



Parental support and involvement as a correlate of students' academic achievement in secondary school chemistry in Rivers state

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Abstract

Parental support and involvement for a child at schooling age is very important and aid cognitive and social advancement of the child. This study investigates parental support and involvement as correlates of students' academic achievement in senior secondary school Chemistry. The study adopted survey research type and samples were randomly selected from ten senior secondary schools in Obio/Akpor Local Government Area of Rivers State. A total of one hundred and fifty students comprises of males and females were involved in the study. Two research instrument namely; Parental Support and Involvement Questionnaire (PSIQ) and Chemistry Achievement Test (CAT) with $r = 0.87$ and 0.82 respectively. Four research hypotheses were tested and data were analysed using t-test and multiple regression analysis at 0.05 level of significance. The result shows that students from homes with parental support displayed more positive achievement towards their academic than children from home lacking parental support.

Keywords: Parental Support, Involvement, Correlate, Academic Achievement, Secondary School, Chemistry.

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INTRODUCTION

The Federal Government of Nigeria welcomes and encourages the participation of parents it's in fostering the academic progress of their children. In pursuance of this, the Federal Government of Nigeria enacted the Universal Basic Education Commission (UBEC) Act in 2004. One of the fundamental provisions of the 2004 UBEC Act is that every parent/guardian should ensure that

his/her child/ward attend and complete primary/junior secondary school education and failure to comply shall attract sanctions. UBEC Act further states that all stakeholders in education in a local government should ensure that every parent/person who has care and custody of a child performs this duty (UBEC Act, 2004).

Parental involvement in education is multifaceted. There are many different kinds of activities that parents engage at home and at school that are intended to assist children's overall learning experiences (Jordan, Orozco, & Averett, 2001). Often, these activities are quite different from one another yet they are lumped together as parental involvement or school -family connections. Moreover, parental involvement has been defined differently depending on the researcher's point of view. Some researchers (Peters, Seeds, Goldstein & Coleman, 2008) in their definitions of parental involvement emphasized on activities that take place at school such as parent's attendance at school events and participation in parent - teacher - association (PTA). Cooper, Lindsay and Nye (2000); Mapp (2003); (Shumow and Miller (2001) in their definitions of parental involvement emphasized on activities that take place in the home such as helping the child in his or her homework and assignments, and discussion about school issues between the parent (s) and the child. Other researchers (Jeynes, 2008; Lopez, 2001; Yonezawa, 2000) included abstract concepts such as parents' aspiration and actual involvement behaviours in their definitions of parental involvement.

Schools also benefit from parental involvement. Such benefits include improved teacher morale, higher ratings of teachers by parents; moral and financial support from families and better reputations in the community. Abdul-El-Fattah (2006) opined that parental involvement has been seen as mechanism for raising standards, developing new partnership between schools and parents in the local community and promoting social inclusion. In the same vein, Jordan et al (2001) and Bauch (2001) document that family attitudes toward education and their understanding of school improved as a result of their involvement in school-child activities.

Attempts and efforts of the state federal governments in Nigeria in terms of programmes, policies, practices and structures put on ground to encourage and facilitate a strong family - school linkages are commendable. These include the establishment of Parents Teachers Association (PTA) in the 1970s in public schools (primary and Secondary). The PTA is an instrument of community participation in education. The national PTA of Nigeria has one of its objectives as to provide platform for parents, guardians, sponsors and teachers of students of Nigerian primary, secondary and tertiary educational institutions to meet exchange views deeply, analyse issues, make recommendations, take and effectively pursue implementation of decisions on matters affecting education in Nigeria with the appropriate agencies.

Urban/rural ecology of school accounts for local context of parental achievement. There was therefore a need to explore the urban/rural context in which schools exist to fully understand, the connections. Perkins (2008) found that parents in urban districts are optimistic and positive about schools. Frazer (2002) concluded that an urban atmosphere is more conducive to better achievement than a rural environment. However, from the perspective of the social capital model, urbanism imposes a structural barrier for urban parents to interact actively with institutional agents (school). In contrast, small rural locations often characterized with close societies and intimate interpersonal relationships provide favourable environmental structures which can promote parental interactions with the school staff.

