



Assessment of the Economic Contributions of the NCE Students' Farm Practical Training Programme to Agricultural Production in Ilorin, Kwara State, Nigeria

*Ogundele, O.O., & Ojo, A.

Department of Agricultural Science Education, Kwara State College of Education, Ilorin, Nigeria

*Corresponding author email: mosakin2002@gmail.com

Abstract

One essential skill-building programme for agricultural science students is farm practical training, which is meant to help them become knowledgeable and independent. This study, therefore, aims to assess the economic impact of students' farm practical training programmes on agricultural production in Kwara State, Nigeria. Employing an Expo Facto design, the research takes a comprehensive approach by examining both the direct and indirect contributions of these programmes to the local economy. A random sample comprising 80 NCE students was drawn from the population of students at Kwara State College of Education, Ilorin, Kwara State, Nigeria. Data were subsequently gathered using a questionnaire titled "Economic Contribution of NCE Students Farm Practical Training Programme to Agricultural Production, (ECSFPTPAP) and subjected to descriptive statistics of mean rating. The study showed a high level of farm practical training among NCE students in the Kwara State College of Education, Ilorin. Furthermore, this study established a significant economic contribution of NCE students' farm practical training programs to agricultural production. These results indicate a positive impact of integrating farm practical training into the NCE curriculum on agricultural output within Kwara State. Based on these findings, it is recommended that Kwara State College of Education, Ilorin, prioritise the provision of adequate facilities to enable students to translate theoretical knowledge into practical farming skills. Creating a supportive environment for agricultural practice would, in turn, further enhance the economic benefits derived from farm practical training, contributing to increased agricultural production in Kwara State, Nigeria.

Keywords: Farm Practical Training, Agricultural Production, Economic Contribution, NCE Students.

Introduction

Agriculture is a profession that emphasises practical skills. Recognising this, and to equip Agricultural science students with the necessary abilities to practice the profession after graduation, a Farm Practical Training (FPT) component was incorporated into the NCE program for Agriculture in Nigeria. The farm practical training programme is an integral part of the curriculum for agricultural students in tertiary institutions across the country. This initiative centres on experiential learning by bridging classroom-based theoretical foundations with applied agricultural practices through structured farm-based activities, while the specific implementation of the farm practical training programme may vary among different tertiary institutions, the overall aims, objectives, and activities of the program remain largely consistent.

The perspectives of Saliu et al. (2016) and Reece and Walker (2016) are validated by frameworks emphasising practical farming as a catalyst for skill development and capacity-building. However, success hinges on structured training programs, resource accessibility, and policy-driven support to transform theoretical knowledge into sustainable entrepreneurial ventures. Also, Reece and Walker (2016) emphasise that, observation and experiential learning are fundamental for students in the field of agriculture. Hence, Agricultural science education students are required to engage in farm practical training to apply the theories they have learned in the classroom and develop into competent professionals when they enter the field. According to Ayanda et al. (2013), the integration of farm practical training into agricultural curricula has effectively tackled various issues, including the production of graduates lacking skills and inexperienced labourers. By acquiring practical skills, graduates' agricultural competencies have been significantly expanded.

Furthermore, the introduction of the farm practical training programme stems from recognising the pivotal role that comprehensive training of the workforce engaged in agricultural production can play in transforming the agricultural sector. Another noteworthy impact of incorporating farm practical training into Agricultural science education is its potential contribution to the economic development of a nation. By equipping students who have studied Agricultural science at the tertiary level with practical skills, they can make positive contributions to the economy of their local communities, as well as the overall national economy.

In Nigeria, Farm Practical Training (FPT) programmes are increasingly embedded in degree and diploma curricula at higher education institutions, serving as a critical bridge between classroom theory and real-world agricultural practices (Kogi State University, 2020). By enabling students to translate theoretical knowledge into actionable skills, these programmes align with experiential learning frameworks that emphasise hands-on application (Rodzalan & Saat, 2012). Tertiary institutions, tasked with cultivating highly skilled professionals, play a pivotal role in advancing national economic objectives through workforce development across agricultural sectors (Mojarradi & Karamidehkordi, 2016). Farm practical training is a crucial and obligatory component for obtaining an Agricultural Science Education (NCE) certificate, serving the essential purpose of going beyond classroom theory. Its primary objective is to enable students to apply the theoretical knowledge acquired within the confines of the classroom. Unfortunately, it is regrettable that many students who undergo farm practical training at the NCE level do so without reaping economic benefits, as it is often seen solely as an academic requirement. No doubt, agriculture is a vital sector in Nigeria, employs a significant portion of the population and contributes a substantial share to the country's Gross Domestic Product (GDP). The majority of agricultural output is generated from rural peasant farmers, and these sectors played a crucial part in the nation's economy.

