

Evaluation of the Role of Adult Education in Promoting Food Security in Nigeria

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Abstract

To overcome the myriads of challenges militating against food security in Nigeria requires proactive efforts to empower individuals with the necessary knowledge, information and skills needed for improved productivity and food security. Since adults are the initiators of most agricultural activities, functionally relevant knowledge, information and skills must be provided to them. To this end, it is imperative to maximise the potentials of adult education in engendering continuous learning opportunities for promotion of food security in Nigeria. As a result, this paper x-rayed an overview of food security in Nigeria, examined the concept and relevance of adult education to achieving food security. It further highlighted strategies for integrating adult education into food security programmes and challenges associated with adult education in addressing food security in Nigeria before it ends with recommendations on how to maximise the potentials of adult education to achieve food security in Nigeria. Among the recommendations put forward are the needs for government to prioritise funding for adult education programmes and integrate them into national food security and agricultural strategies to ensure alignment and sustainability. Also, the government should also establish community-based learning centers tailored to regional agricultural and nutritional needs, fostering local ownership and enhancing participation.

Keywords: Adult education, agriculture, food security, knowledge and skills

Introduction

The key to socio-economic development is transfer of learning. This is a situation in which people apply knowledge, information and skills acquired in a new situation or context. The need to continuously empower individuals with the necessary knowledge, information and skills to effect changes within their communities can be achieved by maximising the potentials of adult education. This is because adult education is geared towards improved performance, which will in turn bring about achievement of higher productivity and output levels. It also contributes to improvement in health and education, protection of the environment, development of livelihood activities or generation of employment. It can be used to improve child care, care for elderly, inter-personal relationships and to overcome isolation and temptation as it is commonly said that an idle hand is the devil's workshop (Wordu & Egumah, 2019).

Adult education is an instrument for mobilization to enable people to participate in development programmes. Adult education can assist people through learning to change their habits, attitude, towards a desirable direction, such as adoption of new methods of farming or continuous engagement in learning so as not to relapse to illiteracy (Wordu & Hanachor 2019). Adult education plays a vital role in addressing food security challenges in Nigeria. It empowers individuals with knowledge, skills, and resources to improve agricultural productivity, enhance nutritional awareness, and foster sustainable practices. With a

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significant portion of the population reliant on agriculture for livelihood, integrating adult education into food security initiatives can equip communities with innovative solutions to combat hunger and malnutrition.

Overview of Food Security in Nigeria: Challenges and Opportunities

Food security in Nigeria is a pressing concern, shaped by interaction of demographic, environmental, and infrastructural factors. The country's population, which exceeds 200 million, continues to grow rapidly, creating an increasing demand for food that surpasses production rates (FAO, 2022). This population growth intensifies competition for agricultural resources, exacerbating food scarcity in many regions. Additionally, the effects of climate change, such as erratic rainfall patterns, droughts, and flooding, disrupt agricultural activities and significantly reduce crop yields (IPCC, 2021). These challenges are further compounded by limited access to agricultural technology and poor government support for smallholder farmers (World Bank, 2021). Nigeria's agricultural sector also suffers from underdeveloped infrastructure, which impedes the efficient storage, processing, and transportation of food. It is estimated that over 40% of food produced in Nigeria is wasted due to inadequate storage facilities and poor road networks (IFPRI, 2020). Furthermore, the reliance on rain-fed agriculture increases vulnerability to climate variability, leaving millions of households' food-insecure during periods of drought or excessive rainfall (WFP, 2020). The lack of institutional frameworks to promote efficient land use and equitable access to farming inputs further aggravates the situation.

Despite these challenges, Nigeria possesses enormous potential to address food insecurity. The country has vast arable land, with only about 40% currently under cultivation (Nigerian Bureau of Statistics, 2021). This provides an opportunity for expansion, especially if complemented by sustainable farming practices. Additionally, Nigeria's youthful population represents a dynamic workforce that, if adequately trained and supported, could drive agricultural innovation and productivity (FAO, 2022). The government's on-going efforts to diversify the economy through the agricultural sector, coupled with private-sector investments, could significantly enhance food security outcomes. Innovative approaches, such as adopting climate-smart agriculture, integrating technology into farming, and promoting agribusiness, hold promise for achieving sustainable food security (UNDP, 2021). Collaboration between local communities, non-governmental organizations, and international agencies could also strengthen resilience against food insecurity. Policies targeting smallholder farmers, particularly in rural areas, would ensure equitable access to resources and enhance the agricultural value chain.

