

Full Length Research Paper

Parental involvement as a correlate of pupils' achievement in mathematics and science in Ogun State, Nigeria

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This study investigated the achievement of pupils in the public and private primary schools in mathematics and science. The descriptive survey research design was employed to carry out this study. Four hundred and eighty (480) pupils from thirty primary schools in Ogun State, Nigeria were randomly selected for this study. From the results of this study, parental involvement accounts for 16.1% of the total variance in mathematics achievement of primary school pupils ($R^2 = 0.161$, $p < 0.05$) and 13.5% of the total variance in pupils' achievement in science ($R^2 = .057$, $p < 0.05$). These percentages are significant at 0.05 level of confidence. It shows that parental involvement is an important predictor of mathematics and science achievement. There exists a significant difference in the parental involvement of public and private primary school pupils ($t = -9.68$, $p < 0.05$). Private school pupils enjoy more parental involvement than their counterparts in the public schools. Teachers and Counsellors need to enlighten parents on the need to personally get involved in the academic activities of their children.

Key words: Parental involvement, science, achievement, mathematics achievement, teacher, pupils.

INTRODUCTION

The enterprises of science and science education, according to Alebiosu (2003), have immense contribution towards the growth, development and the survival of mankind. Science simply forms the avenue through which human beings interact and explain the universe or nature. It is concerned with clarity, truth-seeking and truth communication within empirical validity. Alebiosu saw science education as the tool used to achieve scientific literacy which is the gateway to achieve scientific and technological advancement and economic survival. She further pointed out that the place of science in the improvement of the social, economic and political life of mankind justified its inclusion in the curricula of schools.

Olatoye (2002) opined that science education lays foundation for work in science related fields by acquainting learners with certain knowledge, skills and attitudes. Ogbonna (2007) observed that there has been a worldwide recognition of science and thereby science educa-

tion has found a central place in the curricula of schools at all levels. Olutusin (2007) asserted that Mathematics cannot be separated from Science because of its application to physical science. So increasingly, applicants for best employment opportunities will need a good grasp of Science, Mathematics and Computer Technology. Hudson (1993) gave insight into Science, Technology and Mathematics education as comprising the following areas:

- i. Acquiring and developing conceptual and theoretical knowledge.
- ii. Developing and understanding of the nature and methods of science as well the awareness of the interaction of science, technology and mathematics (STM) and the society.
- iii. Engaging and developing expertise in scientific enquiry and problem-solving.

Mathematics in itself is identified as a specialized language in which knowledge of the physical world has been recorded; a language in which idea originating in the minds of scientists can be encoded, transmitted to

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others and decoded with a much exact method and much less error (Oyedeji, 1999). Olutusin (2007) described mathematics as an instrument to ease or facilitate the learning of other subjects and that today, the importance of mathematics permeate all aspects of human endeavour.

Solarin (2005) noted that as important as science and mathematics are to our national life, it is regrettable to note that both enrolment of students in science and their performance in science/mathematics examinations are not encouraging. Areola (1988) found that the performance of students in science was generally poor in all of the nine states in Nigeria where she carried out an evaluation study on the implementation of integrated science programme in Nigerian schools. In a similar manner, Olatoye (2002) found out that the students' science achievement in Lagos State secondary schools was generally poor with the overall mean score being 31.3%.

The poor achievement in mathematics and science as indicated by various empirical studies has attracted the concern of all stakeholders including the researchers; subsequently many factors have been identified and regarded as being responsible for the dwindling trend in the performance of students. These factors include school- and teacher- related characteristics, socio-economic conditions, social incentives, home and family background, parental involvement, and host of others (Gianzero, 2001; Olatoye, 2002; Olatoye and Ogunkola, 2008). This suggests that if the aforelisted factors and others can be taken into consideration, students will excel more in their academics generally and in mathematics and science in particular.

