

Gender Parity in Teaching and Learning of Home Science in Secondary School within Nandi District, Rift Valley Province, Kenya

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Home Science is a much-misunderstood subject in the sense that it is viewed as a female oriented discipline, a subject suitable for academically weak students and a subject that has no wide range of job or career opportunities. On the basis of this misunderstanding, many people have developed negative attitude towards the subject. The present study in Nandi district revealed that the teaching and learning of Home Science is apparently gender biased. Mainly both ferrule students and female teachers dominate it. The present study has revealed that a large proportion 402 (98) of the students offering this subject in Nandi District secondary schools are female and an equally large proportion 20 (95.2) of teachers are women.

Key words: Home Science, gender bias and Nandi district.

Introduction

Home Science is a much-misunderstood subject in the sense that it is viewed as a female oriented discipline, a subject suitable for academically weak students and a subject that has no wide range of job or career opportunities. On the basis of this misunderstanding, many people have developed negative attitude towards the subject.

It is not surprising that the subject is not only unpopular with parents but also the male students. The studies that have been conducted in this subject in the past tend to support the views above. For example, Kasuku (1984) has established that many people view Home Science as a subject dealing with cooking and sewing, skills that can be acquired without necessarily attending school. Further, Wagah (1985), points out that studies carried out in the past show that few students are attracted to the area of Home Science since it is seen as less important, less prestigious and having no vocational future. In a similar study, Sigot (1987), reports that for many people, Home Science is either for academically weak students or women only. In addition, Otunga (1993) reveals that the girls who enrolled for Home Science normally had the approval of the parents who considered this subject as female- oriented. As a reinforcement of this view, Mugenda (1995) assert that Home Science has been identified with women's work, and therefore, has been stigmatized as a feminist subject since it deals with cooking, cleaning and caring for babies in the home. These views seem to indicate that Home Science is a misunderstood subject. The Kenya National Examination Council reports (KNEC 1990 -1995) have identified Home Science as one of the most poorly performed subjects, with a mean mark

of below 50% in the theory paper. In addition students' enrolment in the subject at the Kenya Certificate of Secondary Education is declining, especially among the male students. From this table it is quite clear that the enrolment of students in this subject has been declining progressively, especially among the male students.

In the light of these observations, the present study is designed to examine the attitudes of the teachers and students as one of the possible factors contributing to this trend in the teaching and learning of Home Science at secondary school level. There are many factors that contribute to this observed phenomenon. Home Science is still considered a woman's pursuit hence not seriously taken as an academic subject. East (1980) provides reasons for some people's holding of Home Science in low esteem.

Materials and Methods

Study Area

The study was carried out in Nandi district of the Rift-Valley Province of Kenya which has a total of sixty-nine secondary schools. The district lies within latitudes 0° and 0° 34' north and longitude 34° W east and occupies an area of about 2.784 square kilometers. The schools are classified into provincial, district and private schools. Eighteen schools offering Home Science were identified.

Study Population

Population for this study was drawn from the selected eighteen secondary schools that offer Home Science in Nandi district. The population of the current study comprised, Twenty-one Home Science teachers, sixty three non-Home Science teachers, eighteen head-teachers and four hundred and ten students.

Sampling Procedures

Purposive sampling method was used to select schools. That is, all schools that offer Home Science were selected and stratified sampling was used to select form three students. The respondent strata were made up of students who take Home Science and those who do not take it. Purposive sampling method was used to select male-students for the study. This was because there were few boys taking Home Science. Head-teachers and all Home Science teachers from the sampled schools were included. Random sampling method was used to select non- Home Science teachers.

Data Collection procedures

Permission to conduct the present study was sought from the Office of the President (O.P). Then letters of authority to conduct the research in the district were obtained from the district commissioner and the district education officer respectively. This was done before the researcher went to the field. Through the department of educational communication and technology (ECT) Moi University, introductory letters were prepared and sent to schools in time informing the

head-teachers of the intended visits. Data collection was conducted between April and June, 2000.