Parents play a significant role in shaping the direction or path their children follow in their later years. This was supported by Otto (2000) who states that both boys and girls look to their parents when making career choices. Researchers like (Cotton & Wikelund, 2001; Sheldon

& Epstein, 2001) have indicated that family support improves facet of children's education such as daily attendance, students' achievement, behaviour and motivation. The studies concluded that parents' support have a large role in children's academic achievement.

The importance of parental involvement cannot be overlooked, they do only provide mediated learning experiences through talking with the child, sharing experiences and teaching but also by organizing the child's learning experiences parental provision of appropriate play materials and opportunities for variety in activities during infancy contributes to intellectual development (Brooks et al., 1997).

Furthermore, according to Goldring and Shapira (1993), parent reports of providing educational experiences are correlates with higher intelligence, test scores creativity.

A child's education begins at home not in the classroom, and certainly the home's powerful influence does not end when school begin. Some parents are literate and their educational aspiration for their children is very high while others are illiterate and lack the cognitive ability to support their children's education. This implies that there is a big educational inequality among students in the secondary school and this could be the cause of mass failure and poor academic performance achievement in Chemistry among students in our various secondary schools. As a result of the aforementioned, this study sought to investigate parental supportive and involvement as correlates of students' academic achievement in secondary school chemistry in Rivers State.

Research Questions

This study provides answer to the following research questions;

- What is the relationship between parental support and students' academic achievements in Chemistry?
- What is the relationship between parental involvement and students' academic achievement in Chemistry?
- What is the relationship between parental support and involvement and students' academic achievement?
- What is the difference in the perception of male and female students on parents' supportiveness in students' academic achievement in Chemistry?

METHODS

Research Design

The research design adopted for this study is a survey research type.

Population and Sample

The target population for the study comprised all senior secondary school two students (JSS2) in Obio/Akpor Local Government Area, Rivers state. Ten schools were randomly selected and these include male and female students. Fifteen students were randomly selected from each of the participating schools to a total of one hundred and fifty (150) SS2 Chemistry students.

Instrumentation

In order to provide answers to the research hypotheses, two research instruments were developed by the researchers. These are Parental Support and Involvement Questionnaire (PSIQ) and Chemistry Achievement Test (CAT).

Parental Support Involvement and Questionnaire (PSIQ)

This instrument consists of two sections, A and B. Section A seeks background information on state, school location, name and sex of child. In section B, two subscales of the PIQ were used to assess level of parental involvement in education. These subscales are at-home involvement, and at-school involvement. The questionnaire prepared by the researcher.

At-home involvement

At-home involvement has 30 items. Each item was scored on a 4 - point Likert scale ranging from 1 (Never) to 4 (Very often). Scores of at-home involvement could range from 30 (low level of parental involvement) to 120 (high level of parental involvement). Face validity of this instrument was derived from experts' view on the suitability of the instrument; while the Cronbach alpha estimate of .87 was obtained for the internal consistency of the items.

At-school involvement

At-school involvement has 15 items. Each item was scored on a 4 - point Likert scale ranging from 1 (Never) to 4 (Very often). Scores of at-school involvement could range from 15 (low level of involvement) to 60 (high level of involvement). Face validity of this instrument was derived from experts' view on the suitability of the instrument; while the Cronbach alpha estimate of .92 was obtained for the internal consistency of the items.

Chemistry Achievement Test

The first instrument consists of two sections; section A deals with the demographic data of the students while section B consists of items to elicit information on the topic. The items were structured on a Yes/No scale and Cronbach alpha was used to establish the reliability of the questionnaire as 0.8. The second instrument (CAT) is a multiple-choice objective test with twenty-five items and five options A, B, C, D and E. Each item has one correct option (the key) and three distracters. The correct option attracts 1 mark and the total mark obtainable is 25 marks. A Kuder Richardson formula 20 (a measure of internal consistency and construct validity) was used to obtain the internal consistency of the instrument as 0.82. The reliability values of the instruments are high; thus, the instruments were used for the study.

Data Collection and Analysis Procedure

The administration of the instruments was coordinated by the researchers with some invigilators from the selected schools' premises. Data obtained were analyzed using T-test and multiple regression analysis.

RESULTS AND FINDINGS

Research Question One: What is the relationship between parental supportive and students' academic achievement?