It is therefore worthy of mention that research overwhelmingly demonstrates that parent involvement in children's learning is positively related to achievement (Cotton and Wiklund, 1989). They further reiterated that research has shown that the more intensively parents are involved in the children's learning, the higher the achievement effects and that this position holds true for all types of parental involvement in children's learning and for all types and ages of students. The issue of family-school linkages has been widely, although not exhaustively researched (Gianzero, 2001).

The term "Parent involvement" includes several different forms of participation in education and with schools. Parents can support their children's schooling by attending school functions and responding to school obligations like parent-teacher conferences. They can become more involved in helping their children improve their schoolwork by providing encouragement, arranging for appropriate study time and space, modeling desired behaviour (Such as reading for pleasure), monitoring homework and actively tutoring their children at home. Outside the home, parents can serve as advocates for the school. They can volunteer to help out with school activities or work in the classroom or they can take an ac-

tive role in governance and decision-making necessary for planning, developing and providing an education for the community's children (Cotton and Wiklund, 1989).

Epstein (1995) and Gianzero (2001) reported that family practices of involvement are as or more important than family background variables in determining whether and how students progress and succeed in school. No one is more than parents in sending the signals that reading and education matter and that school work is not a form of drudgery but a ticket to a better life. By encouraging their children and assisting on homework, parents can set example for their child, which is powerful and positive (Gianzero, 2001). Henderson and Berla (1997) and Gianzero (2001) asserted that when schools work together with families to support learning, children tend to succeed not just in school, but throughout life. Having recognized the importance of parental involvement in school and academic achievement, the United States government made a declaration in a federal Legislation enacted in 1994. The declaration tagged The Goals 2000: Educate America Act, states "By the year 2000, every school will promote partnerships that will increase parental involvement and participation in the social, emotional and academic growth of children". Utah Education Association (2008) asserted that when parents are involved in their children's education at home, they do better in schools. Conway and Houtenwille (2008) also found that parental involvement has a strong positive effect on student achievement.

Some parents and families are able to be involved in many ways; others may only have time for one or two activities. Whatever the level of involvement, consistency matters a lot as it would make an important difference in the child's life (Utah Education Association, 2008). The cultivation of strong family- school linkages is increasingly and widely viewed as an essential component of strategies to improve students' educational outcomes. While researchers acknowledge a strong direct relationship between Socio- Economic Status (SES) and academic achievement, they also claim that motivated families, regardless of their SES, can and do help their children improve school performance through several types of involvement. Research documenting the effects of parental involvement at home and in school concludes that differences in the achievement levels of working class and middle-class children is more explained by the nature of child-parent and parent-school interactions than by characteristics of SES (Flouri and Buchanman, 2004; Conway, 2008).

A review by Henderson and Berla (1997) of sixty-six studies on the subject of parental involvement concluded that the most accurate predictor of students' achievement in school is not income or social status, but the extent to which families are able to create a home environment that supports learning; communicate high and reasonable expectations for their children's achievement; and become involved in their children's schools. Programmes

designed to foster linkages between families and schools have been shown to help compensate for limited family resources and effectively alter the traditional relationship between SES and school performance. This was corroborated by Flouri and Buchanan (2004) that parental involvement is a more powerful force than other family background variables such as social class, family size and level of parental education.

Research shows that parental involvement in their children's learning positively affects the child's academic performance (Fan and Chen, 2001). Fennstein and Symons (1999) agreed with this and concluded that it works in both primary and secondary schools. Melhinsh et al, (2001) discovered that parental involvement in children's learning leads to higher academic achievement, greater cognitive competence, greater problem-solving skills, greater school enjoyment, better school attendance and fewer behavioural problems at school.

Berkeley Parent Network (2009) asserted that private schools vary widely and level of parental involvement varies from one private school to the other. What is important is for parents to choose private school that has characteristics that match what they are looking for as a family. Parents pay for the cost of educating their children in private school and therefore tend to be more involved in dictating what the school offer than parents whose children are attending public school (Agbatogun, 2009). Mcmillian (2000) also reported that parental involvement on public school is a strong determinant of school performance as measured by students' scores in achievement tests. Thus parents influence the educational process of their children.

