

## Influence of Peer Group on Students' Academic Performance in Physics: A Case Study of Otuocha Education Zone, Anambra State, Nigeria.

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### ABSTRACT

Peer group plays very important functions which greatly influences the academic performance of students. This is because students' academic performance correlate with the group he or she belongs. It may be negative or positive, if a student is influenced negatively by peer, it affects his or her academic performance, nevertheless, stronger students do have an impact on their peers and actually help improve their overall academic performance. The study therefore was designed to identify the influence of peer group on students academic performance in physics, if peer group influence has any significant effect on students academics performance in physics. Survey research was used for the study. Population of the study comprises all the SS 2 physics students in 28 public secondary schools in Otuocha Education Zone. Stratified random sampling was used to select 20 schools out of twenty eight (28) secondary schools. Simple random sampling was used to select fifteen (15) SS 2 physics students from each of the twenty 20 selected schools. Data for the study was obtained by administering questionnaire to 300 respondents selected through simple random sampling. The instrument has reliability coefficient of 0.76 which was obtained using spearman's rank order correlation coefficient data obtained were analysed using mean to answer the research questions and chi square to test the hypothesis. The findings of the study revealed that there are peer group influences on students academic performance such as smoking of cigarettes, drug abuse etc (negative influence) and enhancing group discussion, help to develop new ideas and knowledge etc (positive influence). Education should praise the positive choices that students make as regards to peers and work to combat the negative ones.

Keywords: peer group, academic performance, Physics, students.

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### INTRODUCTION

Peer group means people of the same age and ability. Peer group is a group of people who are united together by a feeling derived by a common concern as seekers of what was desirable for the group. It is child own friends and equal member of the group often have common interest. [1], defines peers as equal or as friend of about the same class members of the same society such as the boys scout, girls guide, chorister, football team, social clubs etc. The peer group influence on students' academic performance depends greatly on the skills and potential of the students [2]. The education foundation of a child starts from the home. It starts with informal education given to the child by the parents. When the child is of age he will be sent to school for final education. At

school, the students are exposed to so many people like the teachers and classmates. All these people associated with the education of the child certainly influence the students greatly. The academic performance of students is greatly influenced by the students who are mostly his/her classmates and peer group because he/she spent most of his/her time with them. Therefore, peer group is the first social group outside the home in which the students attempt to gain acceptance [3]. [4], observed that as a child grows up, his/her own peer group of companion are likely to become of greater importance to him/her than his/her parents and teachers. [5], maintained that peer groups have an even stronger influence than that of parents, although that extreme position has being refuted

by other researchers. The peer group influences are more pronounced and noted in secondary schools than in primary schools. This is because some of the children go away from home and stay in boarding schools where parental supervision and contact is very limited. However, the peer group influence is great both in and out of the school because there is the tendency for members to be comfortable with the group norms and values. This influence some time may lead to aggressive behaviour such as rioting in school. [6], noted negative peer influence could be seen as one of the militating forces why most students record poorly in academic performance, the reason for this is not far fetched; they spend a lot of time in extra curriculum. More often than not, academic priorities are neglected and thus academic performance grossly affected. [7], noted that the negative behaviour could be inform of anti-social acts of life disobedience to parents or school authority, engaging in all forms of

#### Statement of the problem

Peer group has many influences on students' academic performance. The ways and manners by which peer influence affects students academic performance needs to be researched and documented. These will assist parents and counselors to understand the pattern of peer influence and curb negative influence [3]. It is obvious that if children perform better academically during the years they have more positive peer group

#### Purpose of the study

The purpose of this study is to examine the influence of peer group on students academic performance in physics: A case study of Otuocho education zone, Anambra State. Specifically, the study sought to find out:

1. The influences of peer group on students academic performance in physics
2. If the peer group influence has any significant effect on students academic performance in physics.

