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EFFECT OF SUBJECT CONTENT ENRICHMENT OF GIFTED STUDENTS IN SPECIAL SECONDARY SCHOOLS IN BAUCHI STATE

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Abstract

This study examines the effect of subject content enrichment on Government achievement of gifted students of special secondary schools in Bauchi state.Senior secondary school students were used as the subject of the study.The target population of the research was fifty-nine (59) students, and twenty-eight students (44) were sampled out of the population, using researcher advisor (2006) table of determining sample size, and they were purposively selected for the study. An experimental design was applied in the research. The subject of the research where divided into two groups (experimental and control group) Two null hypotheses were formulated and tested. Two objectives and two research questions were formulated to guide the study.Data collection instrument was however constructed by the researcher. The intervention period last for six weeks. Analysis and data presentation of this research using t-test independent sample were used; The findings of this research revealed that subject content enrichment is effective in enhancing gifted academic achievement. In view of this, it was recommended among others that teachers, administrators and parents as well should facilitate the use of subject content enrichment in schools and at home.

Keywords: Subject Content, Enrichment, Gifted Students, Special Secondary Schools, Bauchi State.

Introduction

Background to the study

Enrichment refers to provision of a differentiated programme of study for gifted students by the classroom teacher within the regular classroom, without assistance from an outside resource or consultant teacher. Additional experiences are provided to the gifted students with or without placing them in a higher grade (Okeke, 2011). Enrichment involves provision of selected stimulating activities learning experiences, resource materials designed to challenge their cognitive ability and promote independent and individual studies. Enrichment involves a lot of changes in content, activities initiatives and so on and so forth of regular curriculum. The rich curriculum is the heart of everything we do to help the gifted and it ensures that every child develop to his full potential both academically and personally. Enrichment is one of the strategies used in nurturing gifted students; as such it has to be judiciously in gifted schools so that their potentialities will be harnessed.

Ozoji (2000) defined gifted as children who have demonstrated, superior intellectual capability and or children with exceptional facility for achieving non academic task. In referral strategy for gifted and talented according to him they should be sent to agencies that believe in the philosophy of "catch them young". If the child is at school, the teacher should programme him into the Suleja academy (school for the gifted) if the child is outside the school, early identification and training will be best for the child. This tells us that the gifted students in school should be well treated with various techniques of nurturing the apt abilities of students with outstanding high academic performance. Students' academic performance depends to a large extent on comprehension of basic taught in the classroom and also on their ability to achieve what is expected from them. Gifted academic achievement could be realized only if teachers change the attitude of imparting knowledge to such students, therefore teachers of gifted students will have to adopt a new perspective about their profession.

The academic achievement of gifted children will only be a reality if the learning environment is conducive along with relevant available human and material resources. Meanwhile stalkholders interest and commitment counts alot in building quality in the education of gifted students, thus makes the academic achievement of gifted a reality.

Statement of the problem

Children are said to be gifted if they so far advance of the norm in some or all of the mental, physical, social or creative spheres that they need specialized educational practices in order to develop their promise or lasting contribution across the spectrum of achievement and to provide for their own maximum potential fulfillment. Watkinson (,1979) as cited in Abdullahi (2011). It is necessary to make special provision for children with such superior mental abilities. Though many states government across the federation make several attempts to establish secondary schools for the gifted students, Bauchi state government however is not an exception.

The Bauchi state government in its effort to fill the vacuum in different areas of human endeavor especially in the areas where the state is in desperate need, established three special schools for the gifted children in 2001. The mode of the student's identification is through

strict selection exercise based on merits; however, it is on quota basis system in which entry examinations are conducted in all the twenty local governments in the state.
Ever since the inception of the schools under the monitorship of Special Schools Management Board, the schools have been using regular curriculum. This gesture has however posed serious problems in realizing what is expected from the potential talented students admitted into those schools. Thus the main focus of this study is to find out the possible solution to the problem already discussed in this paragraph, as such the students should be taught with enriched subject content. Thus the present study is justified.