The importance of parental involvement can not be over emphasized. To make this completely meaningful, both parents should be involved. Garg et al, (2007) found that youths from single-parent families reported lower educational aspiration than those from two-parent families. Another issue is whether parents are more involved in their daughters' educational progress than their sons'. Olatoye and Ogunkola (2008a, b) reported there is no significant difference between how parents are involved in their sons' and daughters' academic progress. There is also a strong positive relationship between parental involvement and academic achievement.

Despite the evidence about the value of parental involvement, far too many parents continue to lack sufficient information about their children's schools (Gianzero, 1999). Also, the notion that families play a crucial role in their children's development and school success in both the home and school environments elicits a host of questions, all of which carry significant implications (Gianzero, 2001; Olatoye and Ogunkola, 2008). Experts in the field agree about the importance of linkages between families and schools, however, researchers in developed countries should now begin to emphasize the need for more rigorous study to help educators predict the precise outcomes of implementing particular strategies for involving families in children's education. In developing

countries, studies on parental involvement are few; many research reports on this area continue to come from developed countries. Jeynes (2005) argued that there are still questions that the individual studies on parental involvement can not answer because of narrow focus that they had addressed. This study therefore attempted to examine the probable influence of parental involvement on pupils' achievement especially in Mathematics and Science in the primary schools in Ogun State, Nigeria.

RESEARCH HYPOTHESES

Thus, the study was guided by the following research hypotheses:

1. Parental involvement will not significantly influence pupils' achievement in Mathematics.
2. Parental involvement will not significantly influence pupils' achievement in Science.
3. There is no significant relationship between parental involvement and pupils' achievement in Mathematics and Science.
4. There is no significant difference in the parental involvement of pupils in private and public schools.
5. There is no significant difference in parental involvement of male and female pupils.
6. There is no significant difference in the academic achievement of male and female pupils in Mathematics.
7. There is no significant difference in the academic achievement of male and female pupils in Science.
8. There is no significant difference in public and private school pupils' achievement in Mathematics
9. There is no significant difference in public and private school student achievement in Science.

METHODOLOGY

Research design

The descriptive survey research design was employed to carry out this study. Since the aim of the researchers was to record, analyze and interpret the existing conditions between the non-manipulated variables, hence the choice of the research design. This design also accommodates generalization of the findings of the study upon the whole population from which only a representative portion was actually studied.

Target population and sample

The target population for the study comprised all the pupils in primary five in Ogun state. Ogun State is one of the 36 states in Nigeria. It has cultural and educational similarities with five other states in the Southwestern region of Nigeria. The schools in Ogun state were stratified into private and public schools. A random sample of 480 pupils from 30 primary schools - 15 private and 15 public schools - were used for the study. A random sample procedure was used to select private and public primary schools from the list of schools in the State. Equal number of public and private schools was chosen. From each of these selected schools, sixteen (16) pupils were randomly selected to make a total of four

Table 1. Influence of Parental involvement on Mathematics achievement of primary school pupils.

R = 0.402, R² = 0.161, Adjusted R² = 0.107						
	Sum of squares	Df	Mean square	F	Sig.	Remark
Regression	483.949	1	483.949			
Residual	7515.449	478	15.723	30.780	.000	Significant
Total	7999.398	479				(p < 0.05)

hundred and eighty (480) respondents that constituted the sample for this study. The average age of the pupils is 10.1 years.

Instrumentation

Three instruments were used to collect data for this study. The first was a self- designed questionnaire named Parental Involvement Questionnaire (PIQ); which was made up of two sections, with section A comprising of ten (10) items designed to find out some personal information such as sex and school type while section B comprised of fifteen (15) items based on the issues raised in the background to the study. The respondents are to choose either Yes or No on each item. This was considered appropriate because of the age, level of education and maturity of the respondents, being primary school pupils. The researchers and their assistants helped the respondents in interpreting the items and ticking their chosen responses.

