

THE EFFECTIVENESS OF SMALL GROUP TEACHING METHOD ON THE JUNIOR SECONDARY SCHOOL STUDENTS' ACHIEVEMENT IN HOME ECONOMICS IN KANO STATE.

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ABSTRACT

This study examined the effectiveness of small group teaching method on the junior secondary school students' achievement in Home Economics in Kano State. A quasi experimental research design was adopted. The only two public co-educational secondary government schools in the state were selected from the schools. Two classes were randomly selected from the schools one assigned to experimental group and the other the control group. Forty (40) students were randomly selected from each class. The experimental group was exposed to small group teaching treatment package while the control group was exposed to expository teaching treatment package. The same scheme of work was covered for six (6) weeks for both groups. The t-test was used to test the three hypotheses raised for the study. The findings revealed that students taught with small group teaching technique performed better in Home Economics than those taught with expository method. The use of small group teaching as a collaborative/co-operative learning method was recommended and Government and Educational agencies should organize workshops to popularize the method.

Introduction

Home Economics is a field of study that teaches how human beings can be useful and contribute positively to the society. It prepares individuals for personal and family life across the life span as they manage the challenges of living and working in a diverse, global society. Home Economics is a field of study that provides the necessary knowledge for guiding and assisting human beings towards a more self-rewarding and fulfilled life compatible with the society within the context of Home Management and family life. (Crone in Agwasim 2001)

A number of instructional methods have been used since Home Economics have been introduced to schools. It is good to provide students with the foundation of skill and attitude for acquiring knowledge so that they will be adequately prepared to deal with future challenges. Teaching had been defined as a process involving all the approaches a teacher can use to bring about effective learning in students (Olanrewaju, 1994 in Awosika 2004), while learning is defined as a positive change in behaviour of a learner after his exposure to a teaching/learning situation. Teaching involves talking, demonstrating, performing, instructing, assessing and evaluating to bring about positive change in the behaviour of learners and make them acquire knowledge in the cognitive affective and psychomotor domains of learning (Bloom, Englehart, Furst, Hill, and Krathwohl 1956). For learning to effectively take place, students must receive facts about concepts, positive attitudes and *certain* physical and manipulative skills that will broaden their cognitive, affective and psychomotor capabilities. To do the above a good knowledge of the most appropriate stimulating challenging and effective strategy to use by the teachers to put concepts across to students is necessary. For effective teaching to take place, a good method must be adopted by the teacher.

In the study of Awosika (2004), on the preference of teaching methods of clothing and textiles teachers, the largest percentage of 80% of the respondents preferred theory and other lecture related methods. Odu (1991), stated that "educators must concern themselves with the individual's quest for identity, community, the proper use of fraternity, and the re-education of persons in human relations". The above in agreement with the analysis implies that students achieve more when they are less

dependent on their teachers. Since Home Economics belongs to the group of subjects that involve the use of the brain and the hand with the legs to practice. The manipulation of available equipment for skill acquisition and development of the individuals particularly in the present day Nigeria where self-reliance and technological growth is much desired. Hall and Paolucci in Awosika (2004) opined that "group thinking" as a means of communication would provide and facilitate practice for acquiring adequate skills in interpersonal relationship by observing and imitating others' ways of working. Such observations would provide clues for operating effectively machineries for skill development and resource management in real family-life settings as well as in the Society at large. Also, "group influence" would go a long way at helping students who possess anti-social attitudes to drop such negative ways of life and develop acceptable interpersonal relations so that they can graduate from the course better than they came in, hence the use of small group teaching method in this study.

Small group instruction is a form of cooperative learning, which students work in small groups, to help each other to learn. These groups vary in size. In small group each student typically learns a part of a larger unit and then teaches that part to the group. When students teach something to others, they tend to learn it more deeply. Research indicates that there is often much to be gained by arranging for students to collaborate in pairs or small groups as they work on activities and assignments (John, 2008). It promotes affective and social benefits such as increased students interest in and valuing of subject matter and increases in positive attitude and social interactions among students who differ in gender, race, ethnicity, achievement levels and other characteristics.

Small group learning also creates the potential for cognitive and meta-cognitive benefits by engaging students in discourse that requires them to make their task-related information-processing and problem-solving strategies explicit (and thus available for discussion and reflection). Students are likely to show improved achievement outcomes when they engage in certain forms of co-operative learning as an alternative to completing assignments on their

STATEMENT OF THE PROBLEM.

Home Economics: - A Vocational subject in the secondary school's curriculum has been observed to record poor students' performance especially in external examinations. This is even further compounded by the dwindling enrolment by students. There is wrong impression and ignorance by the society, and apathy against the subject, hence the notion that the subject is a mere waste of time and money to be included in the school curriculum.