Objectives of the Study

The objectives of the study are as follows:

1. To find out the effects of enriched subject content on academic achievement of gifted students.
2. To find out the difference between boys and girls mean scores of the post-test

Research Questions

1. Does enriched subject content have effect on the academic achievement of gifted students in Bauchi State?
2. Does the boys academic achievement differ from the girls academic achievement after being taught with enriched subject content?

Hypotheses

Ho1: There is no significant difference in the mean score of gifted students between those exposed to enrichment and those exposed to regular curriculum.

Ho2: There is no significant gender difference in the mean scores of gifted students' exposed to enriched curriculum

Methodology

Research Design

The research design used in this research was quasi experimental design .It involves a pre-test of participant before the introduction of a treatment followed by a post-test after the introduction of the treatment. The design usually employed in classroom experiments when experimental groups are naturally assembled

Population and sample

Population

The target population for this study comprised of all the gifted students offering Government as a Course of study in SS II, 42 boys, 17 girls with approximate age of 17 years. A sample of 44 subjects was selected for the study, using researcher advisor (2006) table of determining sample size

Table 1. Enrolment figure of Government students as far 2019.

S/No	Name of schools	No. of students	Status
Government College Azare		19	Boys
Government College KafinMadaki		17	Girls
Government College Toro		23	Boys

Source: Bauchi State Special School Management Board (2019)

Sampling Technique

Purposive sampling was adopted in this research. In this technique, the researcher has complete freedomaccording to his wishes and desire. To choose or leave an itemfor the purpose of study. It is a very simple techniques of choosing a sample as is usefulin cases where the whole data is homogeneous and the researcher has full knowledge of the various aspects of the problem.

Sample Size

The sample size for this study was 44 and they were selected using purposive sampling technique from Government College Azare, Government Girls College Kafin Madaki.and Government College Toro'

Data collection instrument

The instrument used in this work was a test constructed by the researcher, both experimental and control groups were pre-tested and post-tested.

Validity of the instrument

The instrument used in this study was given a face-value by expert in special education (gifted and talentedspecialists) and test and measurement experts, the instrument was modified with their corrections and advice incorporated by the researcher.

Reliability of the instruments

The instrument was subjected to test re-test reliability technique with which its stability was ascertained. An interval of two weeks was observed between the test and the re-test. Then analysis using Pearson's product moment correlation between them showed that the test has a coefficient of reliability of 0.78. This shows that it is reliable for the data collection in this study.

Procedure Data Collection

The experimental group received treatment of six weeks in a meetinglasting period for 80 minutes each week. They were taught by the use of enriched curriculum. However, the control group was also taught using regular curriculum for the sameduration but with intervals.

The mean scores of pre-test and post-test were taken for the two groups. Beforethe actual test taking started the researcher ensured that all seats were well arranged in such a way that cheating would not be possible. For administration of the testth researcher asked for the assistance of some teachers.

Data Analysis

Research Question 1. Does enriched subject content have effect on the academic achievement of gifted students in Bauchi State?

In answering this research question, the researcher resorts to the use of descriptive statistics. The mean scores and standard deviations were compared. The mean score of the gifted taught with the enriched content curriculum was 18.71 with 0.991 as standard deviation when compared with the regular, the man score was 10.57 with standard deviation as 2.14. this shows that those in the experimental group outperformed thosegifted in the controlled group. This shows that enriched content has effect on the academic performance of gifted students in Bauchi State.

Research Question 2. To what extent does the boy's academic performance differ from the girls academic performance of children taught with enriched subject content?

Descriptive statistics was used by the researcher in answering this research question. The mean scores and the standard deviation obtained and compare by the researcher. The mean scores obtained by the boys was 18.86 with 1.07 as standard deviation while the girls' mean score was 18.57 with standard deviation as 0.98. This shows that boys performed greater than girls when using enriched subject content.

