

Research Article

Indigenous-Based Adult Education Learning Material Development: Integration, Practical Challenges, and Contextual Considerations in Focus

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Indigenous perspectives hold promising opportunities for education and practice. It is possible to entertain indigenous knowledge into adult education through modelling, guided practice, and application approaches. However, there are several limiting factors to do so. Today, many indigenous knowledge systems and practices are at risk of becoming extinct because of rapidly changing natural environments and fast pacing economic, political, and cultural changes on a global scale. Considering this, therefore, this study is aimed at exploring the integration, existing practical challenges of indigenous based adult education, and forward contextual consideration from the perspectives of learning material development. In doing so, a case study research design was employed. Data was collected from adult education experts, adult literacy centre coordinators and adult learners who were drawn by using purposive sampling technique. Data were obtained through interview and FGD. Thematic analysis was placed as the centre of data analysis method. As a result, the integration of indigenous knowledge into educational programs especially in adult education has been passed with many ups and downs. The inclusion was found at a substandard level due to a lack of gratefulness and value regarding what indigenous knowledge might bring to educational practice and how it might be enacted into learning materials. Although the integration has been challenged with many barriers, fortunately, many opportunities which need to be considered are emerging. Context-based working strategies and guidelines have to be advanced by governments aim at mobilizing community support for indigenous based education development and handover to generations through revitalizing all forms of educational provision within the local and global market context.

1. Introduction

In recent years, it has been renewed interest in discovering indigenous populations who have remained strong and resilient in maintaining their unique nature, culture, and values that continue to develop over time [1–3]. Indigenous views on nature and indigenous knowledge [hereafter, IK] in science at different levels vary among societies and cultures across the globe [4, 5]. Authors in the literature (E.g., [6–8]) conceptualised IK as the cumulative body of strategies, practices, techniques, tools, intellectual resources, explanations, beliefs, and values accumulated over time in a particular locality. Likewise, other scholars also remarked

that IK desires the development of indigenous people's identities, languages, and religions established from their strong relationship with nature within their context [1, 9, 10].

Indigenous perspectives enhance the notions of relationality, holism, and reaffirm the educational disciplines' most foundational values [11–13]. Indigenous communities can reclaim and revalue their languages and traditions to improve their educational success and ensure their survival [14, 15]. The weaving of IK into adult education [hereafter, AE] involves a considerable amount of emotional and relational labour from indigenous academics, educators, and elders [11, 16]. Regarding the practice of AE programs in Ethiopia, its learning materials and facilitation methodology

have been designed to entertain learners with the application of key indigenous based life skill learning contents. The incorporation of IK into AE learning materials brings many alternatives for looking at the world with new perspectives. Also, helps to equip adult learners with different skills needed for granting their personal and socially sustainable development [17, 18]. Yet, as discoursed by several authors IK integration into AE has been faced with many challenges [19–24]. One of the major hindering factors that can be raised is less consideration given to indigenous education.

Beforehand, many studies have been conducted in Ethiopia focusing on exploring the systems and practices of integration established between IK and AE. As far as the researchers' knowledge is concerned, IK and AE issues have been explored by previous studies [1, 25–30]. The practice and integration of IK based AE in the North Wollo [hereafter, NW] zone were studied in detail by Assefa [27]. Unfortunately, major challenges facing the inclusion of IK into AE learning materials and facilitation methodology and contextual consideration were not explored adequately and he suggested to explore. In this sense, this study is the extension of work of Assefa's [27] study. Inspired by this, therefore, the researchers initiated to study indigenous based AE learning materials development with special emphasis to exploring hindering factors and forwarding some contextual considerations. Considering all these in mind, this study was tried to answer the following basic research questions. These are the following:

- (i) How have the evolving challenges deterred the process and practice of IK integration into adult learning material development?
- (ii) What are the available contextual considerations which could contribute to the effective integration of IK into AE learning materials and facilitation methodology?

