

ATTITUDE OF SPECIAL NEED STUDENTS TOWARDS LEARNING OF SCIENCE SUBJECTS IN PORT HARCOURT METROPOLIS IN RIVERS STATE: IMPLICATION FOR COUNSELING

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Abstract

The study investigated the attitude of special need students towards learning of science subjects in Port Harcourt metropolis in Rivers State: Implication for counseling. Three hypotheses were formulated to guide the study. The study adopted descriptive survey design method. The population of the study comprised all students with special needs in special schools in Port Harcourt metropolis. The sample of the study consisted of 300 students with special needs, a self-structured questionnaire was drawn by researcher titled "Attitude of special needs students towards learning of science subject scale (ASNSTLSS)" was used for data collection. The hypotheses were tested using chi-square at 0.05 level of significance. The results of the study are as follows: majority of the students with special needs in Port Harcourt Metropolis have positive attitude towards the learning of science subject, attitude of students with special needs in Port Harcourt Metropolis does not significantly differ based on their age, attitude of students with special needs in Port Harcourt Metropolis does not significantly differ based on their gender, attitude of students with special needs in Port Harcourt Metropolis does not significantly differ based on their socio- economic status respectively. Recommendations were made and conclusion reached.

Keywords: Attitude, Special Need, Learning, Counseling

Introduction

The major guiding principles of the National Science Education Standard (NSES), is based on science inclusive for all kind of students (NRC, 1996). This principle is based on the belief that all students, regard less of their race, disability or gender should be given the opportunity to earn and understand the essential science content describe in the standards.

Attitudes toward science subject signify feeling or interest, like or dislike science. According to Yara (2009) student beliefs that an attitude has the potential to either inhibits or facilitates learning. Various factors could contribute to the poor attitudes of the students with special needs towards learning of science subjects. Different

scholars all over the world including Wilson (1983), Soyibo (1985), Berg (2005) and Adeso (2008) shows that student's positive attitudes toward science subjects correlate highly with their interest in science. The attitudes of many Nigeria students towards the learning of basic science tend to decrease in the following order physics, biology, chemistry and mathematics. Ayelaagbe (1998) reported a means in which positive score of students' interest to learn science after exposing them to self-learning strategies. Similar result were also reported by Udonsoro (2000) after using computer text assisted programmed instruction to assist student activate some attitude toward science, after exposing student to self-learning device. According to Mercy (2014) an attitude is a

favorable or unfavorable response of individuals to things, people, places, ideas or event. Sarnpsen, et al (1994), Koballa (1995) Papanatasion and Zembylay (2004) noted that student's poor attitudes toward science are influence by incorrect information from the environment.

Many students think that science is complex or difficult and this affects their orientation to science achievement in school. Based on this, students who intend to study or teachers who are able to improve student positive attitude towards science become important (Harlen, 1990).

A good number of factors can be identified as factors responsible for attitude of student with special needs toward science subjects. The factors include peer group, teaching methods, teacher's attitudes, influence of parents, age, gender and cognitive styles of pupil's career, interest, social view of science and achievement.

However, the researcher have in mind to get answer to this factors hence embarking on the study "Attitudes of special need students towards the learning of science subjects" whether good (positive) or bad (negative)-Male and female students with special needs attitude towards learning of science subjects could be seen when one critically examine the number of male and female special needs children will in one way or the other help schools especially studying science related subject. Socio-economic status of students with special needs also influences their attitude studying science subject especially special need children from high secondary that view science as most important area in national development.

Research Hypotheses

The following hypotheses stated in the null form were tested at 0.05 level of significant.

H0₁: There is no significant difference in the attitude of student with special need towards the learning of science subject with respect to their class levels (Junior and Senior).

H0₂: There is no significant difference in the attitudes of male and female student with special needs towards the learning of science subjects.

H0₃: There is no significant difference in the attitude of special needs children from high and low socioeconomic status towards the learning of science subjects.

