PARENT RELATED FACTORS ON LOWER PRIMARY SCHOOL PERFORMANCE IN BASIC SCIENCE OF PUPILS IN IBADAN NORTH LOCAL GOVERNMENT AREA, OYO STATE, NIGERIA

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ABSTRACT

Introduction: This study investigated some parental-related factors, which are interest in science, parental involvement, and parents’ job specialization as determinants of lower primary pupils' performance in basic science in Ibadan.

Purpose: The study sought to examine some of the parental-related factors that could affect lower primary pupils in basic science.

Methodology: An ex-post facto Comparative research design was adopted for the study. Random Sampling Technique was used to select five (5) the primary schools and pupils in Ibadan. A total of ninety six (96) pupils were randomly selected to give their parents the questionnaire to fill and the same pupils’ academic records in Basic Science were collected from the schools. Also, two (2) instruments were used: the first instrument titled; Parents' interest in science Questionnaire (PISQ) and the second one titled; Parental Involvement Questionnaire (PIQ). The validity and reliability indexes for PISQ and PIQ are 0.70 and 0.76 respectively.

Result: Findings showed that parents are interested in science to some extent and there was no significant composite contribution of the independent variables (interest in science, parental involvement and job specialization) on lower primary pupils’ performance in Basic Science. Additionally, none of the parental factors considered in the study had a significant relative contribution to the academic performance of lower primary pupils in basic science.

Conclusion and Recommendations: Recommendations made were: provision of educational enlightenment programs to increase parental interest in science in order to enhance children learning science.

Keywords: Interest in Science, Job Specialization, Parental Involvement, Primary Pupils.

Cite paper as:
PUBLIC INTEREST STATEMENT

Basic science at the lower primary level sets the foundation for learning science at higher levels of education. Findings from this study would contribute to the existing body of knowledge in the educational sector; and will further promote science. In particular, it would provide empirical information on how parental factors, such as job specialization, interest in science, and parental involvement/influence lower primary pupils’ performance in basic science. It would also give more insight to parents, teachers, and education policy makers among other sectors in the education of primary school pupils as well as proffer solutions to likely challenges that confront pupils’ in Basic Science.

INTRODUCTION

Education in general, is a way of teaching, training and learning; which helps to build, enhance knowledge and develop skills, in determining the growth and development of an individual and society. In a broad perspective, Satish and Sajjad (2013) stated that education is a life-long process; life is a continuous process of growth and development. For the individual, Umoh 2006; Agogbua, Amobi, and Anyaeji (2021) noted that education helps the individual to develop physically, mentally, morally, emotionally, and spiritually. In this regard, primary education serves as a stepping-stone, along educational ladder, for higher levels of education. In the National Policy on Education, primary education refers to education given to children aged 6 to 12 years (Ministry of Education, FRN 2013). One of the objectives of primary education is to lay a solid basis for scientific, critical, and reflective thinking (Ministry of Education, FRN, 2013). This objective can be achieved by exposing pupils to Basic Science.

The growth of any nation can be linked to its level of science education. Akpan (2017) opined that a way to achieve sustainable development is through science education which should be given cognizance in Nigerian schools; as it adds to the quality of life in areas such as health, agriculture, transportation, and industrial development. In line with this, Aina (2013) considered science subjects (Biology, Physics, Chemistry and Agriculture) as a discipline and the procedures involved in the teaching and learning in the field of science education. The National Policy on Education (NPE) emphasized the importance of science and technology education at all levels; at the primary school level, the objective of science education is to lay a solid knowledge in scientific and reflective thinking (FME, 2013).

The role of parents in science learning has been traced to be the determining factor that has a major impact on motivation to learn science and science attainment (National Science Teachers Association, 2009). Marjoribanks (2007) mentioned that children observe, imitate and associate with parents who serve as role models as it pertains to attitude, behavior, skills and knowledge. Differences in children’s performance on the tasks learned and achieved are shaped by the learning environment at home. It was further distinguished on the premise that parental experiences are influenced in two major ways when a child learns: distal parental status which includes educational level of parents, socio-economic conditions, cultural background are factors that affect a child’s performance and proximal parental background such as provision of educational resources, support for the child’s education, and future plans. However, the latter can be achieved to promote children’s educational outcomes. In relation to learning science, parents can model an 'achievement orientation' by making provision for educational resources and experiences at home aimed at stimulating and promoting the choice of science-oriented occupations. As the world has become more driven by science and technology, it is crucial that people become more scientifically literate (National Science Foundation, 2010).