2. Theoretical Framework

The debate over the use of IK and its epistemological status first appeared in the academic literature of the 1980s, both in the social and in the natural sciences [31]. Accordingly, various terms have been given to IK such as traditional knowledge, traditional IK, traditional environmental knowledge, and local knowledge [15, 32]. Likewise, Dentzau [33] named IK as ancestral indigenous traditional knowledge that forms the basis in the maintenance of our forbearers' scientific knowledge. IK is communal, and it links past, present, and future generations and is closely interwoven with people's cultural value with their interaction with the environment [7, 15, 17, 34, 35]. It is generated by a particular society within a geographical area, and its systems and practices have evolved through time to provide solutions to local problems [36–38].

IK is transmitted into AE over specific cultural and traditional information exchange mechanisms through language (for example, oral history, stories, songs, narratives, and place names), social organization, ceremonial practices,

observation, values, institutions, cultural formalities, and laws [17, 38–42]. Scholars in the field displayed a three-phase approach involving maintaining the continuity of IK in the provision of AE programs and its learning materials. These are *modelling* (the elder demonstrates and explains an appropriate approach to maintaining IK), *guided practice* (the followers of the elders perform specified tasks with help, criticism, and support from the owner), and *application* (followers perform independently of the owner, either individually or in groups) [43–45].

Increasingly, the relevance of IK systems to present global challenges has been recognized [42]. However, today, many IK systems are at risk of becoming extinct because of rapidly changing natural environments and fast pacing economic, political, and cultural changes on a global scale [15, 42, 44]. The marginalization of indigenous viewpoints is contributed to educational inequalities even though there is a growing awareness of the contribution of IK for sustainable education and development [17]. Several barriers contribute to the shortcoming of IK to coexist with adult learning material and the minds of learners and facilitators. Barriers are related to limitations of time and corresponding learning materials, prescribed curricula, the selection of appropriate pedagogies, and teachers' doubts [5, 11, 20].

Also, the tension that exists between IK and the hegemonic dominance of the paradigm of western scientific enterprise fails to recognize the benefit of accumulating observational knowledge over long periods [33, 46]. The decolonization of the African academy remains one of the biggest challenges not only in terms of the curriculum, teaching strategies, and textbooks but also in terms of the democratisation of knowledge and adaptation of old epistemologies to suit new postcolonial realities [6, 17, 44]. The intergenerational disturbances have also subsequently impacted the physical, mental, emotional, and spiritual well-being of indigenous people [3]. Thus, it is very crucial to integrate IK with the educational curriculum. In the impartial application of modern knowledge, no doubt can lead civilization to a new stage [17]. Currently, the growing recognition of IK incorporation into the education system is increasing worldwide. It can be a response to the erosion and loss of IK resulting from the process of colonization, globalization, and modernity [17]. This practice can be considered to minimize challenges through integrating IK into AE programs learning material and facilitation through developing/adapting methodologies that serve the local people and the adult learners.

When important steps were made in the area of IK sharing for sustainable education and development, the success in understanding community-based knowledge was almost ignored [35]. Issues of authenticity, ownership, and misappropriation of IK also remain a growing concern worldwide [11]. In most cases, IK is handed down orally from generation to generation due to weak communication; sometimes, it is impossible to transfer exact knowledge [35]. Regarding this Naamwintome and Millar [13] mentioned two common problems: for example, (1) the inability of codification and documentation impedes the protection of intellectual property rights, and (2) there are no laws that are exclusively

devoted to the protection of traditional knowledge. The existing circumstances demand that there is a great need to document the IK.

Approaches like intergenerational accumulation and communication of knowledge, personal communication, and demonstration are energetic for the exchange of IK which is a handover from master to apprentice [35, 39]. IK experiences that gathered momentum through generations is being developed and standardised through innumerable experimentation and practices [2]. The elderly members who have long experiences in IK often instruct the younger generation on the need to live in harmony with nature [6, 7, 17, 47]. Here, it is important to recognize that the popularization and dissemination of knowledge generated by the community through indigenous language are vital to preserving IK [17, 44]. Due recognition to indigenous peoples is required because often they are proud of their diversity, their languages, and their belief and knowledge systems. Indigenous communities need respect for their value systems and ways of life in the context of development initiatives [35].