truancy and unruly behaviours such as stealing, telling lies engaging in sexual offences that could lead to unwanted pregnancy and other offences such as a drug abuse. These could have negative effects on the learning outcomes of academic performances of the child. Nevertheless, stronger students do have an impact on their peers and actually help improve their overall academic performance. Therefore, positive peer influence on academic performance depends on person's self-identity, self-esteem and self-reliance. Academic performance refers to how well a students is doing in his tasks or studies. Therefore students academic performance depends on the group he or she belongs. [8], noted that if students is influenced negatively by peer, it affects his/her academic performance. [9], opined that academic performance is excellence in all academic discipline. Hence academic performance refers to a person's performance in a given area of study such as physics, chemistry, etc.

experiences. Positive peer influences generate more alternative solution to problem, proposed more mature solution and are less aggressive than students who are influenced negatively [4]. Therefore, the researcher intended to determine the influence of peer group on students' academic performance in physics: A case study of Otuocho education zone, Anambra State

The follow research questions were formulated to guide the study:

1. What are the influences of peer group on students academic performance in physics?
2. Does peer group influence has any significant effect on students' academic performance in physics?

The hypothesis that guided the study is:

1. Peer group influence has no significant effect on students' academic performance in physics.

### METHODOLOGY

The study adopted descriptive survey research design. Descriptive survey is concerned with the collection of data for the purpose of describing and interpreting existing conditions on practice, beliefs, attitudes etc [5]. The population of the study comprises of all the S S 2 physics students in twenty-eight (28) public secondary schools in Otuocha education zone, Anambra State. Stratified random sampling was used to select twenty (20) public secondary schools out of twenty-eight (28) public secondary schools. Simple random sampling was used to select fifteen (15) S S 2 physics students from the twenty (20) selected schools making the total sample of 300 students. The instrument for data collection were 20 items structured

questionnaire. The questionnaire items were subjected to pilot testing using 50 S S 2 physics students from the school in Oyi L.G.A which did not participate in the research. The test items were test for reliability using split-half method and correlation coefficient of 0.76 was obtained for the total test items using spearman rank order. Data obtained were analyzed using mean to answer research questions and chi-square to test the hypothesis. An arithmetic mean of the response scale of the instrument was calculated and found to be 2.50. This value was used as cut-off point. Any item of the instrument whose mean response was 2.50 or above was accepted while any one below was rejected.

### RESULTS

The data collected were analysed and the summary of the analysis was presented in the tables as follows: Research

Question:What are the influences of peer group on students academic performance inphysics?

Table 1: Mean responses of students on the influences of peer group on students' academic performance in physics.

s/n	Items	SA	A	D	SD	X	D
1	Peer group causes students to smoke cigarettes, abusing drugs	150	100	30	20	3.27	A
2	Peer group contributes more to mental development of adolescence than families do	100	150	35	15	3.12	A
3	Positive peer group relationships help adolescence to achieve decision self-determination from their parents.	200	50	40	10	3.47	A
4	Peer group contribute positively to adolescence's social development in terms of creating independence and self-esteem	150	100	35	15	3.28	A
5	Negative peer group makes the students involved in the activities that will harm themselves	100	150	40	10	3.13	A
6	They get distant from their family members and fall into a bad company	200	50	40	10	3.47	A
7	Peer group assist in group discussion to improve in their grades	200	50	45	5	3.48	A
8	Peer group work together to develop new ideas and knowledge	150	100	42	8	3.31	A
9	Peer group discuss their learning problems together	100	150	40	10	3.13	A
10	Upper grade of peer groups encourage others to work harder	100	150	43	7	3.14	A
	Grand mean					3.0	A

The data presented in table 1 above shows that all the items have mean values up to cut-off mark and above. This implies that all items were agreed by the respondents as the influences of peer

group on the students academic performance in physics. Research question 2: Does peer group influence has any significant effect on students' academic performance in physics.