The other instruments- Mathematics Achievement Test (MAT) and Elementary Science Achievement Test (ESAT) were also designed by the researchers. They are Multiple Choice Objective tests in Mathematics and Elementary Science respectively. Each of the instruments contained twenty items with four options to each item, from which the respondents were to select whichever they deem as the best option.

Examples of items on PIQ:

- i. My parents/guardians always check my take-home assignments.
- ii. My parents/guardians come to my school regularly to find out my academic progress.

Examples of items on MAT:

- i. A man earns N4, 800 in 8 days. How much does he earn in 6 days?
(a) N2, 6000 (b) N4, 200 (c) N3, 600 (d) N3, 800.
- ii. N500 is shared between Olu and his elder brother, Ojo in ratio 2:3. If Ojo being the elder brother received the higher share. What amount did Ojo receive?
(a) N250 (b) N4,00 (c) N360 (d) N300.

Examples of items on ESAT:

- i. The transfer of trait from parent to offspring is known as
(a) Fertilization (b) Progeny (c) Heredity (d) Conception.
- ii. Air pressure is measured with a.....
(a) Thermometer (b) Raininguage (c) Barometer (d) Sonometer.

The content validity of the questionnaire and achievement tests was ensured through experts' suggestions and guidance. Experts in questionnaire construction and three Mathematics and three Science teachers assisted in critiquing the items on the instruments. Corrections were made on the items of the instruments based on suggestions of experts. The test-retest reliability yielded 0.72, 0.69 and 0.79 coefficients for PIQ, MAT and ESAT respectively.

Data analysis

The data collected with the above described instruments were analyzed using Regression, t-test and Pearson Product-Moment Correlation statistics. All hypotheses were tested at 0.05 level of confidence using a two-tailed test

RESULTS

Research Hypothesis 1: Parental Involvement will not significantly influence pupils' achievement in Mathematics. Table 1 above shows that parental involvement accounts for 16.1% of the total variance in Mathematics achievement of primary school pupils ($R^2 = 0.161$, $p < 0.05$). This percentage is significant at 0.05 level of confidence. It shows that parental involvement is an important predictor of mathematics achievement. However, the results also reveal the fact that there are other factors contributing to pupils' Mathematics achievement other than parental involvement which may account for the remaining variance in Science achievement.

Hypothesis 2: Parental Involvement will not significantly influence pupils' achievement in science. Table 2 shows parental involvement accounts for 13.5% of the total variance in pupils' achievement in Science ($R^2 = 0.135$, $p < 0.05$). This percentage is statistically significant. Although it is obvious from these results that there exist other factors that determine achievement in Science apart from parental involvement. Nevertheless, parental involvement is an important predictor of achievement in science, according to the findings of this study. Thus, to enhance achievement in Science, greater parental involvement in their children's academic activities should be encouraged.

Hypothesis 3: There is no significant relationship among parental involvement, pupils' achievement in mathematics and science. Table 3 presents the correlation matrix among parental involvement, Mathematics and Science achievement. It is revealed that parental involvement has significant relationship with Mathematics achievement ($r = +0.402$; $p < 0.05$), Science achievement ($r = +0.368$, $p < 0.05$). These results imply that parental involvement is important in enhancing pupils' achievement in Mathematics and Science. The higher the parental involvement, the higher the achievement in Science and Mathematics. However, pupils' achievements in Mathematics and Science have the highest significant re-

Table 2. Influence of Parental involvement on Science achievement of primary school pupils.

R = 0.368, R² = 0.135, Adjusted R² = 0.122						
	Sum of squares	Df	Mean square	F	Sig	Remark
Regression	190.421	1	190.421	28.644	.000	Significant (p<0.05)
Residual	3177.660	478	6.648			
Total	3368.081	479				

Table 3. Correlation Matrix of Parental involvement with pupils' achievement in Mathematics and Science.

