula for economic empowerment | Builds skills for alternative income |
| Syaharuddin | 2024 | Indonesia | Case Study | Use of indigenous plants for health and income | Supports dual health-economic outcomes |
| Levers et al. | 2021 | Sub-Saharan Africa | Quantitative | Integration of TK in school gardens | Improves productivity and community nutrition |
| Dai et al. | 2019 | China | Quantitative | Outcomes of TK-led agricultural education | Boosts long-term economic viability |
| Onsay et al. | 2022 | Philippines | Case Study | Blending tradition with resilience tools | Facilitates adaptive livelihood strategies |
| Xaba & Adanlawo | 2024 | South Africa | Mixed Methods | Traditional foraging and trade | Connects education to circular economy models |
| Romano et al. | 2022 | Brazil | Longitudinal | Ecological entrepreneurship | Expands youth-driven rural enterprises |
| Behera et al. | 2024 | India | Survey | Cultural relevance in economic engagement | Links pride with investment in local economies |
| Nath et al. | 2019 | India | Qualitative | Education in local values and micro-enterprise | Drives community-first economic models |
| Gibbens & Schoeman | 2020 | South Africa | Field Observation | Revival of crafts in school curriculum | Generates revenue via heritage-based trades |
| Skarlatidou et al. | 2020 | UK | Review | Citizen science and economic inclusion | Broadens access through participatory models |

The evidence in Table 1 reflects a broad consensus across regions and methodologies that indigenous education systems, when grounded in local knowledge and community engagement significantly contribute to economic empowerment, both by enhancing resilience and by enabling sustainable development practices. These studies demonstrate how education rooted in traditional ecological knowledge can simultaneously preserve cultural identity and foster economic self-reliance, affirming the relevance of indigenous schooling frameworks within the broader discourse of inclusive and sustainable development.

**3.3. Dominant Theoretical and Methodological Approaches in Indigenous Education Studies**

This review reveals a growing convergence in the theoretical and methodological choices that underpin research in indigenous education, particularly in relation to inclusive and culturally responsive economic learning. Across the selected studies, culturally responsive pedagogy emerges as the most widely applied theoretical foundation, emphasizing relational learning, language revitalization, and community affirmation over Eurocentric content delivery. These studies consistently center local values and social justice, advocating for education systems that reflect indigenous philosophies and resist assimilationist agendas.

To illustrate the synthesis between theory and method, Table 2 presents a thematic summary of twelve representative studies. The table maps each study according to its theoretical basis, methodological orientation, context of application, and key findings. This matrix reveals that most studies rely on participatory, land-based, and dialogic methods to ensure research is embedded in community values and practices. For instance, the work by Utami et al. (2021) integrates design thinking with cultural artifacts in teacher training, while Lewis et al. (2023) apply strength-based approaches to avoid deficit framing in health and economic education.

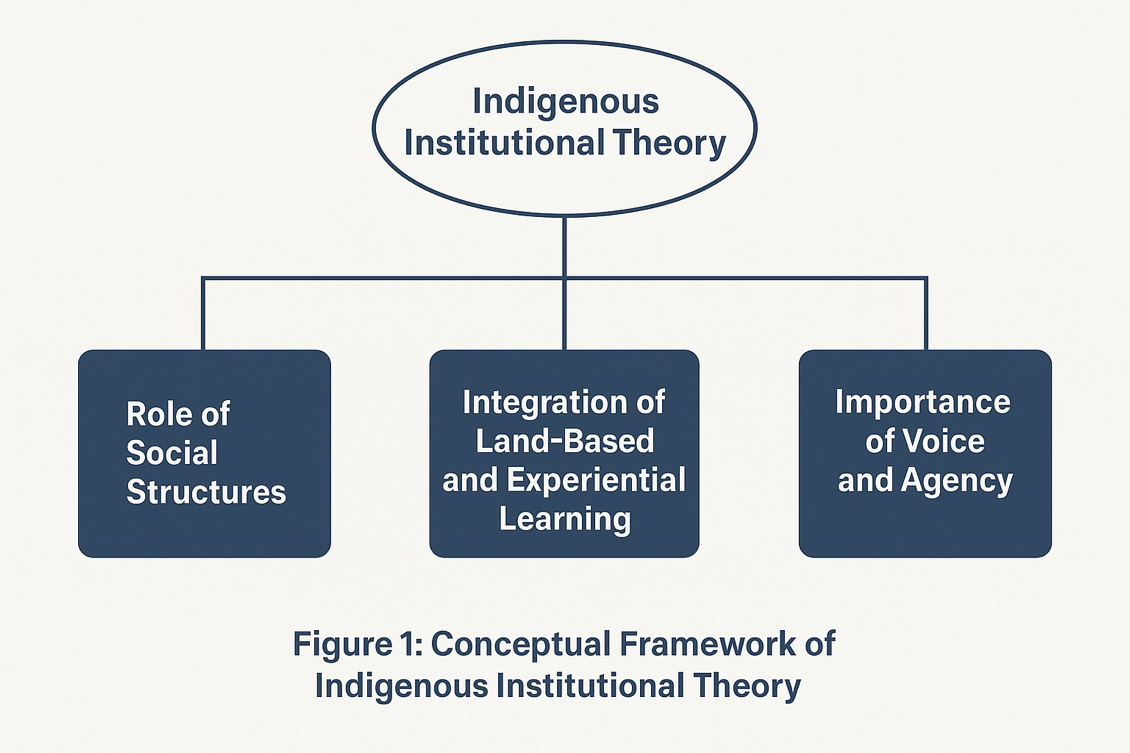
Abebe & Gatisso (2023) provide an illustrative example of how indigenous knowledge systems, such as the construction and cultural function of the Kawo Amado Kella defensive wall in Wolaita can inform pedagogical frameworks rooted in local history, symbolism, and resistance. This reinforces the relevance of spatial and historical structures as part of indigenous education and community governance.