Concept of Adult Education and Its Relevance to Food Security in Nigeria

Adult education is recognized as a transformative tool for equipping individuals with the knowledge and skills necessary to address critical societal challenges, including food security. Defined as the continuous process of acquiring knowledge and competencies, adult education extends beyond basic literacy to encompass vocational training, health education, and community empowerment initiatives (UNESCO, 2021). Its role in food security lies in empowering individuals to adopt sustainable practices in food production and consumption, thereby fostering self-reliance and resilience within communities (FAO, 2022). The introduction of tailored agricultural programmes through adult education equips farmers with modern farming techniques, including precision agriculture and effective pest management strategies (Brookfield, 2020). These programmes also emphasize soil health, irrigation methods, and crop diversification, which are critical for improving agricultural productivity. For instance, training programmes in sustainable practices such as agroforestry and organic farming have proven effective in increasing crop yields and conserving natural resources (IPCC, 2021). Such initiatives enable farmers to mitigate risks associated with climate change and environmental degradation.

Furthermore, adult education fosters a culture of innovation and adaptability by encouraging critical thinking and collaborative problem-solving (UNESCO, 2021). In the face of challenges such as market access and fluctuating commodity prices, education empowers individuals to explore alternative income-generating activities, such as value-added processing and cooperative farming (IFPRI, 2020). Educational programmes that specifically target women and marginalized groups enhance inclusivity and ensure that the benefits of food security interventions are widely distributed.

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Promoting adult education also aligns with global goals, such as the United Nations' Sustainable Development Goal 2, which aims to end hunger and achieve food security by 2030 (UNDP, 2021). This makes adult education a cornerstone for achieving long-term developmental objectives in Nigeria, particularly in regions with high levels of poverty and food insecurity.

Strategies for Integrating Adult Education into Food Security Programmes

Integrating adult education into food security programmes requires a multi-pronged approach that incorporates local knowledge and aligns with national development priorities. Establishing community-based learning centres in rural areas offers a practical solution for delivering agricultural education and skill development. These centres can provide training on modern farming techniques, resource management, and entrepreneurial skills, empowering participants to optimize their agricultural activities (FAO, 2022). Partnerships with local governments and non-governmental organizations (NGOs) can ensure the sustainability of these centres and make education more accessible.

The use of technology in adult education has emerged as a game-changer in bridging the knowledge gap. Mobile applications, online courses, and digital platforms allow farmers to access real-time information on weather forecasts, market prices, and pest control strategies (IFPRI, 2020). For instance, apps tailored to local languages and contexts have been shown to improve adoption rates and agricultural productivity. Leveraging technology not only enhances the reach of educational programmes but also promotes efficiency in resource utilization and decision-making. Encouraging cooperative learning through farmer groups is another effective strategy for integrating adult education into food security initiatives. These groups serve as platforms for sharing experiences, exchanging ideas, and solving common challenges collectively. Additionally, farmer cooperatives can provide access to financial resources, agricultural inputs, and market linkages, which are essential for scaling production and achieving food security (World Bank, 2021). Adult education plays a pivotal role in nurturing leadership and management skills within these cooperatives, ensuring their long-term success.

Government support and policy alignment are crucial for the effective integration of adult education into food security programmes. Policies that promote vocational training and subsidize educational initiatives can encourage participation among underserved populations. Moreover, aligning these programmes with broader agricultural strategies ensures a cohesive approach to addressing food security challenges in Nigeria (UNESCO, 2021).

Role of Adult Education in Enhancing Agricultural Skills

Adult education is instrumental in equipping individuals with advanced agricultural skills that contribute to increased food production. Training programmes focused on modern techniques such as crop rotation, irrigation systems, and integrated pest management enable farmers to maximize yields and minimize losses (Brookfield, 2020). These skills are particularly valuable in Nigeria, where traditional farming methods often fail to meet the demands of a growing population. Adult education addresses inefficiencies in the agricultural sector and promotes sustainable development by introducing innovative practices. The adoption of modern agricultural equipment is another area where adult education has a significant impact. Farmers trained in the use of tractors, mechanized harvesters, and other tools transition from subsistence to commercial farming, enhancing productivity and profitability (FAO, 2022). Educational programmes that include business management components further empower farmers to navigate market dynamics, negotiate prices, and plan for future investments. This comprehensive approach not only improves food security but also fosters economic growth in rural communities.