Although, different studies in different part of Nigeria have reported poor student performance in basic science.

Olaoye T.V., Awogbeja, M. D. (2023)
(Olatoye & Babalola, 2011). With the challenges that currently denigrate the educational system in the country, there is no gain stating that it is difficult to get the best from the system. (Kibet, 2012; Amukowa, 2013) indicated that school-based factors such as; availability and use of teaching/learning facilities, socio-economic status of the parents; student factors (motivation and attitude), school type and the teachers’ characteristics among others are factors that contribute to learners’ poor performance in science subjects. However, these scholars did not consider parent-related factors that may influence learners’ performance in Basic Science.

The Ecological System Theory regarded the development of human as influenced by various types of environmental factors propounded by a widely known American psychologist Urie Bronfenbrenner (Berk, 2000). The theory explains the environmental and social relationships that affect the development of a child. It claimed that throughout lifespan, we encounter various environments that might influence our behaviour which was characterized into five concentric system; microsystem, mesosystem, exosystem, macrosystem and chronosystem. Of these systems, the microsystem layer is the closest to the child and contains structures that directly impact the child. It revolves around the inter-relationships a child has with the immediate environment. These include the family, school, neighborhood, peers, religious settings, and childcare centers. For example, a child’s parents may affect his beliefs and behavior. He states that as a child develops, the interaction within these environments becomes more complex as the physical and cognitive domains mature.

The issue of when parenting actually commence in caring for the child, has been a contentious one. Following the importance and importance of education at primary level, the performance of pupils at this level; particularly in basic science, is crucial, given the level of necessity attributed to science and technology in this present day; and Nigeria in particular. As noted, the role of parents in science learning have been directed to be a key influence on the motivation for science learning and science achievement (National Science Teachers Association, 2009). In museum settings, parents have been found to adopt one of two views: an indifferent position (to observe alone) or monitory stance such that they regulate or stop play by making remarks like ‘awe don’t have all day’ (Wood & Wolf, 2010). Science museums and science centers can facilitate parental participation by providing explicit guidance and support. They can help parents to understand the relevance of supporting their children’s learning, including how to engage with their children when asking questions.

This study particularly directs attention to parent related factors such as parents’ interest in science, parental involvement, parents’ job specialization. On parent interest in science, the National Teachers Association (NSTA, 2009) opined that in children learning, interest, and involvement of parents in their wards education is vital for them to develop interest in and ability to learn science. Individuals who have keen interest in science and technology take pleasure in science-related topics and love to work around it outside of academic settings. (Krapp & Prenzel, 2011). The term interest and performance are crucial educational aims. Georgiou (2010) revealed that the performance of a child’s in school is related to the attributing behaviour of parents; they can portray a positive or negative attitude toward science. Parents who want their children to study science can encourage that, through the selection of toys, visits to museums, and talk about topics and problems that revolve around science.

Parental involvement is another key factor in determining the performance of the pupils in basic science. To the child, the parents are the first primary source of social support. They are considered the child’s first teacher. Angion (2009) observed that parental support relates to child verbal communication, intellect, socioemotional development, and achievement. Parental involvement can be school-based and home-based. School-based parental involvement entails activities parents engage in such as; volunteering at school, participating in
Parents Teachers Association (P.T.A) meetings, communicating with teachers and other personnel, while activities outside of school (Thuba 2017), such as creating a place for children to study, helping children complete homework, and taking their children to visit the museum are considered home-based parental involvement.