The fact that many Home Economics perform poorly in the subject and do not want to choose it for specialization might suggest that the subject is not being successfully transmitted. One way of measuring teachers' effectiveness is by looking at the performance of students. The issue of poor performance of students especially in Home Economics has been blamed on teachers' inadequacies in the classroom presentations. The prevalent method of Home economics instruction has been described as mainly expository with little involvement of students in experimentation (Ebitanmi, 2004). According to Awosika (2004), the unconducive atmosphere created by the teachers' choice of method and the tension created by teaching strategies that are not student friendly gives credence to previous studies carried out by Imo (1997) that the factors militating against the achievement of educational objectives include "teacher related problem", that is lack of commitment, inappropriate and ineffective teaching methods and materials and poor motivation which results to lack of interest on the part of students. When students are not exposed to friendly and relaxed learning environments, they cannot be positively motivated to learn. Rather students develop manifest preparation anxiety which in effect leads to poor preparation and non achievement of set educational goals and objectives.

For Home Economics to contribute effectively to national development, the teacher as the communicator needs to employ a means of communication that would be usable and most efficient in ensuring the desired goals and objectives of learning, particularly in the area of skill acquisition for self-reliance. The need for a method that would ensure better acquisition of psychomotor cognitive and affective skills in Home Economics becomes necessary. Such a method is the "small group" method that would help members to be purposeful and orderly while identifying problems and finding common solutions to them.

Therefore, the questions that come to mind are;

- I. Could poor performance in Home Economics be due to instructional methods employed by the teachers?
- II. Can small group teaching technique make a difference in achievement in Home Economics?
- III. To what extent does small group teaching mediate between method of instruction and achievement in Home Economics?
- IV. To what extent does sex mediate between method of instruction and achievement in Home Economics?

HYPOTHESES

Hypothesis 1: There is no significant difference between the mean score of students exposed to small group teaching technique and to the expository method in Home Economics.

Hypothesis 2: There is no significant difference in the pretest and post test mean scores of students exposed to small group method in Home Economics.

Hypothesis 3: There is no significant difference in the pretest and post test mean scores of students exposed to expository method in Home economics.

METHODOLOGY

Research Design

The design adopted for this study was quasi-experimental consisting of the experimental and control groups - pretest and posttest.

Population of the Study

The population of this study consisted of all the students of JSS II offering Home economics as a subject in Kano State. The total number of students is 3,452 for 2010/2011 academic session (State Ministry of Education).

Sample and Sampling Technique

The sample was drawn from the junior secondary schools that offer Home Economics in the junior Secondary School Certificate Examination (JSSCE) in Kano State. Purposive sampling technique was used in choosing two schools in Kano municipal for the study. The only government two co- educational schools were selected, one class was randomly selected from each school. One class was assigned experimental and the other was the control group. The total sample size of eighty students (80) was used for the study. Forty (40) students made up the experimental group, while 40 made up the control group. The students for each group were selected by simple random sampling.

Instrumentation

The instruments used consisted of:-

- The cognitive achievement test made up of two sets of fifty multiple- choice items that generated the pretest and posttest mean scores. This was based on the three topics on the JSS II syllabus (TOCAH)
- The test of practical skill in Home Economics (TOPHE).
- Instructional Packages (small group and expository in Home Economics).

Validity and Reliability of the Instrument

The instruments were given to some experts who are lecturers of the faculty of Education University of Benin for scrutiny and vetting. After their comment, the instruments were modified and corrected. Therefore there is confidence in the face, content and construct validity of the instruments.

The instruments were tested for reliability using test-retest reliability test technique. This involved giving a test to the same group of students who did not constitute part of the study sample on two different occasions. The time lag between the two tests was two weeks. The scores of the two sets of test were computed. The Pearson Product Moment Correlation was used to test the reliability and the

reliability value obtained was 0.84 for the achievement test, and 0.75 for the test of practical skill. The high r-values showed that the instruments were reliable for the study.

Method of Data Collection

The teachers and research assistants involved in the teaching of the students control group) were trained. The students were grouped and posts were given to them with the help of the teachers and research assistants.

TOCAH was administered on the sample before subjecting them to treatment to generate the pre-test scores. A guide which contained instructional package of small group teaching (experimental) and the expository method (control) was made available.

After six weeks, both groups i.e. the experimental and control were given the post test to deduce the achievement of the students in Home Economics.

Data Analysis

The data collected were analyzed using the mean(\bar{x}), standard deviation and the t-test statistics to test the hypotheses at 0.05 level of significance.

Results

Research Question 1: Do students exposed to small group teaching technique and those exposed to expository technique differ significantly in their performance as determined by achievement in Home Economics?

Hypothesis 1: There is no significant difference between the mean score of students exposed to small group teaching technique and to the expository method in Home Economics.

Table 1:

Mean scores of students in small group and Expository techniques in the post test in Home Economics.

Category	N	X	SD		cal t	tab t	Decision
Small group	40	66	8.98	6.26	7.18	1.96	P>0.05
Expository teaching	40	56.8	4.53	8.98			

Table I shows a significant difference between the means scores of students exposed to small group and expository teaching methods in Home Economics. The calculated t is 7.18 which is greater than the table value of 1.96 of 0.05 level of significant. Thus the null hypothesis is rejected and the alternate hypothesis of a significant difference between students exposed to small group teaching method and expository method, making small group teaching method superior is accepted.