3. Methods and Materials

This study is targeted at the NW administrative zone, found in the northeast part of Ethiopia. In doing this study, qualitative research approach with case study design recognized by [48] was employed. Since this study is the extension work of Assefa [27] entitled *Integration of Indigenous Knowledge into Adult Learning Material Development and the Facilitation Methodology*, he suggested that “the integration of IK into AE practice has been practiced fully of many ups and downs. Therefore, researchers are suggested to scrutinize practical challenges, available opportunities, and contextual considerations of IK and AE” (pp. 8). Considering this in mind, this study methods and materials have been directly adopted from him due to the reason that all the study procedures, samples and sites were similar. As a result,

The sample participants were carefully chosen from different segments of the study area aim at hearing diverse perspectives about the issue being investigated. Hence, the sample was composed of forty adult learners (within four FGDs), twelve AE experts (four participants for interview and eight for FGD), four AE literacy centre coordinators. A total of fifty-six ($N = 56$) participants were drawn by using purposive sampling techniques. Data were obtained from all those respondents through multiple data-gathering instruments such as interviews and FGD. Furthermore, a semi-structured interview was administered for AE experts and coordinators. The key interview issues were defined and arranged in the form of an interview guideline which helps to guide the focus as well as the direction of discussion with the interviewees. In addition to this, FGD was carried out as major data capturing strategy from adult learners. Participants in each focus group were confined to ten adult learners. Procedurally, the discussion with each interviewee and focus group lasted between 45 and 60 minutes. The discussion with respondents was structured around themes aimed at specifying cases capturing high impact issues to

the investigation. Clarification on some questions was enhanced through probing and prodding during the meeting. Respondents’ opinion was captured through audio recording and transcript verbatim. In the course of gathering data and its reporting, all respondents’ confidentiality was protected using anonymity codes which represent study participants indirectly. Their name was coded, for instance, AE experts as E1, E2, and E3; AE coordinators as C1, C2, C3 and C4, and adult learners’ opinion in FGDs were pronounced as FGD1, FGD2, FGD5 ([27], pp: 3-4).

The collected data were analysed and interpreted through thematic analysis [48, 49]. In doing so, data was well thought-out through encrypting and exhaustive explanation of cases under themes, and prevailing case events were emerged parallel with the development of data gathering. After that, by creating a thematic framework, a category system was employed based on the research questions. Third, the researchers sorted out the quotes of respondents by giving more emphasis to keywords and phrases and making comparisons both within and between the cases were carried out. As used earlier by Assefa [27], this study researchers gave thoughtful attention to a few problems for investigation of the complexity of the cases through lifting the quotes from their original context and put similar ideas together by rearranging them under the newly developed thematic content. Finally, as suggested by Creswell [48], the researchers tried to present the result in a specific way through chronological report of each case under themes and subthemes aimed at enhancing readers to easily understand what the study findings are talking about. Furthermore, effort has been made to associate these study findings to previous literature evidences.

4. Results

The nature of IK and AE is so broad and to study it to such an extent and requires a large time, many numbers of researchers, and resources. With these constraints in mind, the study results presentation was delimited to only (a) uncover major practical challenges of IK inclusion into AE in NW zone and (b) forward contextual consideration. Therefore, the researchers kindly inform the audiences that due to space constraints, other issues related to IK and AE practice were not considered. In the meantime, the integration of IK into educational programs in NW especially in nonformal AE has been passed with many ups and downs. This exercise limits the inclusion of IK as a major learning foundation when developing the AE learning materials and facilitation methods. The most observed practical challenges and the proposed contextual considerations are mentioned under the subsequent themes below.