Despite Agricultural Science students undergoing farm practical training as part of their coursework in tertiary institutions, it remains unclear whether this training programme makes a significant economic contribution to both the students and the overall national economy. This study aims to bridge the knowledge gap in understanding the economic effectiveness of Farm Practical Training (FPT) programs for NCE students by evaluating their impact on agricultural productivity in Kwara State. Building on insights from Kwara State University's FPT case study, which emphasised skill acquisition and attitudinal changes among students, this research seeks to determine whether these programs lead to tangible economic benefits for both trainees and the wider agricultural sector.

Objectives of the study

The specific objectives of the study were to:

- a. Assess the effectiveness of the NCE students' farm practical training programme on agricultural production in Kwara State
- b. Assess the economic contribution of the NCE students' farm practical training programme on agricultural productivity in Kwara State

Research Questions

The following research questions were raised to guide the study:

1. What is the effectiveness of the NCE students' farm practical training programme in Kwara State?
2. What is the economic contribution of the NCE students' farm practical training programme to Agricultural production?

Methodology

This study utilised an ex post facto research design, selected for its association with the investigation of pre-existing variables that cannot be experimentally manipulated. This approach allows for the systematic analysis of relationships between agricultural training outcomes and factors that have already occurred, such as students' participation in farm practical programmes or institutional policies. The research instrument was validated by two experts from the Agricultural Science Education Department of the college to ensure content validity and alignment with the study's objectives. The target populations for this study were all NCE II and III students of Kwara State College of Education, Ilorin. A simple random sampling technique was used to select 80 NCE students from the department, 40 from NCE II and 40 from NCE III students were selected.

The research instrument was structured into two sections: Section A and Section B. Section A elicit data on the farm practical training available in the college. While Section B elicit data on the economic contribution of NCE

students' farm practical training programme on Agriculture production. The items were rated using a modified four-point Likert scale (Strongly Agree, Agree, Disagree, and Strongly Disagree). The data collected from respondents underwent descriptive statistical analysis, which involved calculating frequencies, percentages, and means to summarise and interpret the responses. Decisions as to the levels of practical training and economic contribution of NCE students are based on the benchmark of 2.50. This was achieved by finding the average of the numerical points for the Grand mean score of 2.50 and above means that the level of NCE students was high, while a grand mean score below 2.50 means that the level of NCE students was low, respectively.

Results

Research Question 1: What is the effectiveness of the NCE students' farm practical training programme in Kwara State?

To answer this research question, responses gathered on the NCE students' farm practical training programme in Kwara State College of Education, Ilorin, the responses were coded and analysed using descriptive statistics, with the results presented in Table 1.

Table 1: Analysis of the effectiveness of NCE students' farm practical training programme in Kwara State

S/N	I do participate in farm practical training Programmes such as	Mean
1	Amaranthus spinach	2.83
2	Okro	2.62
3	Celosia	2.50
4	Ewedu (Jute mallow)	2.74
5	Maize	2.62
6	Guinea corn	2.51
7	Cassava	2.68
8	Layers	2.59
9	Broiler	2.20
10	Cockerel	2.44
11	Rabbitry	2.77
12	Swine(Piggery)	2.38
Grand Mean		2.57

Keys: 2.50 – 4.00 = High Level;

0.01 – 2.49 = Low Level

Table 1 shows the effectiveness of NCE students' farm practical training among the agricultural science students of Kwara State College of Education, Ilorin. The observed grand mean of 2.57 fell within the "High Level" benchmark, indicating that the NCE students' farm practical training programme at Kwara State College of Education, Ilorin, demonstrated a high level of effectiveness in achieving the objectives.

Research Question 2: What is the economic contribution of NCE students' farm practical training programme to Agricultural production?

To answer this research question, responses gathered on the economic contribution of NCE students' farm practical training programme to Agricultural production were coded and analysed using descriptive statistics, with the results presented in Table 2.

Table 2: Analysis of the economic contribution of NCE students' farm practical training programme to Agricultural production

S/N		Mean
1	I score higher marks in the farm practical training than theory aspects	2.76
2	I have more knowledge about farming than before	2.85
3	Farm practical training has helped me develop an interest in farming	2.58
4	The time I spend doing practical farming has raised my interest in farming	2.71
5	I am equipped to establish my farm in the near future	2.88
6	NCE student practical training has increased farm produce for the college community to buy	2.89
7	Farm practical produce has increased the department's income	2.78
8	Farm practical training has increased my income as a student	3.02
9	Farm's practical produce is sold to people outside the college	2.76
10	The farm practical training products are enjoyed by the lecturers in the department only	2.83
11	The farm practical training produces are consumed by the students only	2.79
Grand Mean		2.81

Keys: 2.81 – 4.00 = High Level;

0.01- 2.49 = Low Level

Table 2 shows the economic contribution of the NCE students' farm practical training programme to Agricultural production. The grand mean of 2.81 with the "High Level" benchmark, confirming that the NCE students' farm practical training programme at Kwara State College of Education, Ilorin, achieved a high level of effectiveness in its implementations and outcomes

Discussion

The study evaluated the economic contribution of NCE students' farm practical training programme to Agricultural production in Kwara State, Nigeria. The finding revealed that the programme demonstrated significant potential to enhance agricultural productivity through skills acquisition and practical exposure, though skill acquisition and practical exposure, through challenges such as resource limitations and inadequate institutional support, may hinder the full economic impact among the NCE students in Kwara State College of Education, Ilorin.