Table 1: Relationship between Parental Supportive and Students' Academic Achievement

Variables	N	Mean	SD	r	sig
Parent's supportiveness	150	8.39	115	0.334	0.019
Students' achievement	150	25.25	2.56		

Table 1 shows r-value (0.334) which is significant at 0.05 ($P < 0.05$). This implies that there is a significant relationship between parental supportiveness and students' performance. The positive value of r indicates that the effect is positive. That is; as the parental support increases, students' academic achievement improves.

Research Question Two: What is the relationship between parental involvement and students' performance?

Table 2: Relationship between Parental Involvement and Students' Performance

Variables	N	Mean	SD	r	sig
Parent's involvement	150	8.74	1.04	0.926	0.00
Students' achievement	150	25.39	2.56		

Table 2 shows r-value (0.926) which is significant at 0.05 ($P < 0.05$). This implies that there is a significant relationship between parental involvement and students' performance. The positive value of r indicates that the effect is positive. That is; as the parental involvement increases, students' academic achievement improves.

Research Question Three: What is the relationship between parental supportive and involvement students' academic advancement in Chemistry?

Table 3: Parental Supportive and Involvement on Students' Academic Achievement in Chemistry

R	Adjusted R ²	F	sig	Variable	Beta	T	Sig
0.96	0.92	564.14	0.00	Parent's supportive	0.041	1.227	0.166
				Parent's involvement	0.950	31.548	0.00

Table 3 shows F-value (564.14) which is significant at 0.05 ($P < 0.05$). It follows that parental supportiveness and involvement do significantly determine students' performance. The beta values, 0.041 for parental support and 0.950 for parental involvement indicates that when these two variables are combined together, parental involvement predicts students' performance better than parental supportiveness. Also, the T-values, 1.397 ($P > 0.05$) for parental support and 31.548 ($P < 0.05$) for parental involvement, shows that while parental involvement significantly predicts students' academic achievement; parental support does not. The implication of this is

that it is not enough to support students monetarily or materially but parents should as well be involved in their wards' assignments, home and termly examinations.

Research Question Four: What is the difference in perception of male and female students on parental support?

Table 4: Male and Female Students' on Parental Supports

Gender	N	Mean	SD	DF	T	Sig
Male	78	12.985	2.87	142	-1.026	0.41
Female	72	13.33	1.533			

Table 4 shows T-value (-1.026) is not significant at 0.05, ($P < 0.05$). This shows that there is no significant difference in the perception of male and female students on parent's supportiveness.

DISCUSSION

The success or failure of student in school to a large extent, largely depend on the trust place on the teacher. Result from this research study reveals that for student to stay in school successfully and achieve set goals especially in adjusting to the unfamiliar environment during his/her early year parents assistant is necessary. This could be attributed to the fact that children leaving their home for the first time to a secondary school out of their environment could find it difficult to adjust to the school settings which is totally new and different from the home they are already familiar with.

The finding of this study revealed that the contribution of parental involvement and support to their wards educational growth is imperative. It shows that parental support and involvement contributive positively towards the child's educational goal attainment. This findings is in line with Chessman (2002) who found out that school factors, children's characteristics and family are important in explaining the influence of different school behavioural and academic aspect of the child's academic achievements in their first year of schooling.

This study thus revealed the fact that for a child to come to school to learn effectively, he must have a home environment support (cognitive and social skills). Thus the home environment is expected to be the starting point of a child's cognitive development as well as inculcation of social skills that could aid the child in his new environment.

Material provision also played a significant role in determining the rate of a student academic progression. Learning facilities are needed in good number to aid academic achievement. These resourced if provided by the parent acts as stimulants on both the part of the students and teachers.

More so, the study reveal that gender do not significantly affect academic achievement which implies that both male and female students if supported by parents can perform better in the school.

Finally, it was revealed in the study that when parents support their children at the secondary school, to enable them to adjust in the school setting thus, helping to achieve set educational goal.

CONCLUSION

The result of the study indicates that students from homes where the parents support the academic studies of their children demonstrated more positive attitude towards their academic than children from homes lacking parental support. The result of the study also agrees with the findings of Steinberg and Silverberg (1986), Thomas (1986) and Steinberg (1993) that parents remain a main contributor to their children adjustment, socialization, attitude and career aspirations. In the light of this finding, the need arises for parents to provide support which could contribute to the Chemistry achievement of their children. Again, the positive r-value (0.334) of Table 1 which is significant at 0.05, ($P < 0.05$) indicates that as the parental support increases, students' academic achievement also improves. Likewise, the positive r-value (0.926) of Table 2 which is significant at 0.05, ($P < 0.05$) indicates that as the parental involvement increases, students' achievement also improves. From Table 3, the T-values, 1.397 ($P > 0.05$) for parental supportiveness and 31.548 ($P < 0.05$) for parental involvement, shows that while parental involvement significantly predicts students' performance; parental support does not. The implication of this is that it is not enough to support students monetarily or materially alone but parents should as well be involved in their wards' assignments and preparation for the examinations.

