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Gender and academic achievements of agricultural students of College of education, Katsina-Ala

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GENDER AND ACADEMIC ACHIEVEMENTS OF AGRICULTURAL STUDENTS OF COLLEGE OF EDUCATION, KATSINA -ALA

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ABSTRACT.
This study was conceived to investigate the relationship existing between the gender of students and their academic achievements. The population of the study comprises of agricultural students of College of Education, Katsina-Ala, between 1979 and 1988. It was found that female students obtained higher mean score values at graduation than their male counterparts. Based on the findings, it was recommended that more female students should be encouraged to study agricultural education programme at the college.

INTRODUCTION.
Since the United Nations declaration of a decade for women (1975 - 1985), governments and voluntary organisations interested in gender-related activities have consistently called for a fair distribution of gender-based human activities among males and females in society. In Nigeria, positive efforts at correcting imbalances in the distribution of facilities among males and females was initiated in policy changes that created sex-biased structures such as Better Life for Rural Women Programme, National Commission for Women, National Council for Women Societies, among others. An analysis of those structures show that, they are not only geared towards correcting an unfair treatment of women, but that they also vary in philosophy and orientation. Some gender-based structures are political, while others are social, economic or educational.

In the area of education, several supplementary educational programme are mounted to correct the, hitherto, man-dominated educational opportunities in the country. For example, there are women education centres in all local government areas in the country, and a unit of women education in both the Federal and State Ministries of Education to narrow the education imbalance existing between males and females in the country. The establishment of these structures for the purpose of fairness is also backed with heightened interest in studies that focus on gender differences.
In one of these studies, Ogunowo and Idibie (1992) reported that female students differ in their attitudes and choices of occupations from the males. Hilton (1974) showed that boys and girls demonstrate almost identical achievement levels from age nine until age thirteen years when the differences in achievement is in favour of the boys.

In Benue State agriculture, where this investigation was focused, the need for balanced participation in agricultural education programmes has been demonstrated to exist beyond the current public outcry for fairness and balanced involvement of males and females in productive activities (Uwadiae, 1993). According to Abelega (1994) these needs in Benue agriculture could be effectively pursued through formal agricultural education in learning institutions. However, fears have been expressed in many quarters that the academic achievements of women may not be comparable to those of their counterparts (men) who are traditional beneficiaries of agricultural education programmes in the state. These fears are borne out of the fact that no one has established the relationship existing between gender and academic achievements of the students in the area. This state of affairs raises questions as to whether there is a negative, neutral, or positive correlation or disparity between the level of academic achievements of agricultural students based on gender.

Consequently the study sought answers to the following questions:

1. What are the mean entry level achievements of females and males in agricultural education programmes at College of Education Katsina-Ala?

2. Which category (male or female) of the students that study agricultural education obtain higher academic achievement scores in agricultural education programmes of College of Education Katsina-Ala at graduation?

Hypothesis:

1. There will be no significant difference in the mean academic achievements (P 0.05) of females and male students who were admitted into agricultural education programmes of College of Education, Katsina-Ala. On the basis of their credit/merit passes in G.C.E./T.C.H examination respectively.

METHODOLOGY.

Population / Sample.

The population of the study was made up of all students who were admitted to study agricultural education at the NCE level in the department of Agricultural Education, College of Education, Katsina-Ala, from 1979-1988. This population was composed of three groups: holders of GCE, TC II, and both TC II and GCE certificate holders. Based on records available from 1979/80 to 1987/88 session, 264 agricultural education students had passed through the programme, and the entire population was involved in the study.
Data Collection and Analysis.

The study utilized secondary data from the examination scores of the subjects kept by the Academic Records Unit of the Registry department, College of Education, Katsina-ala. In order to obtain the necessary data, the entire qualification as well as the final years scores/grades of the students for the study period (seven years) were obtained. Individual academic achievements as evidenced in the grades obtained in GCE/TC II as well as final grades/scores were converted into grade point average (GPA) and the mean for the group utilized to analyse and test the hypothesis formulated for the study. The data were analysed using the mean and t-test at 0.05 level of significance.

Results

The findings of the study are summarised in tables one to three, based on the research questions and the hypothesis of the study.

Table 1: Entry level mean achievements of male and female students admitted to study agricultural education, at College of Education, Katsina-ala.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Size</th>
<th>Mean (X)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>216</td>
<td>2.565</td>
<td>2.829</td>
</tr>
<tr>
<td>Females</td>
<td>48</td>
<td>2.011</td>
<td>1.110</td>
</tr>
</tbody>
</table>

Table 2: Difference in mean scores between male and female students in agricultural education programme at graduation

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>X</th>
<th>Sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>218</td>
<td>57.47</td>
<td>4.81</td>
</tr>
<tr>
<td>Females</td>
<td>48</td>
<td>59.16</td>
<td>4.98</td>
</tr>
</tbody>
</table>

Table 3: Test of significance of difference in mean scores between male and female students in agricultural education programme.