		Parental Involvement	Mathematics	English language
Parental Involvement	Pearson Correlation	1.000		
	Sig. (2-tailed)			
	N	480		
Mathematics	Pearson Correlation	0.402*	1.000	
	Sig. (2-tailed)	0.000		
	N	480	480	
Science	Pearson Correlation	0.368*	0.690*	1.000
	Sig. (2-tailed)	0.000	0.000	
	N	480	.480	480

*Correlation is significant at the 0.05 level (2-tailed).

Table 4. Comparison of public and private school pupils' parental involvement.

School type	N	Mean	Standard deviation	Df	t-cal	Sig	Remarks
Public	240	11.7928	2.48112	478	-9.68	.000	Significant (p < .05)
Private	240	13.4457	1.08355				

lationship ($r = +0.690$; $P < .05$).

Hypothesis 4: There is no significant difference in the parental involvement of pupils in private and public schools. The results presented in Table 4 shows that there exists a significant difference in the parental involvement of public and private primary school pupils ($t = -9.68$, $p < 0.05$). This suggests that private school pupils enjoy more parental involvement than their counterparts in the public schools. Therefore, the null hypothesis that there is no significant difference in the parental involvement of public and private school pupils is rejected.

Hypothesis 5: There is no significant difference in the parental involvement of male and female pupils. There is a significant difference in the parental involvement of male and female pupils ($t = 5.087$, $p < 0.05$). Male pupils seemed to be enjoying greater parental involvement in their academic activities than their female counterparts. The null hypothesis is therefore rejected in Table 5.

Hypothesis 6: There is no significant difference in the achievement of male and female primary school pupils in Mathematics. The results in the Table 6 indicate that there

is no significant difference in the achievement of male and female primary school pupils in Mathematics ($t = -0.303$, $p > 0.05$). The hypothesis is therefore not rejected.

Hypothesis 7: There is no significant difference in the achievement of male and female pupils in science. From the results presented in Table 7, it can be deduced that there is no significant difference in the achievement of male and female primary school pupils in Science ($t = 0.500$, $p > 0.05$). The hypothesis is therefore not rejected.

Research Hypothesis 8: There is no significant difference in the performance of pupils in public and private primary schools in Mathematics. From the results of the hypothesis 8 presented in Table 8, it was revealed that there exists a significant difference in the Mathematics achievement of public and private primary school pupils ($t = -12.635$, $p < 0.05$). Private school pupils performed better than their public school counterparts in Mathematics. The hypothesis that there is no difference in the achievement of public and private school pupils in Mathematics is therefore rejected.

Hypothesis 9: There is no significant difference in the

Table 5. Comparison of male and female pupils' parental involvement.

Gender	N	Mean	Standard deviation	Df	t	Sig.	Remarks
Male	235	13.0401	1.68642	478	5.087	.000	Significant ($p < 0.05$)
Female	245	12.0884	2.40207				

Table 6. Comparison of male and female pupils' achievement in Mathematics.

Gender	N	Mean	Standard deviation	Df	t-cal	Sig.	Remarks
Male	235	10.1572	3.91419	478	-.309	.757	Not Significant ($p > 0.05$)
Female	245	10.2762	4.36666				

Table 7. Comparison of male and female pupils' achievement in Science.

Gender	N	Mean	Standard deviation	Df	t	Sig	Remarks
Male	235	7.0033	2.63622	478	.500	.618	Not Significant ($p > 0.05$)
Female	245	6.8785	2.68258				

Table 8. Comparison of public and private primary school pupils in Mathematics.