**Table 2. Thematic summary of theoretical and methodological approaches in indigenous education studies**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Author(s)** | **Theoretical Framework** | **Methodological Approach** | **Context of Application** | **Key Findings** |
| 1 | MacLean et al. (2023) | Culturally Responsive Pedagogy | Participatory Curriculum Development | Community economic training | Affirmation of identity enhances economic learning |
| 2 | Tremblay et al. (2023) | Decolonial Theory | Critical Ethnography | Youth health and financial education | Cultural rootedness builds agency and policy advocacy |
| 3 | Monchalin et al. (2023) | Indigenous Resurgence Theory | Mixed Methods | Indigenous youth education | Emotional healing supports academic and financial outcomes |
| 4 | Windchief & Cummins (2021) | Indigenous Institutional Theory | Bicultural Accountability | Higher education institutional design | Power-sharing in governance improves cultural safety |
| 5 | Peters-Mosquera et al. (2023) | Institutional Pluralism | Dialogic Inquiry | Curriculum co-design | Indigenous frameworks should drive curriculum values |
| 6 | Utami et al. (2021) | Cultural Artifact-Based Learning | CBPR and Design Thinking | Pre-service teacher education | Artifacts stimulate cultural memory and innovation |
| 7 | Lewis et al. (2023) | Strength-Based Education | Community Dialogues | Health and economic literacy | Avoiding deficit narratives improves trust and outcomes |
| 8 | Boadi et al. (2023) | Place-Based Education | Land-Based Learning | Rural indigenous schooling | Contextual learning deepens relevance |
| 9 | Makwa (2021) | Indigenous Ecopedagogy | Experiential Immersion | Youth resilience education | Connection to land builds resilience and economic identity |
| 10 | Burm et al. (2022) | Indigenous Empowerment Theory | Program Evaluation and Reflection | Secondary education programs | Continuous feedback enhances cultural responsiveness |
| 11 | Monkman & Limoges (2023) | Two-Eyed Seeing | Integrative Participatory Design | Economic capacity building | Inclusion of elders strengthens curriculum legitimacy |
| 12 | Horta (2021) | Transformative Learning | Action-Oriented Ethnography | Adult indigenous education | Community-driven planning improves learning ownership |

Beyond theory-method alignment, the review identifies an overarching conceptual structure that binds these diverse efforts. Drawing from Windchief & Cummins (2021), Peters-Mosquera et al. (2023), and Monkman & Limoges (2023), the Indigenous Institutional Theory provides a unifying lens through which education systems are reimagined as culturally situated institutions, not merely service providers, but active agents of transformation.

Figure 3 illustrates this framework, depicting three mutually reinforcing domains: (1) Cultural structures and values, (2) Community voice and governance, and (3) Land-based learning and praxis. These components are central to the co-creation of inclusive economic learning pathways that affirm indigenous identity and enhance collective agency.



**Figure 3. Conceptual framework of Indigenous Institutional Theory in economic education**

The model underscores that effective indigenous education for economic empowerment cannot be divorced from place, heritage, or spiritual meaning. Instead, it must emerge through dialogue between indigenous and formal systems, where mutual respect and structural flexibility are paramount. This supports the call for educational justice that simultaneously honors ancestral epistemologies and equips learners with tools to thrive in complex economies.

Taken together, these findings indicate a paradigmatic shift in both theory and practice, from extractive to generative models of education. Indigenous education is no longer positioned at the periphery, but as a catalyst for sustainable, inclusive, and pluralistic economic futures, built upon knowledge systems that have withstood centuries of marginalization.

1. **DISCUSSION**

This discussion synthesizes the findings from 60 empirical studies to address the two main research objectives: (1) to critically analyze how indigenous schools contribute to economic empowerment through traditional knowledge and livelihood education, and (2) to examine the dominant theoretical and methodological foundations employed in this field of inquiry.