The mean for most of the farm practical training programmes was high. This shows that the farm practical training programme complements their knowledge of the theories learned in the classroom. This result corroborates the earlier findings of Ayanda et al. (2013), who conducted a study on a farm practical training programme for agricultural students: A case study of pioneer students, Kwara State University, Malete. The result of the study revealed that students' orientation about FPT was inadequate, but students' farming skills acquisition was tremendously improved, and students developed a positive attitude towards agriculture as a means of livelihood. This could be the reason why NCE students' farm practical training is high in the Kwara State College of Education, Ilorin, Nigeria.

Another finding of this study revealed that the economic contribution of the NCE student farm practical training programme to Agricultural production in Kwara State was high. This shows that farm practical training programmes contributed immensely to the Agricultural production in Kwara State, aside from the knowledge gained from the farm practical training of NCE students. The explanation of the high economic contribution of the NCE students' farm practical training programme could be ascribed to the benefit derived by the students, the department and the college community.

From the result, it was revealed that farm practical training increased the department income by mean of 2.78, while farm practical training has increased students' income with a mean of 3.02, which shows that farm practical training has an economic contribution to students, the department and the school community. This finding aligns with the earlier finding of Odetola and Etumun (2022), who conducted a study on the contribution of Agriculture to Economic Growth in Nigeria, and the research indicates that crop production remains the primary driver of agricultural sector growth, with sector-wide progress heavily reliant on advancements in this subsector. Consequently, enhancing farm practical training in colleges of education by addressing systemic challenges and ensuring robust institutional support could yield substantial economic benefits for society, particularly in regions like Kwara State, where agricultural productivity is critical to sustainable development.

Conclusion

Based on the findings of this study farm practical training programme for NCE students in Kwara State College of Education, Ilorin was high, because the respondents had high scores in the nine farm practical training programmes used in the study. It was further concluded that the economic contribution of the farm practical training programme of NCE students was high, because it shows that farm practical training added economic value to the NCE students and the college community in general.

Recommendations

Based on the findings and conclusion of the study, it is recommended that:

1. The Kwara State College of Education, Ilorin, should provide adequate facilities for the students to practice what was learned in the class. This is very important, considering the fact that farm practical training can only be effective and efficient when facilities for the practice are available, which will enable NCE students to develop interest and be committed to carrying out the farm practical training programme.
2. More so, Agricultural science lecturers in the colleges of education should be ready to expose their students to various farm practical training programmes, as this will broaden their knowledge and encourage them to practice what they have learned while in school.
3. Furthermore, farm practical training was found to have a high economic contribution to agricultural production in Kwara State. Therefore, it is recommended that a conducive environment for farming should be made available by the College Management and the Department of Agricultural Sciences in order to allow students to embark on the farm practical training activities, so as to further increase the economic contribution of farm practical training to the agriculture production in Kwara State.

References

- Ayanda, I. F., Yusuf, O. J., & Salawu, O. L. (2013). Farm practical training for agricultural students: Case study of pioneer students, Kwara State University, Malete, Nigeria. *Journal of Sustainable Development in Africa*, 15(8), 25–41.
- Kogi State University. (2020). *Manual report guide for students' industrial work experience scheme (SIWES)*. Kogi State University Printing Press.
- Mojarradi, G., & Karamidehkordi, E. (2016). Factors influencing practical training quality in Iranian agricultural higher education. *Journal of Higher Education Policy and Management*, 38(2), 183–195.
- Odetola, T., & Etumun, C. Z. (2022). Contribution of agriculture to economic growth in Nigeria. Retrieved from [https://www.researchgate.net/publication/337305953] (https://www.researchgate.net/publication/337305953)
- Reece, I., & Walker, S. (2016). *Teaching, training and learning: A practical guide*. Business Education Publishers Ltd.
- Rodzalan, S. A., & Saat, M. M. (2012). The effects of industrial training on students' generic skills development. *Procedia - Social and Behavioral Sciences*, 56, 357–368.
- Saliu, O. J., Onuche, U., & Abubakar, H. (2016). Perception of Kogi State University agricultural students on farming as a career. *International Journal of Sustainable Agricultural Research*.