Methodology

Descriptive research design method was used for the study. The population of this study comprised all special needs students in the mainstream public secondary schools in Port Harcourt Metropolis of Rivers State. A purposive sampling technique was used for this study. This sampling technique helps them to give equal representation to a sample involved in this study on the basis of gender, age and socio-economic background. The sample of the study was 200 special need students drawn from the mainstream public secondary schools in Port Harcourt Metropolis of Rivers State.

The instrument for data collection was self-developed questionnaire titled "**Attitude of Special Needs Student towards Learning Science Scale**" (ASNSTLSS). The (ASNSTLSS) have two (2) section A and B. Section A is demographic data of respondent while section B consist of items which intended to asses attitudes of special need students towards learning science.

The instrument of this study was validated by the researcher's supervisor and other experts in Measurement and Evaluation in the Department of Educational Psychology, Guidance and Counseling, Ignatius Ajuru University of Education, Port Harcourt, who will make necessary corrections before the final draft will be drawn to certify its validity to measure what it purports to measure in the study.

The researcher administered the instrument with assistance from the school teachers. Consequently chi-square was use in testing the hypotheses at 0.05 level of significance.

Results

Hypothesis One

There is no significant difference in the attitude of junior and senior secondary school students with special needs towards the learning of science subjects. Chi-square was used to test this hypothesis as shown in table 1 below:

Table 1: Chi-square statistics of students with special needs towards science subjects based on their age

Child level	Attitude		
	Positive	Negative	Total
Junior students class	80(49.5)	70(50.5)	150
Senior students class	70(49.5)	80(50.5)	150
Total	150	150	300

Calculated x^2 value = 0.16

Critical x^2 value = 3.84

Degrees of freedom = 1

Level of significance = 0.05

Table 1 above shows that the calculated x^2 value is 0.16, critical x^2 value is 3.84, degrees of freedom is 1 and level of significance is 0.05. Since the calculated x^2 value (0.16) is less than the critical x^2 value (3.84) at 0.05 level of significance, the null hypothesis that the attitude of students with special needs in Port Harcourt metropolis towards the learning of science subjects with level of class does not significantly differ based on the level of school is accepted. This means that the alternate hypothesis is

rejected. The result is that the attitude of students with special needs based on the level of class in Port Harcourt metropolis towards the learning of science subject was not significant.

Hypothesis Two

There is no significant difference in the attitudes of male and female student with special needs towards the learning of science subjects. Chi-square was used to test this hypothesis as shown in table 2 below.

Table 2: Chi-square statistic of students with special needs towards science subjects based on gender

Gender	Attitude		
	Positive	Negative	Total
Male	80 (51.5)	70(48.5)	150
Female	70 (51.5)	80(48.5)	150
Total	150	150	300

Calculated x^2 value = 0.5

Critical x^2 value = 3.84

Degrees of freedom = 1

Level of significance = 0.05

Table 2 above shows that the calculated x^2 value is 0.5, critical x^2 value is 3.84, degree of freedom is 1 and level of significance is 0.05. Since the calculated x^2 value (0.5) is less than the critical x^2 value (3.84) at 0.05 level of significance, the null hypothesis that 'attitude of students with special needs in Port Harcourt metropolis towards the

learning of science subjects does not significantly differ based on their gender is accepted. This result reveals that the alternate hypothesis is rejected. The result shows that the attitude of students with special needs in Port Harcourt metropolis towards the learning of science

subjects does not significantly differ based on their gender.

Hypothesis Three

Attitude of students with special needs in Port Harcourt Metropolis towards the learning of

science subjects does not significantly differ based on their socioeconomic status. Chi-square was used to test this hypothesis as shown in table 3 below.