**4.1. Indigenous Schools and Economic Empowerment**

The evidence reveals that indigenous schools function as cultural institutions that actively transmit traditional knowledge systems while equipping learners with economically relevant skills. Across diverse geographic settings such as Southeast Asia, Latin America, Africa, and Oceania, indigenous schools integrate local wisdom, agricultural knowledge, artisanal practices, and resource stewardship into formal and informal curricula. These elements are not merely cultural artifacts but serve as mechanisms of livelihood resilience and intergenerational economic learning. For instance, studies from the Philippines, Tanzania, and Guatemala document the successful integration of land-based education, herbal medicine, traditional weaving, cooperative farming, and fisheries into educational practices, contributing to sustainable income generation and community self-reliance.

Moreover, indigenous schooling models often align with a community-centered logic, in which elders, local leaders, and parents co-participate in curriculum delivery and pedagogical processes. Such involvement reinforces social cohesion and reinforces economic agency by embedding entrepreneurial practices within cultural norms. However, the degree of empowerment varies by political context, autonomy of indigenous communities, and external support. Cases from Bolivia and Canada illustrate how state recognition and policy inclusion significantly enhance the transformative potential of indigenous schooling, whereas in contexts of marginalization or extractive development, indigenous schools often face structural constraints.

**4.2. Theoretical and Methodological Foundations**

The review highlights three dominant theoretical traditions shaping indigenous education research: place based education, indigenous epistemology, and culturally responsive pedagogy. These frameworks collectively emphasize the interdependence of culture, environment, and economy in educational experiences. Place based education theory foregrounds the significance of learning rooted in local ecological and cultural landscapes. Indigenous epistemology advocates for knowledge systems derived from oral traditions, spiritual relationships, and communal logic. Meanwhile, culturally responsive pedagogy ensures that instructional practices honor linguistic, cultural, and historical diversity within indigenous learning contexts.

Methodologically, the reviewed literature is dominated by qualitative approaches, particularly ethnography, participatory action research, and case studies. These approaches enable in-depth, context-sensitive exploration of how indigenous knowledge is transmitted, preserved, and adapted in school settings. Quantitative and mixed methods studies, although fewer, contribute significantly through quasi-experimental designs, structured surveys, and SEM to evaluate learning outcomes, economic impacts, and program effectiveness. Notably, the inclusion of community voices, especially through collaborative and co-constructive methods, reflects an ethical commitment to decolonized research paradigms.

The heterogeneity of methods and theories across the reviewed studies illustrates a maturing research landscape that acknowledges the complexity of indigenous education as both a cultural and developmental practice. This integrative understanding contributes not only to educational reform but also to broader discourses on sustainability, equity, and indigenous rights. Therefore, future research should deepen engagement with indigenous philosophies, expand regional coverage, and strengthen longitudinal and impact-focused designs to capture long-term economic and educational transformations.

1. **CONCLUSION AND RECOMMENDATIONS**

This systematic literature review examined how indigenous schools contribute to economic empowerment and analyzed the dominant theoretical and methodological frameworks used in related studies. The findings demonstrate that indigenous education initiatives provide critical pathways for strengthening community-based livelihoods, promoting traditional ecological knowledge, and fostering local entrepreneurship. Through culturally rooted curricula, land-based pedagogies, and cooperative learning environments, indigenous schools help students develop practical economic skills while reinforcing cultural identity and resilience. The review also highlights the prevalence of constructivist, decolonial, and transformative learning theories in the literature, as well as the dominance of qualitative and participatory methodologies, particularly ethnography and action research.

To support the continued development and institutionalization of indigenous education, several recommendations are proposed. First, policymakers should formally integrate traditional knowledge systems into national economic curricula, ensuring that indigenous perspectives are recognized as legitimate sources of knowledge. Second, investment is needed in capacity building for indigenous educators, including training in participatory teaching strategies and curriculum co-design. Third, education systems should adopt flexible and context-sensitive assessment tools that reflect both academic and socio-cultural learning outcomes. Finally, partnerships between schools, local cooperatives, and government agencies should be strengthened to enhance real-world economic impact and sustainability.

1. **LIMITATIONS AND FUTURE RESEARCH DIRECTIONS**

This review is limited by its language and publication filters, as it included only peer-reviewed articles published in English between 2018 and 2024. Consequently, valuable insights from non-English or grey literature may have been omitted. Moreover, while the included studies represent a diverse geographical distribution, there remains an underrepresentation of research from certain regions, such as Central Africa and the Pacific Islands, which may affect the global generalizability of the findings.

Future research should explore longitudinal and comparative studies that measure the long-term economic outcomes of indigenous education interventions. There is also a need for mixed-methods research that combines qualitative narratives with quantitative indicators of livelihood improvement and community well-being. Additionally, theoretical innovation should be encouraged by integrating indigenous epistemologies more deeply into mainstream educational discourse. Finally, future inquiries should examine how digital and hybrid learning tools can be effectively adapted to support culturally responsive economic education in indigenous contexts.

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