Adult education also promotes climate-smart agriculture, a necessity in the face of climate change. Training programmes teach farmers techniques such as conservation tillage, agroforestry, and water harvesting, which mitigate the effects of climate variability and enhance resilience (IPCC, 2021). These practices ensure the sustainability of food systems and protect ecosystems, aligning with global environmental goals. Additionally, integrating indigenous knowledge with modern methods through adult education enriches agricultural practices, making them more adaptable to local contexts. Collaboration between educational institutions, agricultural agencies, and local communities is essential for enhancing the reach and impact of adult education in agriculture. Such partnerships can design programmes tailored to the specific needs of different regions, ensuring relevance and effectiveness (UNDP, 2021). Through these initiatives, adult education continues to play a transformative role in addressing food security challenges in Nigeria.

Improving Nutrition and Health Awareness through Adult Education

Adult education is a vital tool for improving nutrition and health awareness, crucial components of food security. Educational programmes targeted at adults often focus on imparting knowledge about balanced diets, proper food handling, and hygiene practices, reducing the prevalence of malnutrition and foodborne illnesses (FAO, 2022). These programmes are particularly impactful in rural areas, where limited access to healthcare and nutrition information exacerbates health disparities. Workshops and community outreach initiatives equip individuals with practical skills for identifying nutrient-rich local foods and preparing meals that preserve their nutritional value.

Nutrition-focused adult education also addresses the unique needs of vulnerable groups, such as pregnant women and young children. These programmes contribute to better maternal and child health outcomes, by educating mothers about breastfeeding, complementary feeding, and essential nutrients required at various life stages (UNICEF, 2020). Research shows that communities with higher levels of nutritional literacy exhibit lower rates of stunting and wasting among children, emphasizing the importance of sustained education efforts (IFPRI, 2020).

Moreover, adult education fosters a deeper understanding of the link between diet and chronic diseases. Participants learn to make informed dietary choices that prevent conditions such as obesity, diabetes, and hypertension, which are increasingly prevalent in Nigeria (World Bank, 2021). Such initiatives not only improve individual well-being but also reduce the economic burden of healthcare, allowing households to allocate more resources to food and other necessities. Collaborations between government agencies, NGOs, and local educators enhance the effectiveness of nutrition education programmes. Tailoring content to cultural contexts and using community leaders as facilitators ensure greater participation and impact. Digital tools, such as mobile apps and online resources, can further expand access to nutritional education, enabling even remote communities to benefit from these life-changing programmes (UNESCO, 2021).

Empowering Rural Communities through Literacy and Skill Development

Literacy and skill development through adult education are critical for empowering rural communities and enhancing food security. Basic literacy programmes enable individuals to read and interpret agricultural information, such as weather forecasts, crop care guides, and government policies (FAO, 2022). Access to this information improves decision-making and resource management, fostering resilience in the face of agricultural challenges. Numeracy skills, often integrated into literacy programmes, help farmers budget effectively and track their expenses, ensuring better financial stability. Skill development initiatives tailored to rural contexts equip individuals with practical knowledge in areas such as crop diversification, agroforestry, and animal husbandry (IPCC, 2021). These programmes emphasize sustainable practices like water conservation and soil management, which are essential for combating environmental degradation. Farmers improve productivity while preserving natural resources, creating a balance between food security and ecological sustainability by adopting these techniques.

Empowering women through literacy and skill development is particularly impactful in rural settings. Women, who are often the primary caregivers and food providers, gain the confidence and capacity to contribute more effectively to household food security (UNICEF, 2020). Programmes that target women address gender inequalities and ensure that they have equal access to resources, training, and decision-making opportunities, fostering inclusive community development. Partnerships with local organizations and international donors strengthen the delivery of literacy and skill development programmes. Leveraging community-based approaches ensures that the initiatives are culturally relevant and widely accepted. Additionally, incorporating technology into these programmes, such as e-learning platforms and agricultural apps, enhances their reach and accessibility, benefiting even the most remote communities (UNESCO, 2021).