Table 3: Chi-square statistic of students with special needs towards science subjects based on their socioeconomic status

Socio-economic status	Attitude		
	Positive	Negative	Total
High	70(51.75)	80(38.25)	150
Low	80(63.25)	70 (46.75)	150
Total	150	150	300

Calculated χ^2 value = 0.26

Critical χ^2 value = 3.84

Degrees of freedom = 1

Level of significance = 0.05

Table 3 above shows that the calculated χ^2 value is 0.26, critical χ^2 value is 3.84, degree of freedom is 1 and level of significance is 0.05. Since the calculated χ^2 value (0.26) is less than the critical χ^2 value (3.84) at 0.05 level of significance, the null hypothesis that "attitude of students with special needs in Port Harcourt Metropolis Towards the learning of science subjects does not significantly differ based on their socio-economic status" is accepted. This result reveals that the alternate hypothesis is rejected. The result shows that the attitude of students with special needs in Port Harcourt Metropolis does not significantly differ based on their socio-economic status.

Discussion of finding

The result of hypothesis one (table1) shows that attitude of students with special needs in Port Harcourt Metropolis towards the learning of science subjects does not significantly differ based on class level. The increasing positive attitude towards the study of science subjects even by the students with special needs is due the relevance attach to the learning of science subjects and also as a result of its contribution to rapid technological development of the country. Thus, the students with special needs intend to contribute their quota toward the development of the country. This result is in agreement with Bergin and Garvery (1997) that students irrespective of their special needs status

have positive attitudes towards the learning of science subjects.

The result of hypothesis two (table 2), shows that the attitude of students with special needs in Port Harcourt Metropolis towards the learning of science subjects does not significantly differ based on their gender. This is due to changing stereotype in the academic performance of male and female secondary school students.

Before now, there was the believe that while male students are attracted and performs highly in science related subjects, their female counterparts have their aptitude in arts related subjects. However, the performance of both male and female students has continued to appreciate or increase. Also, the initial poor attitude towards the students with special needs have continued to change.

There is now wide-spread believe that disability is not inability and the academic competition between the special needs students and the- normal counterparts has shown that the students with special needs are doing very well.

This result is in agreement with that of Hofstein and Welech (2011) and Andarman and Maechr (2014) that the difference in the attitude of students with special needs towards the learning c science subjects is not statistically significant.

The result of hypothesis three (Table 3) shows that that the attitude of students with special needs in Port Harcourt Metropolis towards the learning of science subjects does not significantly differ based on their socio-economic status. This is due to the realization that education is a veritable tool for man's liberation from ignorance. Also, science education is an area that has a lot of potential in helping to reduce unemployment in the society.

It is due to the benefits associated in offering the science subjects that has made students with special needs in Port Harcourt to be positively disposed to the subjects. This finding is in disagreement with Deleo and Meloy (2012) and Mercy (2014) that family background is the most important predictor of attitudes of students with special needs towards learning of science subjects.

The results of the study are as follows:

1. Majority of the students 1th special needs in Port Harcourt Metropolis have positive attitude towards the learning of science subject.
2. Attitude of students with special needs in Port Harcourt Metropolis does not significantly differ based on their age.
3. Attitude of students with special needs in Port Harcourt Metropolis does not significantly differ based on their gender.
4. Attitude of students with special needs in Port Harcourt Metropolis does not significantly differ based on their socio-economic status.

Conclusion

Based on the results or finding of the study, the researcher concludes as follow:

1. Majority of the students with special needs in Port Harcourt Metropolis have positive attitude towards the learning of science subject because of their exposure.
2. Attitude of students with special needs in Port Harcourt Metropolis does not significantly differ based on the class level age, gender and socio-economic status.

Recommendation

Based on the findings of the study, the researcher recommends as follows:

1. School environment should be friendly to the students with special needs in Port Harcourt metropolis.
2. School building should be designed to enable the students with special needs in Port Harcourt move freely from one place to another.
3. Enough textbooks on science subjects should be provided in schools.
4. Laboratory facilities should be supplied in secondary schools in Port Harcourt Metropolis.
5. More science teachers should be employed in secondary schools in Port Harcourt.
6. Science teachers should make their lessons as interesting as possible to continue to sustain the interest of students with special needs in learning of science subjects.

Implication for Counseling

This study has far reaching implications for the special need children, teachers, counselors and psychologists.

1. Guidance and counseling centers should be establish on the campus, in order to assist students who may be faced with the challenges of special needs.
2. Guidance counselors should educate the college community on special needs children issues with regards to science education.

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