Instruments for Data collection

To collect the required data, two types of instruments were employed. These were the questionnaires and interview schedules.

Data Analysis

Descriptive and inferential statistics were used to analyze the data collected. The descriptive statistics were used to calculate percentages, means and frequencies while inferential statistics of the Chi-square (χ) and the One-way factor of analysis of variance (ANOVA) were preferred to establish the relationships between selected independent variables and dependent variables and the differences within and between groups of respondents on selected variables were employed respectively.

Results and Discussion

Information is given in Table 1. The analysis revealed that 60 (14.6) thought that only students talented in sewing and cooking activities should study the subject, while 18 (4.4) had no opinion on the item. A large proportion 332 (81) thought otherwise. Thus, according to students anybody can study Home Science because it has no unique characteristics that make it different from other curriculum subjects. The above findings are also consistent with one of the reasons given by students who did not opt for Home Science in the choice of optional subject on the argument that this subject can be learnt through other avenues other than being studied in school. The fact that the majority of the students felt that talents and specific skills were not necessary for an individual to study the subject seems to indicate that most students do not regard incompetence in sewing and cookery as a major hindrance to studying Home Science. This supports the widely held view that the subject deals with common things in life or in the home, which are not intellectually challenging enough. More often than not, students are familiar with most of the things studied in Home Science. This seems to indicate that it is not the difficulty of the practical aspects of the subject that discourage students from taking the subject but other reasons such as expenses involved in studying the subject, students interest, the student's attitude, and career preferences influence the student subject selection at school. A third item on the students' questionnaire seeking to establish the required intellectual ability for an individual to study Home Science was administered and the following observations were made as illustrated in Table 4.18. Two hundred and thirty six (57.5) of the students felt that it was not necessary for one to be clever to study the subject, while 35 (8.5) had no opinion. Another 139 (33.9) of the students felt that it was necessary for one to be clever to study the subject.

Table 1: Students' views on specific skill requirements for studying Home Science

| Opinion | Respondents | | Total |
|--------------|----------------|-----------------|-----------------|
| | Male | Female | |
| Agree | 16(19.3) | 44(13.5) | 60(14.6) |
| Undecided | 2 (2.4) | 16(1.9) | 18(4.4) |
| Disagree | 65 (78.3) | 267,81.7) | 332(81.0) |
| Total | 83(100) | 327(100) | 410(100) |

Table 2 shows that most of the students, 236 (56.6), feel that one needs not to be clever to study the subject. This observation is consistent with Wagah's (1985) views that too many people Home Science is for the less brilliant students. Apparently, the same view seems to be held by the student respondents'. That is, Home Science is an easy subject to study. When this same data was subjected to the chi-square statistical analysis on the basis of gender of students a significant relationship was observed as shown below.

Table 2: Chi-square statistical analysis on the basis of gender of students

| Variable interest | N | % | OF | P.V | C.V | P | LS |
|----------------------|-----|------|----|--------|--------|-----|----|
| Intellectual ability | | | | | | | |
| And gender | | | | | | | |
| Agree | 139 | 33.9 | 4 | 16.576 | 16,976 | 002 | |
| Undecided | 35 | 8.5 | | | | | |
| Disagree | 236 | 57.6 | | | | S | |
| TOTAL | 410 | 100 | | | | | |

The above result of chi-square analysis clearly shows that gender seems to have influenced the responses at alpha significant level of 0.05.