Research Question 2: Is there any significant difference in the pretest and post test mean scores of students exposed to small group teaching technique?

Hypothesis 2: There is no significant difference in the pretest and post test mean scores of students exposed to small group method in Home Economics.

Table 2: Mean scores of students' achievement scores in pretest and post test in small group teaching technique.

Category	N	x	SO	cal t	tab t	Decision
Pretest	40	52.03	6.26	9.78	1.96	p>0.05
Post test	40	66	8.98			

Table 2 shows significant difference between the pretest and post test scores of students exposed to small group teaching technique in Home economics. The calculated t is 9.78 while the table t is 1.96 at 0.05 level of significant. Thus, the null hypothesis is rejected and the alternative hypothesis is retained. The result indicated the superiority in the mean scores of students exposed to small group teaching technique.

Research Question 3

Is there any significant difference in the pretest and post test mean scores of students exposed to expository teaching technique?

Hypothesis 3: There is no significant difference in the pretest and post test mean scores of students

exposed to expository method in Home economics.

Table 3: Mean scores of students' achievement scores in pretest and post test in expository teaching technique.

Category	N	x	SD	cal t	tab t	Decision
Pretest	40	55.7	6.42	1.91	1.96	P<0.05
Post test	40	56.8	4.53			

Table 3 indicates non significant difference between the pretest and post test scores of students exposed to expository teaching technique in Home Economics. The calculated t is 0.91 and the table value is 1.96 at 0.05 level of significant. The null hypothesis is accepted. Therefore, there is no superiority in the entry level of the students and their achievement after their exposure to expository method of teaching.

DISCUSSION OF RESULTS

Table I reveals a significant difference in the mean scores of students exposed to small group teaching and expository. This confirms the work of Martin (2006), that students construct knowledge through social interactions with others. Teachers should provide support for students to explore and develop understanding. This is through the creation of many opportunities for students to learn by co-constructing knowledge along with the teacher and with peers.

Teachers should serve as facilitators and guides rather than directors and molders of students' learning. When teachers serve as guides for students in discovering knowledge, there are social dimension to the construction. So also for processing information. If a teacher creates brainstorming session for students to come up with good memory strategy social interaction is clearly involved, students collaborate to solve problems.

The students with collaborative schooling background more often builds on the partner's ideas in a collaborative way than the children with traditional schooling experience. (Matusov, Bell and Rogoff, 2001)

Table 2 reveals a significant difference in the mean scores of students' pretest and post test in small group teaching techniques. This is in favour of the post test. This furthers the confirmation of the effectiveness of small group teaching. This is in line with the discovery of Reznitskaya, Anderson and Kuo, (2007), that, there are a full range of advantages that result from the implementation of discussion in the classroom. Participation in group discussion allows students to generalize and transfer their knowledge of classroom learning and builds a strong foundation for communicating ideas orally. Discussion plays a vital role in increasing students' ability to test their ideas, synthesize the ideas of others, and build deeper understanding of what they are learning. Large or small group discussion increases students' opportunities to exercise self-regulation, self-determination and a desire to persevere with tasks. Additionally, discussion increases students' motivation, collaborative skills and the ability to solve problems.

Table 3, reveals non significant difference in the pretest and post test mean scores of students exposed to expository method of teaching in Home Economics. This is to confirm the study of Afe, (1995) who recognized lecture method as a teacher-centred model in which he is the point of focus. He does everything for the learner; the learner is passive member of the teaching- learning situation. This method should not be used all the time by the teacher, as it does not encourage necessary interaction, nor does it allow the learners to participate in the classroom activities, the development of desirable skills and the students' use of their initiatives. Instead emphasis should be shifted to child centred approaches of teaching. Such types of learning promote retention and in-depth processing associated with cognitive manipulation of information.

CONCLUSION

This study has shown that small group teaching technique is a better method of teaching Home Economics at the junior secondary school level. Teachers should encourage the students' discussion in the classrooms to stimulate their interest through negotiating their own ideas with the ideas of others. This will promote retention and in-depth processing associated with the cognitive manipulation of information.

RECOMMENDATIONS

- (1) Since small group teaching method have been found to enhance achievement in Home Economics.

Home Economics teachers are encouraged to employ the method to increase the level of Home Economics achievement.

- (2) Seminars and workshops should' be organized periodically to bring about the awareness of co-operative/collaborative learning strategies in the learning and teaching of Home Economics concepts.
- (3) Teachers should make the working and psychological environment comfortable, attractive and permissive, in order to allow the students to be free in expressing their ideas.
- (4) The groupings in the class should be heterogeneous to allow free flow of ideas; the low ability students will benefit and improve interpersonal relations among students from different ethnic and socio-economic background.

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