The Multilingual Academic Journal of Education and Social Sciences (2015) reported, the necessary educational resources needed for academic success cannot be provided for children who come from less privilege homes. Therefore, it is crucial to state that socioeconomic status in terms of provision of educational materials plays a significant role and impact on the child’s educational outcome. The specialization of parents’ job is in particular related to the educational and occupational specialization of parents. This factor is important to consider in this study given its probable influence on the performance of pupils in science. The influence of socioeconomic status on parents’ engagement, studies have shown that low-income families encounter hurdles like financial difficulty, time-consuming job, weaker pedagogical abilities, and limited connections with schools and instructors (Tan, Lyu & Peng, 2020).

Ibrahim (2017) in his work on socio-economic status of parents and the education of children reported that parents with high occupational status provide necessary facilities regarding their children education. He mentioned that parents with a less prestigious occupation are unable to make provisions to support their children education, which leads to poor academic performance. The link between prestigious occupation and income level, according to Ibrahim, is strong and can have a lasting impact on the outcomes of student education career throughout the elementary, middle and secondary years (Omar & Hussain, 2021). It is on this note that this study sought to direct attention to factors related to Parents as a determinant of the performance of lower primary students in basic science in the Ibadan North Local Government Area, Oyo State, Nigeria, to determine the level of performance of pupils in basic science and the degree of parental interest in science and their level of involvement.

**STATEMENT OF THE PROBLEM**

Several studies have indicated that parents fail to play their rightful role in the education of their children. However, parents-child interaction, with specific attention to stimulating and responsive parenting practices, has shown to be of positive impact on the academic performance of pupils (Moroni 2015; Bjorgvindottir & Halldorsdottir, 2014). These days, parents are often faced with the challenges of meeting their children’s needs due to various factors such as busy schedules at work, level of education, low socioeconomic status, type of job, insufficient time, attending PTA meetings, which this study aims to examine, perception of participating in school activities, among others.

However, most studies have traced the level of academic performance to several factors in relation to; school-based, socio-economic, teacher’s characteristics, and school type with little or no consideration of parental factors. This study, therefore investigated how parent-related factors such as; parent’s interest in science, parental involvement and parents’ job specialization influences lower primary pupils performance in Basic Science.

**PURPOSE OF THE STUDY**

1. Find the level of pupils’ performance in Basic Science.
2. Determine what extent are parents interested in Science.
3. Evaluate the level of parental involvement in the education of their children.
4. Determine the relative contribution of each of the three independent variables (interest in science, parental involvement and parent specialization) on lower primary pupils’ performance in Basic Science?

**RESEARCH QUESTIONS**

1. What is the level of pupils’ performance in Basic Science of pupils in Ibadan north local government area, Oyo state?
2. To what extent are parents interested in the science of pupils in Ibadan north local government area, Oyo state?
3. What is the level of parental involvement in the education of their children?
4. What is the relative contribution of each of the three independent variables (interest in science, parental involvement, and parent specialization) to lower primary students’ performance in basic science?

METHODOLOGY

Research design

For this study, ex-post facto research design was adopted. The design is considered appropriate for the educational study because of its relevance to the objectives. By this design the extent to which the independent variable affects the dependent variable is assessed. It also allow hypothesis testing; in other to locate a cause and effect relation (Akinlua, 2020 Causal or Experimental Research Designs, 2015).

A subsequent data analysis of the study, parent related factors (interest in science, parental involvement and parent specialization) are examined in other to determine how such factors affects pupils’ performance in Basic Science.

Population and sample

The study was carried out in five (5) selected government (public) primary schools of Ibadan North Local Government Area, Oyo State. The study covered lower primary pupils in Basic three; the subject of focus for the study is pupils’, performance in Basic Science; while the parent-related factors under consideration were parents’ interest in science; parental involvement and parents’ profession. Five public schools were randomly selected and 20 students were also randomly selected from each of the schools by balloting. One hundred (96) pupils’ were selected to give their parents the questionnaire to fill and the same pupils’ academic records in Basic Science were collected in the school.

