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Effects of Children Involvement in Agriculture on Their Education in Southwest Nigeria

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Abstract: Child welfare proponents consider early engagement in agricultural labour as one of the most challenging activities for children's involvement as it exposes them to hazards that may hamper their development, which limits their prospects in life. The study therefore determined effects of children's involvement in agriculture on their education in south western Nigeria. Multistage sampling technique was used to sample 540 children aged 5-14 years from fifty percent of the six south west states (Ogun, Osun and Ondo) using a structured interview schedule. Data were analysed using Pearson Product Moment Correlation at the 0.05 level of significance. Study findings revealed majority of children were males (76.5%) with mean age of 12years involved in harvesting (86.9%), weeding (82.4%) and planting (74.6%). Mean of 7 h was spent in agricultural activities weekly. There was high enrollment (98.7%) in formal educational institutions. All had opportunity to study at home, 46.9% went late to school and 25.8% were absent from school at least once monthly. Children educational activities were negatively and significantly correlated with their level of involvement in agriculture: study time ($r = -0.44$, $p<0.05$), punctuality ($r = -0.32$, $p<0.05$) and absenteeism ($r = -0.44$, $p<0.05$). It was thus recommended that farmers should be enlightened to be concerned on how to involve children in agriculture on a sustainable basis.

Key words: Children, agriculture, punctuality in school, absenteeism in school, study time

INTRODUCTION

Children are involved in agricultural activities throughout the world. According to the ILO's Bureau of Statistics[1], the developing countries alone, harbour at least 120 million children between the ages of 5 and 14 who are fully at work and more than twice as many (or about 250 million) if those for whom work is a secondary activity are included. Of these, 61% are found in Asia, 32% in Africa and 7% in Latin America. Although Asia has the largest number of child workers, Africa has the highest incidence at around 40% of children between 5 and 14 years old. Occupational and safety experts have however classified agriculture as one of the most dangerous occupations in which children are engaged[2]. Though child welfare proponents are faced with what exactly constitute indicators of child well being, many do not dispute the fact that their education is a crucial factor that must not be toyed with[3-5] .

Education according to Awopegba[6], also plays a central role in the development process, pervading every aspect of the process of nation building. It is a significant factor in manpower development because it involves making a deliberate effort to modify the character and improve the quality of the human factor in a manner that the general development objectives of the nation can be realized. In Nigeria basic education is free and this refers to early childhood, pre-primary education, primary education and the first three years of secondary education. It also includes basic and functional literacy for out of school children, youths and adults. It consists of the acquisition of the skills of reading, writing and arithmetic as well as functional knowledge and generative skill determined by the local environments.

Further more, Chauhan[7] asserts that the age 6-12 year period constitute the time when there is eager absorption of information and ready accumulation of ideas. At this stage, learning becomes more efficient and there is increasing capacity of the child for logical reasoning. It is therefore necessary to examine various aspects of children's education to uncover any impediment to their future development as about 45% of

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the Nigerian populations are children[8]. Education of children in this study deals with enrollment in formal educational institutions and issues of regular attendance, punctuality, opportunity to study after school hours and academic performance. Based on the fact that agriculture is the major industry of the people of the south west Nigeria and especially the rural areas from which children are not exempted, the study was designed to find out the effects of children's involvement in agriculture on their educational welfare.

The general objective of the study was to determine the effects of children involvement in agriculture on their educational welfare in southwest Nigeria.

The study specifically

- examined the personal characteristics of the children,
- identified agricultural activities of the children
- examined educational activities of the children and
- determined if a significant relationship existed between selected children's educational activities and their level of involvement in agriculture.

MATRIALS AND METHODS

Sampling technique/sample size: Multistage sampling technique was used to sample 540 children aged 5-14 years. Fifty percent of the six south west states (Ogun, Osun and Ondo) were selected. In each state, three local government areas in the ratio 1:2 for urban and rural were chosen giving three urban LGA's and six rural LGA's. Fifty percent of the political wards in each LGA were selected making 45 wards and a community was selected from each ward. A well structured interview schedule was used to obtain primary data from 12 children in each community.

Analytical techniques: Descriptive statistics such as frequency tables, means and percentages were used to present the findings of the study. Academic level was measured by using the child's position in the class in the last promotional examination and placing it in relation to whether the child is among the first 3 or 10 or above average and those below average. Educational activities were measured using scales based on a weekly estimation for studying opportunities and on a monthly basis for punctuality and absenteeism. Pearson product moment of correlation was used to test the study hypothesis.

RESULTS AND DISCUSSION

Personal characteristics of children

Gender of child: Majority of the children interviewed are males 76.2%. This is in line with other studies that reveal that males are more involved by parents in agricultural activities than the female gender ILO, 2005. Ghana is however an exception among African countries studied with more females engaged than males in agriculture. Kabebwe also recorded more male involvement on tobacco plantations in the Dominican Republic. Laogun *et al.* however recorded 43% female involvement in Ondo state. This is however due to the sample of over 15 year lds with the modal age category for the study as 11-5 years 65%. Therefore, with the lower ages, male children are more involved than the females in agricultural activities. This has implications for the male children at this stage of development as their greater involvement may hamper their educational activities

Age of child: Mean age of children involved in agriculture was 12 years with 86.9% between the ages of 10-14 years and 13.1% in the 5-9 years category. Most of the children involved in agricultural activities therefore were older children.