These were included in respective questionnaires, and the relevant findings are summarized in Table 3. On the item seeking information on whether many boys would enroll for Home Science if the subject was taught by male teachers, the analysis of the data established that 79 (21.7) of the students were of the opinion that more boys would enroll in Home Science if the subject was taught by male teachers, 278 (67.8) did not agree with the suggestion and 43 (10.5) were undecided. From this analysis it is clear that a majority 278 (67.8) of the students do not think that the sex of the teacher has any influence on the boys enrolment for Home Science. Perhaps this feeling may be attributed to the fact that most students have had no experience with male Home Science teachers, and the fact that Home Science is not gender balanced in Secondary schools. Further, female teachers dominate the teaching of the subject. Most boys would appear not to like Home Science because of the cultural influence as observed by the head-teachers; that the subject is viewed as feminist in nature. Consequently, ma/e students prefer studying other optional subjects. Six (28.6) Home Science teachers from mixed schools hold the same view.

The sex of the teacher did seem not to influence student's enrolment in Home Science as shown in Table 3. This seems to suggest that there are other aspects of the subject that may influence students to choose other subjects. Unfortunately students seem not to be familiar with Home Science related careers. They associate careers related to Home Science with female roles namely teaching and catering whereas the best chefs in hotels are men.

Table 3: Students' views on the influence of the teacher's gender on the students' enrolment in Home Science

| Opinion | Respondents | | Total |
|--------------|-----------------|-----------------|-----------------|
| | Male | Female | |
| Agree | 12(14.5) | 77(23.5) | 89(21.7) |
| Undecided | 10(12) | 33(10.1) | 43(10.5) |
| Disagree | 61 (73.5) | 217(66.4) | 278 (67.8) |
| Total | 83 (100) | 327(100; | 410(100) |

To determine whether there exists any difference between students taking Home Science and those not taking it, the above data was subjected to One Way factor Analysis of Variance (ANOVA). The data analysis revealed that there was no significant difference at the alpha significant level of 0.05 as in Table 4.

Table 4: One way factor analysis of variance

| Source of Variance | SS | DF | MS | F | P | LS |
|---------------------------|----------------|------------|--------|------|-----------|----|
| Male teacher influence on | | | | | | |
| Optional subjects | | | | | | |
| Between groups | 332 | 1 | .322 | ,T94 | .660 | |
| Within groups | 676.139 | 408 | 1.657, | | | |
| Total | 676.461 | 409 | | | NS | |

The next item sought to establish students' attitudes towards enrolling more boys in Home Science, Two hundred and seventy five (67.1) of the students indicated that more boys should be enrolled in the subject while 83 (20.2) thought this should not be the case. However, 52 (12.7) had no opinion. Table 5 gives the details of this analysis. It is clear from this analysis that many students felt that more boys should be enrolled in the subject. This could be attributed to the fact that there are very few boys studying the subject and therefore, students felt that they should be encouraged to take it. It appears that the students are aware of the usefulness of the subject and also that it is suitable for both boys and girls.

Table 5: Students' views on enrolling more boys in Home Science

| Opinion | Respondent | | Total |
|--------------|-----------------|------------------|-----------------|
| | Male | Female | |
| Agree | 44(53) | 1231 (70.6) | 275(67.1) |
| Undecided | 16(193) | 36(11.1) | 52(12.7) |
| Disagree | 23 (27.7) | 60 (18.3) | 83 (20.2) |
| Total | 83 (100) | 327 (100) | 410(100) |

When the above data was subjected to (ANOVA) between those students taking the subject and those not taking it, the analysis revealed that there is a significant difference in their views at the alpha significant level of 0.05 as in Table 6.

Table 6: ANOVA analysis between students taking home science and those not taking it

| Source of Variance | SS | DF | MS | F | P | LS |
|--|-------------|-------|--------|--------|-----|----|
| Enrolment of more Boys in Home Science | | | | | | |
| On optional subjects | | | | | | |
| Between groups | 33.404 | 1 | 31.404 | 19.853 | 000 | |
| Within groups | 645.376 408 | 1.582 | | | | |
| Total | 676.780 409 | | | | S | |

As can be seen from the above illustration, there is a significant difference regarding the views of those taking and those not taking Home Science.

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