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>X</th>
<th>Sd</th>
<th>X₁ - X₂</th>
<th>tₚ₀₀₀</th>
<th>t₀₀₁</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>218</td>
<td>57.47</td>
<td>4.81</td>
<td>-1.69</td>
<td>-2.16</td>
<td>1.96</td>
<td>Significance</td>
</tr>
<tr>
<td>Females</td>
<td>48</td>
<td>59.16</td>
<td>4.98</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Findings from tables 1 - 3 reveal that:

1. Male students of College of Education, Katsina-ala have higher entry mean score value and wider standard deviation than female students (X₁ = 2.566; Sd₁ = 2.829 and X₂ = 2.011; Sd₂ = 1.110, respectively)
2. Female students of College of education, Katsina-ala obtained higher mean score value at graduation than their male counterparts (X₁ = 2.566; Sd₁ = 2.829 and X₂ = 2.011; Sd₂ = 1.110, respectively)
3. There is a significance difference in academic achievement of males and females in agricultural education programmes at the NCE level. Female student recorded higher performance than male students.

Discussion

The findings of the study reveal that more qualified male students secured admission into agricultural education programmes of College of Education, Katsina-ala than female students. These results are expected because the tradition of the predominant tribe (Tiv) in the study area demands that the male members of the society become independent earlier than the females. Consequent upon this expectation, the males may have put extra efforts to obtain good grades that are a prerequisite for securing admission into the agricultural education programmes that is one of the surest ways to guaranteeing them earlier independence. Also the preponderance of males in the agricultural education programmes may have forced the authorities to raise the standard required for admission for the males, or perhaps, lower same for the females.

In comparing the levels of achievement of the sexes, the study revealed that female students obtained higher scores (X = 59.16) than the male (X = 52.47) students. These findings seem to contradict the earlier impression that more intelligent male students were admitted than female students in the agricultural education programmes. When the researcher investigated the relationship between the entry qualifications and the students’ academic achievements on graduation, it was discovered that a low positive product moment correlation (r = 0.14) existed between students’ entry qualification and their academic achievement on graduation. This low correlation co-efficient does not seem to duplicate correlations usually obtained elsewhere in Nigeria between post-primary grades on which admission was based and grades at the higher institution (Okoro, 1986).

When the findings were tested using t-test at 0.05 level of significance, it was shown to be significant at that level of probability. This difference in levels of achievements between male and female students could be attributed to preference for agricultural education by the female students. According to Carlson and Peterson (1979), students achieve higher in Science when they have preference for the Sciences than when they do not. If female students have greater preferences for agricultural education than their male counterparts, they should perform better than males in the examination results utilized for this study.

Another cause of the discrepancy between male and female students is parental attitude which seem to limit the number of female students admitted in the institution. With limited number of female students admitted each year, the sample may have presented a distorted picture of the true relationship existing between female students and their academic achievement.

Additionally, another reason for the difference between male and female students’ achievement could arise from moral and sexual laxity on the part of the male lecturers who are in the majority in the institution. Bine (1989) reported an alarming incidence of sexual laxity in the tertiary institutions in the state that needed to be curbed. The laxity on the part of the teaching staff may have resulted in inaccurate assessment that portrayed the (weak) group of female students as intelligent group. The reasoning is informed by the findings presented in Table 1. In the table under reference, admitted male students recorded higher entry level
achievement mean score \( X = 2.565 \) than the female students who had low mean entry score value \( X = 2.011 \). The fact that there is a positive correlation between the entry level achievement in the GCE / TC II lays credence to the fact sex differences contribute to the level of academic achievement at the NCE level of the college. Consequently, it is within common logic to report that the vogue "Use what you have to get what you want " is playing a part in the award of marks at the institution.

CONCLUSION.

On the basis of the accuracy and validity of this study, one is constrained to put forward the conclusion that the difference in academic achievements in agricultural education at the College of Education, Katsina-ala, is less as a result of differences in entry level qualifications and more due to the gender of the students. This conclusion is majorly because of the weak positive correlation between students' entry qualifications and their academic achievement at the College. Therefore, while it could be correct to endorse the view that TC II and GCE O’level results are good predictors of possible success of the prospective students of agricultural education programme at the College, one may be constrained to conclude that additional aptitude test is required if better than average selection criteria are needed in selecting prospective students for admission into agricultural education programmes of the institution.

Based on the findings, the following recommendations are made:

1. Prognostic tests that take into account the role of motivation and its estimation in the learners should be administered in addition to credit/merit passes in GCE / TC II examination results as well as written and oral interviews for admission.

2. Teachers of agricultural science in the post-primary schools and other institutions should work hard towards clearing the popular, but false, notion that agricultural science is for male but not for female students. Also, parents and government should fashion out ways and means of encouraging and sustaining females' interest in agricultural education programmes.

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