4.1. Challenges of IK Inclusion into AE Learning Materials

4.1.1. *Restraints on Bringing Previous Wisdom and Knowledge Practice.* Local communities are characterised by having many pearls of wisdom that are relevant for their survival. Developing learning materials using adult learners’ language serves as a stepping point for using and

transferring their wisdom, knowledge, traditions, etc. Most of the population in the zone speaks *Amharic* as their mother tongue language. Due to this, any kinds of educational learning materials and documentation are using this local language for initial literacy (FGD2, FGD3, and FGD5). Parallely if possible, creating culturally responsive bilingual learning materials for adults helps to uncover historical and traditional knowledge. For instance, the Ethiopian ancient language, Ge'ez (ግዕዝ), known as Ethiopic, is of paramount significance because the ancient IK of Ethiopia and the Orthodox church is recorded and preserved mainly in this language [8]. However, the emphasis given is narrow. During an interview with key informants, it can be understood that

The Ge'ez language has been widely used in the Orthodox church for literature, preaching, and liturgical services. Large numbers of the church books and sculptures had been written in Ge'ez hold untouchable pearls of wisdom and knowledge such as traditional medicine preparation, astronomy study, peacebuilding and solidarity, seasons prediction for farming, plants and their use, etc. However, the large people do not speak this language except for the priests. If so, how can we explore knowledge from these aged books and sculptures? Shall we simply wait for this knowledge to be stay closed and departed after a while? We and other stakeholders have to do learning materials that address and entertain such kind of issue (E1).

Practically, AE coordinators disclosed that the development of learning materials and facilitation methods failed to understand community-based knowledge as a starting point of learning. This practice exacerbates the continuity of limitation of giving value to the oral and practical wisdom of indigenous peoples in AE (C1 and C4). A similar study finding also showed that even though several local knowledge sources that enhance learners' capability for sustainable development are existing, proper recognition and utilization by decision-makers are not there [8].

The effect of interventionism made by foreign doctrines also contributed for underestimate local wisdom and knowledge bases. Meeting with FGD5 naked the hegemonic dominance of imported scientific enterprise-oriented learning materials contribute for missing forefather's indigenous wisdom and knowledge. An interview with a key informant revealed that:

Let us see our fathers and mothers who have passed away centuries ago. They had a lot of knowledge although they had not attained and developed it through what we call now modern education. They could simply solve different conflicts, used many plants and animals for healings, and built amazing rock-hewn churches (E.g., Lalibela) without any technological assistance. Let you observe! are these kinds of knowledge practices are existing currently in our community? I have a doubt. For instance, we cannot repair what our fathers and mothers had done; we can take Lalibela as a case, menders are coming from abroad, France. We lost this knowledge merely due to not working what was expected from us. We and others concerned ignored ancient IK and did not include it not only in our adult learning materials but also in informal educational systems (E3).

Due to great influence arising from international/abroad media, educational emphasis is shifting from indigenous-based learning to adopting others. Of course, this has its advantage for taking global experiences and perspectives. However, the more we depend on imported learning systems, the more our community will lose what they had.

4.1.2. Lack of Expertise. AE personnel have a pivotal role in enhancing IK systems and practice into AE learning material development and facilitation methodology. From the discussion with FGD5, it was found that NW has good initiation and aspiration to make IK a foundation of any kind of educational and developmental program in the area. However, this image is not available at the grassroot level workers and facilitators. Discussion with participants exposed that AE facilitators are described as having a lack of employing formal and non-formal learning styles and teaching methods as a means of generating and transmitting indigenous knowledge (C2 and C3). In different parts of the zone, several indigenous-based projects have been inaugurated aimed at empowering the local community through AE programs. However, most of the projects did not achieve their target due to a shortage of skilled experts who guide the process. For instance, one respondent remarked that

The NW zone in collaboration with donor individuals and organizations had launched a community-based ecotourism education project at our district, Meket. The project proposed to benefit around three thousand and four hundred adult people in fourteen sites. When opening, the project was the first even in Africa, but it did not sustain for a while due to existing problems mainly explained by the scarcity of skilled facilitators/educators who deliver the training through different learning platforms. The learners also left the sessions. As a result, it was unable to continue and sustain this indigenous-based ecotourism educational practice (FGD6).