School type	N	Mean	Standard deviation	Df	t	Sig	Remarks
Public	240	8.0000	3.25535	478	-12.635	.000	Significant ($p < 0.05$)
Private	240	12.0969	3.77096				

achievement of pupils in public and private primary schools in Science. The results of the test made in hypothesis 9 as presented in Table 9 shows that there is a significant difference in the achievement of public and private school pupils in science ($t = -10.120$, $p < 0.05$). Private school pupils performed better than their public school counterparts in Science. The hypothesis that there is no significant difference is therefore rejected.

DISCUSSION

Cotton and Wikelund (1989) asked the question: "Does parent involvement have positive effects on students' achievement?" In answer to that question they found that all the research documents they selected to reflect on the effects of parental involvement on students' academic achievement and other student outcomes overwhelmingly demonstrate that parents' involvement in children's learning is positively related to achievement in all subjects and for all types and ages of students. The findings in this study agree with Cotton and Wikelund that parental involvement significantly influences Mathematics achievement of primary school pupils. This shows that if parents can be involved more with their wards' academic activities especially in Mathematics and Science, the ordeal of mass failure in Mathematics will become a thing

of the past as the interest of the students may be awakened in the subject through motivation and encouragement by their own parents.

It was also discovered in this study that parental involvement is an important predictor of pupils' achievement in Science. This coincides with the finding of Olatoye and Ogunkola (2008) that parental involvements has significant influence on Science achievement which invariably indicates that parental involvement is an important predictor of Science achievement. Also, according to Olatoye and Ogunkola, this finding corroborated many research studies such as Hixon (2006) and Epstein (1995) who also found that parental involvement could help improve student achievement in school.

Cotton and Wikelund (1989) found that the more active forms of parent involvement produce greater achievement benefits than the mere passive ones, that is, if parents receive phone calls, read and sign written communications from the school and perhaps attend and listen during parent-teacher conferences, greater achievement benefits accrue than would be the case with no parent involvement at all. They continued that considerably greater achievement benefits are noted when parent involvement is active. When parents work with their children at home, attend and actively support school activities or even help out in classroom or field trips and so on.

Table 9. Comparison of public and private primary school pupils achievement in Science.

School type	N	Mean	Standard deviation	Df	t	Sig.	Remarks
Public	240	5.7568	1.94595	478	-10.120	.000	Significant
Private	240	7.9884	2.74533				(p < 0.05)

Parental involvement when correlated with pupils' achievement in Mathematics and Science yielded positive and significant correlation revealing how important parental involvement is to achievement of pupils in these core school subjects. It was discovered in this study that parental involvement in public and private schools varies and parents of pupils in private schools are more involved in their ward's schooling than parents of pupils in public schools. This is probably due to variations in the fees committed to children's learning since private schools are expensive while public school is about free compared with the private schools. The variations may also be explained by the likely differences in parent educational qualifications or social economic status. The difference may also be in the level or types of parental involvement, whichever the case; public school pupils' parents should be more alive to their responsibilities.

Parental involvements of male and female pupils were compared and it was discovered that male pupils enjoy more of parental involvement than the female pupils. Conway (2008) on the other hand concluded that parents are more involved with their daughters than sons. This finding contradicted that of Olatoye and Ogunkola (2008) who found that parental involvement for male and female students does not differ in anyway, but in agreement with that of Paulson (1994) who reported that parental involvement predicted academic achievement for boys not for girls.

However, gender was found to have no impact at all on Mathematics achievement as both male and female pupils performed well alike in Mathematics and Science. Olatoye and Ogunkola (2008) also found no significant in male and female student achievement in Science. This opposes the findings of Gorman (2006) that there is a significant difference in favour of male students. This suggests that if care is taken to make the home environment conducive for learning, both male and female students will overcome the scholastic malfunction of this present age.

It was discovered that public school pupils were lagging behind in their performance in Mathematics and Science when they were compared with those in private schools. This finding is supported by Olatoye (2002) and Ogbonna (2007).