Educational activities: Table 1 reveals 98.7% of the children were enrolled in formal educational institutions. This is much higher than estimated net enrollment figures for low-income countries 50% and greater than 85% in shigher income countries as reported by ILO. Majority 40.9% were in the junior secondary school followed by those in the senior secondary school 23.5%. This reveals that about 22.55 of the children are behind in their educational level with respect to their age as only 64.4% of the 86.9% of those between 10-14 years are in the secondary school. This may however be due to late start in their education as repetition figures are not available for the study. Assaad *et al.*[4] in their study nevertheless found a strong causal relationship between schooling and work activities of children in Egypt. It can however be implied that formal education is highly valued in the study area and agricultural involvement does not hinder formal educational enrollment. This is a good situation in view of the millennium development goals for education.

All had opportunity to study at home with a few (the most hindered) doing so on weekends 4.8%. However, despite high enrollment, findings as presented shows that educational activities may not be effective as 47.5% went late to school and 26.1% not attending school regularly. This is not really explicit in their data on academic level as 40.9 and 16.7% in the first 10 and first 3 categories respectively while others who just fell above the average were 24.8%. These results are however relative to the academic achievement of children in the study area as actual percentage of scores children received were not available.

Table 1: Educational characteristics of Children Involved in Agriculture

	Variable		
A	Educational level of child	F	%
	No formal	7	1.3
	Primary 1-3	82	15.2
	Primary 4-6	105	19.4
	JSS 1-3	219	40.6
	SSS 1-3	127	23.5
	Total	540	100
B	Time to study		
	Weekends only	26	4.8
	1-3 times weekly	69	13.0
	4-6 times weekly	113	21.2
	Everyday	325	61.0
	Total	533	100
C	Lateness to school		
	Everyday	44	8.3
	2-3 times weekly	15	2.8
	5-8 times monthly	14	2.6
	4 times monthly	180	33.8
	Never	280	52.5
	Total	533	100
D	Absenteeism		
	5-8 times monthly	35	6.6
	4 times monthly	104	19.5
	Never	394	73.9
	Total	533	100
E	Academic level		
	Below average	94	17.6
	Above average	132	24.8
	First 10 in class	218	40.9
	First 3 in class	89	16.7
	Total	533	100

Table 2: Children's agricultural involvement

Agricultural operations	Frequency	%
Land clearing	316	58.5
Stumping	94	17.4
Ridging/heap making	183	33.9
Planting	403	74.6
Weeding	445	82.4
Thinning	110	20.4
Staking	132	24.4
Fertilizer application	172	31.9
Herbicide application	38	7.0
Pesticide application	34	6.3
Irrigation	42	7.8
Harvesting	469	86.9
Transport from farm to home	352	65.2
Processing activities	180	33.3

Children Agricultural involvements: Children were involved in 14 agricultural activities with a mean of 6 activities. The highest involvement was in harvesting 86.9%, weeding followed 82.4% then planting activities 74.6%, transportation of produce home 65.2% and land clearing 58.5%. The lowest involvements were in pesticide application 6.3%, herbicide application 7%, irrigation activities 7.8%, stumping 17.4%, thinning 20.4%, staking 24.4%, Table 2, fertilizer application 31.9%, processing 33.3% and ridging 33.9%. The findings reveal that contact of children with agro chemicals was very low except in the case of fertilizer application. This may be as a result of the fact that their parents do not use them thus; hazards from chemicals are thus avoided. Few are involved in the high energy sapping activities like stumping and ridging, as well as staking which is strenuous and require skill as well as care. The high involvements are however in the activities that require little supervision, strength and skill. The fair involvement of children in helping to transport produce to the market may however be a reason for children's lateness and absenteeism from school.

Children spent an average of 7 h weekly on agricultural activities. The Nigerian labour act of 1974 however recommends a maximum length of not more than eight hours in a single day. This gives a maximum of 28 h in a week. However if according to Adegeye and Dittoh[9] and Upton[10] a man day is 8 working hours and a child's day is a third of that (approximately 3 h), this gives a maximum of 21 working hours per week. This means the children in the areas sampled do not exceed these limits.

Hypothesis testing: Pearson product moment correlation analysis reveals that all children's educational activities were negatively and significantly correlated with the level of involvement in agricultural activities: study time ($r = -0.44$, $p<0.05$), punctuality ($r = -0.32$, $p<0.05$), absenteeism ($r = -0.44$, $p<0.05$). Academic achievement of children was also negatively and significantly correlated with their level of involvement in agriculture ($r = -0.41$, $p<0.05$). The negative signs indicate an inverse relationship between the variables meaning that the higher their level of involvement in agricultural activities, the less time they have for study, the more times of lateness to school and the less frequent they attend school. The effects of these is consequently reflected in the high negative correlation of their academic achievement with their level of involvement revealing that the more children are involved in agricultural activities the worse off they will be academically. This assertion is further supported by the United States general accounting office report of 1998 which stated that an involvement of more than 20 h a week in agriculture can negatively affect children's educational performance to a significant degree. If this obtains in a developed country then by comparison with the7 hours worked weekly by children in the study area, it will likely be detrimental to their academic achievement.

CONCLUSION

The study identified a benign level of involvement of children in agriculture, not going beyond the maximum recommended level by the law. However analysis revealed this level of involvement still affected the educational

activities of children. Therefore issues of child welfare should go beyond looking at only legally permitted hours of involvement of children in labour into concrete relational consequences on various aspects of their welfare. Farmers should therefore be enlightened on the fact that agriculture is an occupation that children's involvement must be monitored and done on a sustainable basis such that their future prospects are not hindered.

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