This deficiency exacerbates the starting programs to be collapsed within a short period. The finding is also consistent with the earlier studies [20, 24, 50]. They concluded that AE trainers/facilitators who come from different segments are not well aware of (1) what the other subdivisions like IK contribute to the program; (2) how to use an interdisciplinary approach, which takes into consideration indigenous learning contents to be taught; and (3) how to teach adult learners in such contexts.

4.1.3. Lack of Stakeholders' Commitment. There are many governmental stakeholder offices, NGOs, community-based organizations, and religious institutions that engage in IK-based AE provisions. To make the educational process more effective the above-mentioned institutions must involve the local community. But some respondents pronounced that the role played by governmental institutions has been forgotten. They simply see AE as their secondary task and do not use it as a means of achieving their goals and objectives (C2, C4, and C5). This result is congruent with previous findings. Lack of ownership among collaborating sectors is one of the major barriers to the success of the AE program. Stakeholders in the collaboration do not have a clear sense of

ownership. As a result, they were not giving enough attention to envisioned results to be achieved through collaboration and felt accountable for the failure of the program [17, 24]. Additionally, the presence of weak communication between concerned makes the integration impossible due to their underprivileged commitment. Especially, informants from the NW zone education, culture, and tourism departments told that despite more tasks being expected, it is unable to do more due to capacity, institutional role confusion, and political unwillingness (E5 and FGD5).

More extremely, descending awareness of concerned office employees about the contribution of IK for achieving their intervention objective, sustainable education, and development are intentionally or unintentionally missed. Moreover, leaders' lack of political commitment contributes to the fall of IK inclusion into AE program provision. The government's low political commitment in supporting the IK integration is one of the major barriers to effective AE provision as indicated in the *National Adult Education Strategy* document [22]. Even though Ethiopia is a signatory country to many international commitments that promote the education of adults (e.g., *Education for All, Millennium Development Goal initiatives*) [19–21, 24, 28, 51], the presence of underprivileged coordination work, unrehearsed common working plan, and the availability of a high hierarchical structure limit the IK inclusion into AE.

4.1.4. Insufficiency of Educational Rules and Regulations of the Mainstream IK. The government of Ethiopia acknowledged the importance of a clear strategy and implementation guideline for the provision of AE. Many AE directives such as *education and training policy* in 1994, *education sector development programs (ESDPs)* rolling from 1998 to 2015, *national adult education strategy* in 2008, and others were endorsed at the national level [22, 52–58]. Respective regional and zonal education departments are expected to adopt these directives in line with their context. Although the above-mentioned directives considered context-based learning for adult learners, the inclusion of IK into AE was found at a substandard level. In practice, implementation guidelines lack a clear framework for the provision of indigenous based AE [19]. This is due to a lack of gratefulness and value regarding what IK might bring to educational practice and how IK might be enacted into learning materials.

4.2. Contextual Considerations in the Integration of IK into AE Learning Materials. Although the integration of IK into AE has been challenged with many barriers, fortunately, many opportunities are emerging which have a priceless value for the inclusion of IK into AE programs. The contextual considerations are forwarded thematically here as follows.

4.2.1. Enhancing the Growing Recognition of IKs by the Local Community and Leaders. Understanding and appreciating IK contents and contexts are essential for promoting sustainable education and development [2, 5]. This day all IK practices and experiences are not equally important in terms of human rights and development. However, they are the

pillars on which the identity of the people is based and should be respected. The starting point of developing IK is broadening our understanding of others' perspectives. To develop the capacity to do so, it is necessary to develop the ability to recognise and acknowledge other people's culture and how they created knowledge. Therefore, developing this capacity, cultivating people's IK, and striving for its implementation are the first steps in developing a democratic mindset.