Conclusion and Recommendations

Overtime, educators have frequently pointed out the critical role of the home and family environment in determining school success and that earlier in a child's educa-

tional process parental involvement begins, the more powerful the effects will be. Parents and other siblings in the family should seize and harness the influence of involvement to set their wards in motion in order to facilitate better and higher achievement in their school subjects. No one is more than parents in sending signals to their ward on the importance of reading and education through their own examples, assistance and involvement. Parents should not just send their wards to school as a way of getting them free from their aprons for the period while they are away, rather they should see going to school as a way of building the lives of the children and their future too.

Parents should therefore devise means by which they would be involved in the academic activities of their children. There are different types and levels of parental involvement, individual parents and families should start from somewhere and get involved. End should come to era where all a parent does is to supply the needs to keep their children in school, parents should visit schools, involve themselves with school (as much as they can afford) then identify with their young lads as early as possible in their studies.

The schools should also organize orientation and training programmes for parents as such could open their eyes and minds as to how they can be involved, some may possibly be ignorant of just how to help or be involved with their children's studies. An array of programmes should be offered by the schools so that parents no matter their degree of willingness, available time, ability and social economic status will be able to participate in academic activities of their children.

Teachers can specifically pinpoints areas of needs, weakness or strength of a pupil to the parents so that they can work on it as a way of getting them acquainted to how to help the child. This suggests that parents and teachers are to work in collaboration in order to bring the best out of every pupil, as much as possible.

Parents, teachers and the school at large should overcome the age-long gender bias and come to grip with the truth that if all mediating variables are taken care of, boys and girls will both perform well alike and so should start to encourage both male and female pupils to be at their best that gender is not a barrier in Mathematics and Science achievement.

Appendix

Parental Involvement Questionnaire (PIQ)

Instruction: Please assist in responding to the items on

Appendix

S/N	Statement	Yes	No
1.	My parents/guardians always check my take-home assignments.		
2.	My parents/guardians always want to know my academic progress.		
3.	My parents/guardians support me in any academic endeavour I embark on.		
4.	My parents/guardians guide me in the choice of my school subjects.		
5.	My parents/guardians come to my school regularly to find out my academic progress.		
6.	My parents/guardians ask from me relevant materials I need for my school work and try to provide them for me.		
7.	My parents/guardians pay my school fees and other fees promptly.		
8.	My parents/guardians always call me to ask questions about what is happening in my school.		
9.	My parents/guardians participate actively in activities involving parents and teachers in my school.		
10.	My parents/guardians encourage me to read always.		

this questionnaire as they apply to you by ticking (✓) in the appropriate column the level of your agreement to each item. There is no right or wrong answer. Your responses will be treated with utmost confidentiality.