Table 1: t-test analysis and respondents on difference in performance between experimental and control group

Groups	N	X	SD	DF	T-CAL	T-CRIT	Decision
Enriched	14	18.71	0.991				
				26	12.921	2.056	H_0 Rejected
Regular	14	10.57	2.14				

Table 1 above indicate research hypothesis that the calculated t-value (12.921) is greater than the critical T-value obtained from the table (2.056) at 0.005 significant level, two tailed and 26 degree of freedom. This the null hypothesis which states that, there is no significant difference in the mean scores of gifted students between those exposed to experiment and those exposed to regular curriculum is rejected in favour on alternative one. Since the t-cal is greater than the t-crit, this shows that there is significant difference in performance of the two groups. This has successfully answered research question number one which sought to find out in curriculum enrichment has an effect on academic performance of gifted students.

The experimental group had a mean score of 18.71, whiles the control group had a mean score of 10.57. This clearly shows that the experimental group has performed better than the control group in the test, and this may not be unconnected with treatment given to the group, hence justifying the effect of curriculum enrichment on academic performance of gifted students.

Table 2. Gender differences on effect of the enriched curriculum

Groups	N	$\bar{X}$	SD	SE	DF	T-CAL	T-CRIT	Decision
Males	7	18.86	1.07	0.404				
					6	0.795	2.447	H_0 upheld

Females	7	18.57	0.98	0.369

The above table, the calculated t-value is 0.795, while the t-critical is 2.447 at 0.05 level of significance, of the t-calculated is less than the t-critical or table, we accept the null hypothesis which states that, there is no significant genders difference in the mean score of gifted students exposed to enriched curriculum, within the experimental group this however helped in answering research question two which strive to find out; to what extent do males academic performance of children taught with enriched curriculum

Discussions of the Findings

This study was intended to investigate the effect of curriculum enrichment on academic performance of gifted students of SSII offering Government as a subject of study in three Government Colleges (Special Schools) in Bauchi State.Based on the findings of the study two Hypotheses formulated and the answers given to the research questions showed that curriculum enrichment is a good technique to be relied upon for academic achievement of such students. It was clearly seen in the mean scores as the experimental group had 18.71 while control group had 10.57. This supports the findings of Margaret and Sheelah (2006) who found on the study of closing the gap with curriculum enrichment and differentiation one's school story. This approach resulted in improved students' achievement and the reduction of achievement gap between rich and poor different ethnic groups.

In another study Reis (2006) in Magret applied school-wide enrichment model in reading on 226 students, randomly divided into experimental and control groups. A hypothesis tested in this study showed that the students in the experimental group scored statistically, significantly higher than those in the control group in both oral and reading fluency attitude toward reading. Therefore,this research, when compared with that of Reis exposed the same findingwith this research as the subjectsin the experimental group scored higher than that of the control group this however improved students achievement in subject content enrichment.

The second hypothesis tested in the study had shown that there is no significant gender difference in performance within the experimental group. The result is in disagreement with the work of Loftus (1987) who submitted that in comparison, the findings revealed few differences in academic achievement between males and females, the significant difference observed was that males were more likely than females in their academic disciplines. This agrees with other researchers as seen in the works of Maccoby and Jockllin (1974) who suggested one principle for understanding gender differences in academic performance. They asserted that males and females do not differ in overall academic ability, although they added interest, motivation and training could affect the content of what is remembered**.**

Recommendations

Based on nth finding and conclusion, the following recommendations were made

i. Government and private organizations should often organize workshops, seminars for both teachers in special and regular school settings on the

effectiveness of subject content enrichment. In other words there is the need for enriching the subject contents for our gifted students.

ii. Teacher's administrators and parents as well should facilitate the use of subject content enrichment in schools and at home.

iii. Subject content enrichment should be made irrespective of whether the gifted students are males or females.

Conclusion

In the conclusion, the researcher noted that subject content enrichment is more effective at improving gifted students' academic performance in Government than regular methodology. The result obtained in the study revealed that enrichment techniques had a higher mean score than the regular method of instruction. Enrichment of subject content therefore is effective in improving the performance of gifted students thereby making them to maximize their potentials.

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