The NW zone contains a huge amount of IK-based tangible and intangible heritages. More than eleven archaeological sites, traditional conflict resolution systems, knowledge of traditional medicine, traditional beauty management, knowledge of socioeconomic activities, and others are available. This makes the area top of the country, Ethiopia. This potential in turn serves as a foundation for any form of educational practice and thereby contributes to the area's development. Due to this fact concerned stakeholders including the government bodies start to consider IK as the benchmark for outreaching their task (E1). Those concerned have to believe in IK offers problem-solving approaches for local communities on development matters and IK can improve understanding of local conditions. Compared with the earlier, now, there is an improvement in recognizing and using IK systems as a benchmark of learning activities. The community has to develop a sense of ownership and readiness to take part in IK practice. Discussion with respondents (FGD1, FGD2, and FGD5) revealed that if we do more awareness-raising activities, our community is eager to do what we told them. For instance, people prefer to use local reconciliation systems (such as *Aba gar*, *Zeweld*, and *She lega*) to solve their disputes than legal justice systems. They assumed that it minimizes their resource and time for peaceful appeasement than the legal procedure, and it removes revenge between conflicting parties. The government also has an increasing belief in using the indigenization model of development in all sectors (for instance, the ten-year homegrown economic reform launched in 2020). This initiative calls stakeholders to have a positive value about IK and integrate it with their educational tasks and objectives.

4.2.2. Endorsement of Educational Directives and Initiatives That Support IK-Based AE. Although several educational policies, strategies, and programs (E.g., [22, 52–58]) endorsed, little emphasis has been given to the development and implementation of IK-based AE learning material. The incorporation of IK into formal and nonformal education has the potential to enable learners to gain further experiences and develop corresponding attitudes towards context-based learning [5]. It is a fact that IK systems and practices are dynamic; thereby, new knowledge is continuously added to the existing one. Therefore, those concerned do innovate and endorse guidelines that entertain adult learners' IK to suit the local state of affairs. Currently, different strategies and guidelines have been developed by governments aimed at mobilizing community support for the inclusion of IK into learning material development and handover to generation. For instance, the MoE endorsed *Educational Road Map* in 2019/20 focusing on revitalizing

all forms of educational provision within the local and global market contexts.

The dynamic nature of IK needs educational directives which support flexible learning materials development process that depend on considering learners' needs and local conditions. The more we can integrate IK systems into educational provision directives, the more our people will be able to use them for their work. Currently, there is a national movement led by MoE targeted at restructuring the provision of AE programs based on local contexts. This initiative drives and opens the door for the inclusion of local knowledge systems and practice in adult learning materials. In doing so, the AE learning materials and facilitation methodology should give enough concentration to IK originated from the history, social customs, local languages, values, and political organization of the society.

4.2.3. Utilization of Inclusive Facilitation Styles. Learning in indigenous communities is a process that involves all members based on holistic teaching. The utilization of inclusive educational facilitation requires the application of different learning styles based on the community context since members may have several learning experiences and backgrounds. Employing learner-centre facilitation methods in AE help learners to realise their educational goals and develop their critical-thinking and self-reflection skills. The indigenous ways of learning occur when educators interconnected various outlooks through spiritual, holistic, pragmatic, and transformative methods based on local conditions. Therefore, facilitators must create a sound learning environment to act as a driver for learners to advocate in their learning process. Different styles such as participant observation, imitation and simulation, use of narrative and storytelling, discussion, collaboration and cooperation, and others can be used as a learning approach that emphasises experience through inclusion.

4.2.4. Providing Continuous Professional Development for Educators. Discussion with experts and coordinators assured the presence of preservice and in-service training for AE facilitators/educators (such as health extension workers, agricultural extension workers, and other development workers) is aimed at enhancing their content and andragogical knowledge. However, little emphasis has been given to how learning is brought, i.e., the methodology (C2, C4, C5, and E1). This practice calls stakeholders to provide continuous professional development activities for those educators about ways of delivering adult learning based on local conditions. Therefore, when taking part in continuous professional development actions the following five things must be considered. These are the following: (1) AE facilitators have to be advocated about *culturally relevant instruction* that involves personalised teaching to the cultural needs of adult learners. (2) It is essential for empowering facilitators with *critical indigenous facilitation methods* that focuses on promoting instructional practices that honour IK through education systems to create positive social change. (3) The training also must emphasise *land-based pedagogy* aims to attach indigenous people to their natural living and social

relationships. (4) The centre of facilitators' training must also become *community-based pedagogy*. It allows community members to take part in the learning environment. (5) Lastly but not least, *culturally sustaining and revitalizing pedagogy* is necessary for facilitators to balance power relations within the learners.