REFERENCES

- Agbatogun AO (2009). School Factors as Predictors of Junior Secondary School Students' Attitude towards Schooling and Academic Achievement in Social Studies. An Unpublished MEd Dissertation, Institute of Education, Olabisi Onabanjo University, Ago Iwoye.
- Alebiosu KA (2003). Readings in Science Education. Ibadan: Majestic Printers and Publishers.
- Berkeley Parents Network (2009). Parent involvement private schools. Available <http://parentsberkeley.edu/recommend/schools/parentinvolve.html>
- Conway KS, Houtenville A (2008). Parental Effort, School Resources, and Student Achievement, *J. Human Res.*, (Spring). Available at http://www.unh.edu/news/cj_nr/2008/may/lmw27pa-rents.cfm
- Cotton K, Wiklund KR (1989). Parent Involvement Education. *School Improvement Research Series (SIRS) Journal*. Retrieved from: <http://www.nwrel.org/scpd/sirs/3/cu6.html>
- Epstein JL (1995). School –Family-Community Partnerships: Caring for the children we share. *Phi Delta Kappan* 76(9): 701-712.
- Fan X, Chen M (2001). Parental Involvement and Students' Academic Achievement: A meta- analysis. *Educ. Psychol. Rev.* 13: 1-22.
- Fennstein L, Symmons J (1999). Attainment in Secondary, School. *Oxf. Econ. Papers* 51: 300-321.
- Flouri E, Buchanan A (2004). Early fathers' and mothers' Involvement and Child's later educational outcomes. *Br. J. Educ. Psychol.* 74: 141-153.
- Garg R, Melanson S, Levin E (2007). Educational aspirations of male and female adolescents from single-parent and two biological parent families: A comparison of influential factors. *J. Youth Adolesc.* 36(8): 1010-1023.
- Gianzero G (2001). Promoting Parental Involvement, Improving Student Outcomes. A working paper prepared for San Diego Dialogue. Retrieved from <http://www.sandiegodialogue.org/pdfs/parentalinvolvement.doc.pdf>
- Gorman L (2006). Teacher and the gender gaps in student achievement, US: National Bureau of Economic Research.
- Henderson A, Berla N (1997). A New Generation of Evidence: The family is critical to student Achievement. Washington, D.C.: Center for Law and Education.
- Hixon J (2006). Critical Issues Supporting Ways Parents and Families can become involved in Schools. Cambridge: Harvard Family Research Project.
- Hudson T (1993). Developing Pupils' skills in Language, Teaching English Language, Lagos: Success Publishers.
- Jeynes WH (2005). Parental Involvement and Student Achievement: A Meta Analysis. Downloaded from: <http://www.hfrp.org/publications/resources/browse-ourpublications/parental-involvement-and-student-achievement-a-meta-analysis>.
- McMillian R (2000). Competition, parental involvement in and public school performance. Toronto: National Tax Association.
- Melhinsh E, Sylva C, Sammons P, Siray-Blatchford I, Taggart B (2001). Social, Behavioural and Cognitive development at 3-4years in relation to family background. The effective provision of pre-school education, EPPE project. DFEE: London: The Institute of Education.
- Ogbonna FN (2007). Influence of Parental Involvement and Self Concept on Science Achievement of Junior Secondary School Students in Ogun State. A prefield Research Proposal presented at the Re-search Seminar of the Institute of Education, Olabisi Onabanjo University, Ago-Iwoye on September.
- Olatoye RA, Ogunkola BJ (2008). Parental Involvement, Interest in Schooling and Academic Achievement of Junior Secondary School Students in Ogun State, Nigeria. *College Teach.* Available at: [www.cluteinstitute.com/Methods/Styles/J.4\(8\):33-39](http://www.cluteinstitute.com/Methods/Styles/J.4(8):33-39)
- Olatoye RA, Ogunkola BJ (2008b). Parental Involvement, motivation for Examination and Science Achievement of Junior Secondary School Students. Available at: www.intellectbase.org. *Rev. Higher Educ. Self-Learning* 2(1): 11-18
- Olatoye RA (2002). A causal model of School factors as determinants of Science Achievement in Lagos State Secondary Schools. An unpublished Ph.D. Thesis, University of Ibadan, Ibadan.
- Olutusun LO (2007). Predictive Validity of Mathematics Scores on Students' Achievement in Physics and Chemistry in Senior Secondary Schools in IjebuOde LGA. A Prefield Research Proposal presented at the Research Seminar of the Institute of Education, Olabisi Onabanjo University, Ago Iwoye on September.
- Oyediji OA (1999). Teaching for Innovation. Ibadan: Lade-Oye Publishers.
- Paulson SE (1994). Parenting Style and parental involvement: Relations with adolescent achievement. *Midwestern Educ. Res.* 7(1): 6-11.
- Solarin MK (2005). Teachers' Instructional Strategy Preference in Science Teaching in some Secondary Schools in Ogun State. A Prefield Research Proposal presented at the Research Seminar of the Institute of Education, Olabisi Onabanjo University, Ago Iwoye on 15th November.
- Utah Education Association (2001). Parental Involvement Strongly Impacts Student Achievement, New Research Finds. Available at http://www.wnh.edu/docs/Conway_Conway_May08.pdf.