Recommendations

Going by the outcomes of this study, the following recommendations were therefore made:

- Parents should as well be involved in their wards' assignments and preparation for the examinations;
- School management should encourage parents to give their children some gift in the form of encouragement whenever they do well at school;
- The results of mid-term test and Continuous Assessment (C.A) which stands as feedback mechanism should be given to the students to take home for their parents to see and know how their children are doing in school;
- Parent Teacher Association (PTA) meeting should be introduced;
- Finally, continuous orientation and advice be given to parents on the importance of education in the lives of their children.

REFERENCES

- Abdul-El-Fattah, S. M. (2006). The relationship among Egyptian adolescents' perception of the parental involvement, academic achievement, and achievement goals: A mediational analysis. *International Educational Journal*, 7(4), 499-509.
- Brooks, N., Bruno, E., & Burns, T. (1997). Reinforcing students' motivational through parent interaction. (Report No. PS-025753). Master's Thesis, Saint Xavier University & IRI/Skylight, 1997. (ERIC Document Reproduction Service No. ED411074).
- Bauch, J. P. (2001). *Parent involvement partnerships with technology*. Nashville, TN: Transparent School Model.
- Chessmann, E. (2002). Family Expectations and Students' Academic Attainment. *Journal of Sociology of Education*, 96(1), 24-44.

- Cooper, H., Linsay, J. J., & Nye, B. (2000). Homework in the home: how students, family and parenting-style differences relate to the homework process. *Contemporary Educational Psychology*, 25(4), 464-487.
- Cotton, K., & Wikclund, K. R. (2001). Parent Involvement in Education. Retrieved May 3, 2002, from <http://www.mwrc.org/scpd/>.
- Frazer, D.A. (2002). The influence of perceived family and person factors on self-reported school performance of high school students. *Journal of Research on Adolescence*, 11(2), 145-164.
- Goldring, F., & Shapira, P. (1993) Choice, Environment, and Involvement: What satisfies parents? *Educational Evaluation and Policy Analysis*, 15(4), 396 -409.
- Jeynes, W.H. (2005). *Parenting involvement and student achievement: A meta-analysis*. Cambridge: Harvard Family Research Project.
- Jordan, C., Orozco, E., & Averret, A. (2001). *Emerging issues in schools, family and community connections*. Texas: Southwest Educational Development Laboratory.
- Lopez, G. R. (2001). *On whose terms? Understanding involvement the eyes of migrant parents*. Paper presented at the Annual meeting of the American Educational Research Association, Seattle, WA.
- Otto, L. B. (2000). Youth Perspective on Parental Career Influence. *Journal of Career Development*, 27(2), 111-118.
- Perkins, B. K. (2008). *What we think: Parental perceptions of urban school Climate*, Alexandria VA: National School Boards Association.
- Peters, M., Seeds, K., Goldstein, A., & Coleman, N. (2008). *Parental involvement in children's education 2007*. BMRB International .
- Sheldon, S. B. (2011). Parental involvement in education-research on parental involvement effects on parental involvement obstacles to parental involvement, controversies, current issues Retrieved Jan. 20, 2011. from <http://education.stateuniversity.com>
- Steinberg, L., & Silverberg S. V. (1986). The Vicissitudes of Autonomy in Early Adolescence. *Journal of Child Development*, 57, 841 - 851.
- Thomas, G. E. (1986). Cultivating the Interest of Women and Minorities in High School Mathematics and Science. *Journal of Science Education*, 70, 31 -43.
- Universal Basic Education Act (2004). Federal Republic of Nigeria (FRN).
- Yonezawa, S. S (2000). Unpacking the black box of tracking decisions: Critical tales of families' navigating the course placement process. In M. Sanders (Ed.), *Schooling students placed at risk: Research, policy and practice in the education of poor and minority adolescents* (pp. 109-137). Mahwa, NJ: Lawrence Erlbaum Associates.