Challenges Facing Adult Education in Addressing Food Security

Despite its transformative potential, adult education faces significant obstacles in addressing food security in Nigeria. Inadequate funding and resources hinder the establishment and maintenance of effective adult education programmes, particularly in rural areas (World Bank, 2021). Many initiatives rely on short-term donor funding, limiting their sustainability

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and long-term impact. Additionally, the scarcity of qualified educators trained in agricultural and nutritional topics further reduces the effectiveness of these programmes (UNESCO, 2021). Cultural and societal barriers also pose challenges to adult education, particularly for women. Traditional gender roles and societal norms often restrict women's participation in educational programmes, despite their critical role in household food security (UNICEF, 2020). Furthermore, illiteracy among adult populations in rural areas remains high, making it difficult to implement educational initiatives that require basic reading and writing skills (FAO, 2022).

The lack of integration between adult education policies and broader agricultural strategies exacerbates these challenges. Without cohesive planning, efforts to improve food security through education remain fragmented and fail to address systemic issues. For example, programmes may focus on agricultural skills without incorporating nutrition education, resulting in missed opportunities to improve overall well-being (IFPRI, 2020). Coordination among stakeholders, including government agencies, NGOs, and local communities, is essential to overcome this fragmentation. Infrastructure deficits, such as poor access to educational facilities and technology, further limit the reach of adult education programmes. Many rural areas lack the basic infrastructure needed to support learning activities, including classrooms, teaching materials, and internet connectivity (Brookfield, 2020). Investments in infrastructure and innovative delivery methods, such as mobile learning units and digital platforms, are necessary to bridge these gaps and enhance the impact of adult education initiatives.

Strengthening the Link between Adult Education and Food Security

Strengthening the connection between adult education and food security requires a holistic approach that addresses the diverse needs of communities. Government policies should prioritize adult education as a key component of food security strategies, ensuring adequate funding and infrastructure support (FAO, 2022). These policies must align with national agricultural goals, fostering synergy between education and food production systems. For example, subsidies for vocational training and farmer education programmes can encourage participation and enhance agricultural outcomes.

Collaboration among stakeholders is critical to creating impactful adult education programmes. Partnerships between educational institutions, agricultural organizations, and local community groups ensure that programmes are tailored to specific regional needs (UNESCO, 2021). Community-driven initiatives, supported by government and NGO funding, promote ownership and sustainability, encouraging active participation from beneficiaries. Additionally, incorporating local knowledge into program design enhances relevance and cultural acceptance. The integration of technology into adult education can significantly strengthen its role in food security. Mobile apps, online courses, and interactive platforms provide farmers with access to real-time agricultural information, enabling them to make informed decisions (IFPRI, 2020). Digital tools also bridge the gap between urban and rural areas, ensuring equitable access to education and resources. Training programmes that incorporate both traditional and digital learning methods enhance inclusivity and reach.

Conclusion

Adult education plays a transformative role in addressing food security challenges in Nigeria. It equips individuals with critical knowledge and skills in agriculture, nutrition, and resource management, adult education empowers communities to overcome barriers to food production, improve nutritional outcomes, and enhance resilience to climate change. Despite its potential, adult education faces challenges such as inadequate funding, cultural barriers, and infrastructure deficits. Strengthening the link between adult education and food security requires cohesive strategies that align with national development priorities and leverage technology for broader impact.

Recommendations

To promote food security in Nigeria, it was recommended that:

1. The government should prioritize funding for adult education programmes and integrate them into national food security and agricultural strategies to ensure alignment and sustainability.
2. The government should also establish community-based learning centres tailored to regional agricultural and nutritional needs, fostering local ownership and enhancing participation.

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3. Government in collaboration with agricultural extension workers should develop and promote digital tools and mobile applications for agricultural education, ensuring accessibility for rural communities to bridge the knowledge gap.
4. The government should further design inclusive programmes that target marginalized groups, particularly women, to ensure equitable access to education and resources, while addressing cultural norms that hinder participation

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