4.2.5. Establishing Strong Partnerships and Increasing Stakeholders' Involvements. Acknowledgement of indigenous people's knowledge and practices has increased around the globe to promote sustainable education and development [5]. This effort requires stakeholders to work in partnership. The NW has to work closely with nearby universities and colleges, media owners, religious institutions, NGOs, and community-based organizations. Especially, Woldia University, centred in the zone, is highly engaging in conducting research aimed at exploring the nature and uses of IKs found in the area and building professionals' capacity. Additionally, the establishment of local responsible associations like travel associations and the increment of their number are serving as a great potential for discovering and promoting IK-based education. Likewise, the increasing advent of communication and social media platforms plays a remarkable role in promoting IK for others.

5. Discussion

The NW communities are characterised by having many pearls of wisdom that are relevant for their survival. Large numbers of the church books and sculptures hold untouchable knowledge such as traditional medicine preparation, astronomy study, peacebuilding and solidarity, seasons for farming, plants, and their use. Hence, connecting the cultural and historical identity of learners and the local environment where learning takes place is important [5, 8]. Furthermore, when developing AE learning materials, practitioners must be critical about the constitution of learning contents, selection of appropriate instructional methods and styles, the abilities of facilitators/educators concerning the learners' prior knowledge, and the learning environment.

However, this study finding revealed that IK-based adult learning material development and IK-oriented selection of pedagogies did not available and coexist into AE. There are three major forces limiting IKs' coexistence: first learning material developers' doubts in conveying learning topics in practice; second, poor development of learning resources and guidelines which assist educators in understanding appropriate learning styles; and third, barriers related to the lack of adequate professional training for facilitators. Due to these factors, the coexistence of IK remains only an idea. This practice demands training institutions' contribution building adult educators' facilitation knowledge, skills, attitude, and ability to develop and demonstrate IK-based local learning materials. Such action can support minimizing the observed professional gaps and enhance their capability to do for their learners and to know about pedagogical knowledge through educating them how to plan, define learning objectives, deliver instruction, test, and assess learning [20, 24, 59].

Furthermore, there are several initiatives and programs implemented to reduce the negative impacts of illiteracy, and AE is the major and widely used program in addressing illiteracy across the world since 1949 [24]. The same is true in Ethiopia. Many educational policy and strategies have been established (E.g., [22, 52–58, 60]). The existence of such policy directives is a very important but not sufficient condition to safeguard the operative integration of IK into AE provision. However, most of the mentioned directives contribute insufficiency of rules and regulations which helps to mainstream IK into AE programs. Likewise, the previous study conducted by Ajanaw and Hone [61] uncovered two major policy-related challenges such as (1) lack of a clear legal framework that states the role, functions, and legal status and (2) the absence of a policy direction and comprehensive laws that deal with the institutionalization and harmonization of IK systems and practice with in the country's legal system.

Despite the existence of rich indigenous practices related to knowledge creation and sharing, Yigzaw, Boudreau [62], Ajanaw and Hone [61] mentioned that modern Ethiopia faces three problems regarding its management of knowledge. First, documented knowledge of what enabled its earlier civilization has been lost. Second, the modern educational system has not been developed in a way that produces learners who can solve problems by using indigenous thoughts. Third, there is little effort put forward by educational institutions to foster knowledge management. Therefore, as stated in the literature documentation and dissemination of knowledge practices deserve special attention as they encompass knowledge, which may be especially valuable in times of crisis and adaptation to the changing conditions. This could help academics and development intermediaries as an entrance to authenticate and support IK with the state-of-the-art technology to cope with the severity of nature [1]. The government also must take different measures to facilitate collaboration among stakeholders [24, 28] to document IK and thereby enhance the implementation of the indigenous-based AE programs.