Table 2: Mean responses of students on significant effect of influences of peer group on students academic performance in physics

s/n	Items	SA	A	D	SD	X	D
1	Peer group causes students to smoke cigarettes, abusing drugs	150	100	45	5	3.32	A
2	Peer groups make the students involved in the activities that will harm themselves	100	100	90	10	2.97	A
3	Peer groups makes students to engaging in all forms of truant and unruling behaviours such as stealing, telling lies etc	150	80	50	20	3.20	A
4	Peer groups help in mental development of adolescence	100	150	40	10	3.13	A
5	Peer groups enhance, group discussion among students and this improve their academic performance	200	50	45	5	3.48	A
6	Peer groups contribute positively to adolescence's social development in terms of creating independence and self-esteem	150	90	50	10	3.27	A
7	Working together of Peer groups help to develop new ideas and knowledge	200	50	35	15	3.45	A
8	Peer groups provide opportunity for the child to play many social roles such as of leader, a follower, teacher, student	100	150	40	10	3.13	A
9	Peer group help the child to win his/her independence easily from domination and set before him a goal which is more easily from attainable than the expectation of adult	150	70	60	20	3.17	A
10	Peer groups give considerable degree of emotional security, which help in the intellectual development of the child.	200	50	40	10	3.47	A
	Grand mean					3.3	A

The data presented in table 2 above shows that all the items have mean values up to cut-off mark and above. This implies that all items were agreed by the respondents as the effects of the

influences of peer group on the students academic performance in physics. Hypothesis: Peer group influence has no significant effect on students' academic performance in physics.

Table 3: summary of chi square test analysis on effect of the influence of Peer groups on students academic performance in physics

Expected	75	75	75	75	300
Observed	150	89	49.5	11.5	300

$$\begin{aligned}
 X^2 &= \sum \frac{(O-E)^2}{E} \\
 &= \sum \frac{(150-75)^2}{75} + \frac{(89-75)^2}{75} + \frac{(49.5-75)^2}{75} + \frac{(11.5-75)^2}{75}
 \end{aligned}$$

$$\begin{aligned}
 &= 75 + 2.6 + 8.7 + 53.8 \\
 &= 140.1 \\
 Df &= (R - 1) (c - 1) \\
 &= (2 - 1) (4 - 1) \\
 &= 1 \times 3 = 3
 \end{aligned}$$

From the table 3, it was observed that the calculated chi square value is 140.1 far

exceeds the critical value (7.82) at df 3 and 0.05 alpha level, the null hypothesis was rejected. This shows that peer group

influence has significant effect on students academic performance in physics.

#### DISCUSSION OF THE FINDINGS

The findings in table 1 revealed that peer group influences the students academic performance in physics either positively or negatively. This is in line with [4] that negative aspect which could be detrimental to students' academic work are the cases of group behaviour such as truancy, persistent lateness to school, juvenile delinquency, stealing, absenteeism, from school disobedience, laziness, disregarding school rules and regulations. Although stronger students do have an impact on their peers and

actually help improve their overall academic performance. The findings in table 2 revealed that peer group influence has significant effect on students' academic performance. It is obvious that if children perform better academically during the years they have more positive peer group experiences. This is in line with [8] that positive peer influences generate more alternative solution to problem, proposed more mature solution and are less aggressive than students who are influenced negatively.

#### CONCLUSION

The findings of this study show that peer group influences have a relationship with students academic performance. This means that students academic performance correlate with the group he

or she belongs. If the influence is positive, it affects students' academic performance positively but if it is negative influence, it affects students academic performance negatively.

#### RECOMMENDATIONS

1. Teachers, other educational practitioners and those in related professional training need to have knowledge of the effects of peer group pressure and understanding of the issues surrounding negative peer influence to prevent negative peer influence and be more adequately prepared to help a teenager facing negative aspects of peer pressure.
2. Students should encouraged to choose their friend wisely as some have negative influence on their academic performance, especially those who sneak out of school, use

drugs and those who do not attend school regularly.

3. Parent/guardian should be aware of friends their children keep to reduce the chances of peers influence on their children.
4. Teachers should focus on promoting classrooms of acceptance. They should avoid playing favourite and abandon negative images of students that they already possess.
5. Educators should precise the positive choices that students make in regards to peers and work to combat the negatives ones.

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