Currently due to the establishment of the *home grow economy roadmap* in 2020 by the Ethiopian government, several AE policies and strategies that support IK are being initiated. This, in turn, enhances the effective inclusion of IK not only into the AE programs but also formal education settings. This incorporation is increasing, and thereby, it demands capable AE learning material developers and facilitators. All concerned should empower and train them at least through the following ways. These are (a) equipping with the key competencies needed to perform their current jobs; (b) helping facilitators in the acquisition of new skills, knowledge, and attitudes through orientation training; and (c) updating/upgrading their possible future jobs.

Availability of strong partnership and increasing stakeholders' involvements in IK-based AE programs provision is also must be considered. Hence, creating strong partnerships among the governmental, nongovernmental, and community-based organizations is invaluable to get their support. The zone *government* could contribute to providing educational support and strategies, opening up settings for

AE literacy centres and postliteracy institutions, and integrating AE programs run by regions with the different development organizations. On another side, different NGOs may support the implementation of the AE program through different ways: (a) promoting indigenous based literacy by creating reading and learning opportunities to help learners realise their full potential; (b) supporting the AE centres in organizing and sponsoring seminars, workshops, and training about IK and AE; (c) participating in implementation, monitoring, and evaluation the program. Moreover, *local community-based organizations and private sector* contribution are considered a remarkable base for the foundation of AE that adequately deliberate IK in its provision. Additionally, they can control the affairs of functional adult literacy programs such as planning, policy analysis, learning materials, curriculum examination reform, facilitation practice and employed styles, monitoring, and evaluation.

As suggested by Anthony-Stevens et al. [63], Assefa [27], Samuel and Abebaw [24], the following issues can be considered enablers for IK inclusion. These are the following: (1) Available local institutions and social gatherings may contribute to the development and implementation of indigenous based AE program provision. (2) Increasing attention is given to educational institutions to develop culturally responsive education pedagogical materials and professional development resources. (3) Endorsement of strategies and guidelines assist educators in understanding appropriate collaboration with local communities, so they can appropriately consider the perspectives of IK while they are teaching. (4) The presence of educational foundations (universities, colleges) nearby helps educators to prepare and apply culturally responsive pedagogy in ways that account for language, community values, and sociohistorical context. (6) There is establishment of partnership among government, NGOs, and the local community to codevelop basic knowledge and course work that values the cultural resources (language, history, IK) of local communities.

6. Conclusion

The integration of IK into educational programs especially in nonformal AE has been passed with many ups and downs. This practice limits the adequate inclusion of IK as a major learning base when developing the AE program learning materials and facilitation methods due to barriers. Barriers are related to restraints of bringing previous wisdom and knowledge practices into current learning materials; lack of expertise to integrate IK into learning materials; lack of stakeholders' commitment; and insufficiency of rules and regulations that mainstream IK in AE. As a result, the inclusion was found at a substandard level due to a lack of gratefulness and value regarding what IK might bring to educational practice and how IK might be enacted into learning materials. Although the integration of IK into AE has been challenged with many barriers, fortunately, many opportunities which need to be considered are emerging. Due to this fact, concerned stakeholders including the government bodies must start to consider IK as the benchmark for outreaching their tasks. Context-based working strategies

and guidelines have to be developed by governments aimed at mobilizing community support for IK development and handover to generations through revitalizing all forms of educational provision within the local and global market context. Hence, establishing strong partnerships and increasing stakeholders' involvement in IK provision must be considered to effectively integrate IK not only into AE program but also promote to others.

Data Availability

Data are available upon reasonable request.

Conflicts of Interest

The authors disclosed there is no any possible conflict of interest in this manuscript.

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