Instrument for Data Collection

For this study, two research instruments were used to collect data from the field. The first instrument is titled 'Parent Interest in Science Questionnaire'. It contained two sections: Section A obtained information on the Demographic Information on Parent’s Gender and Job Specification. Section B assessed Parents’ Interest in Science. This instrument was adapted from (Parent Questionnaire for Pisa, 2006) which consists of ten (10) research question items in a Likert scale with four (4) options; 1=Not at all, 2=Rarely, 3=To some extent, 4=To a great extent; while the second instrument is titled Parental Involvement Questionnaire, adapted from (Voydanoff & Donnelly, 1999) which, also comprises of four (4) options; 1=Never, 2=Sometimes, 3=Often and 4=Always. The performance of the pupils in basic science was determined by their academic records in basic science. The instrument was subjected to face and content validity. Copies of the questionnaire were made available to experts in Early Childhood Education; and their comments and suggestions were incorporated into the final drafts.

The reliability was achieved by administering the instruments in a pilot study; conducted in Akinyele Local Government Area (also in Oyo state. different from the planned survey area. Cronbach’s Alpha Technique was used to further determine the reliability coefficient. The reliability index for the first instruments interest in science was 0.70 while for parental involvement was 0.76. Therefore, the instruments were considered valid and reliable.

Procedure of Data Collection

The researchers administered copies of the questionnaire of Basic 3 pupils’ in the 5 selected schools for the study to give to their parents. The same pupils’ first term to third term academic records were collected and compiled for the determination of their performance in Basic Science. The questionnaires which was distributed to the pupils to be filled by their parents were collected the second day.
Method of data analysis
The collected data were subjected to descriptive statistics of frequency counts, percentages, mean and standard deviation were used to analyze research question one to three, while inferential statistics of multiple regression used to analyze research question four and five.

RESULTS

Research Question 1: What is the level of pupils’ performance in Basic Science in Ibadan North Local Government Area, Oyo State, Nigeria?

Table 1: Level of pupils’ performance in Basic Science

<table>
<thead>
<tr>
<th>Gender pop. of pupils</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>36</td>
<td>60</td>
<td>96</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Academic Performance</th>
<th>0-49 (below average)</th>
<th>50-59 (average)</th>
<th>60-69 (above average)</th>
<th>Above 70 (excellent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>38</td>
<td>11</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>15.62</td>
<td>39.58</td>
<td>11.46</td>
<td>33.33</td>
</tr>
</tbody>
</table>

Total 96 100

Source: Field survey: 2018

The result of gender distribution of students revealed that 36(37.5) of the pupils were male and 60 (62.5%) were female. This occurred as a result of the fact that male student are lesser than female students in the classroom in the study areas (Table 1). This supports the study by Doris-Sasu (2019) who reported that the number of children enrolled in public primary schools by gender represented more females over 10 years of age.

The result of the level of pupils’ academic performance in basic science shows that more than 84% of the respondents falls within and above average while only 15 (15.62%) of the student often scored below average. This is contrary to the report of Obasi (2007) which also stated that the enrollment and performance of students in Basic Sciences create a worrisome atmosphere. Studies have shown that girls outperformance and boys’ low performance in education appears to be a global trend (Hazir & Raza, 2019).

Research Question 2: To what extent are parents interested in the science of pupils in Ibadan north local government area, Oyo state?
Table 2: Showing the extent of parents' interest in science and science subjects.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I enjoy helping my child/children with basic science homework/project</td>
<td>16 (16.66)</td>
<td>15 (15.62)</td>
<td>22 (22.91)</td>
<td>43 (44.79)</td>
</tr>
<tr>
<td>2</td>
<td>I do not like watching TV programmes about science</td>
<td>39 (40.62)</td>
<td>20 (20.83)</td>
<td>22 (22.91)</td>
<td>15 (15.62)</td>
</tr>
<tr>
<td>3</td>
<td>I find reading scientific books interesting.</td>
<td>19 (19.79)</td>
<td>12 (12.5)</td>
<td>24 (25.0)</td>
<td>41 (42.70)</td>
</tr>
<tr>
<td>4</td>
<td>Visiting websites about science topics is boring</td>
<td>53 (55.20)</td>
<td>21 (21.87)</td>
<td>14 (14.58)</td>
<td>8 (8.33)</td>
</tr>
<tr>
<td>5</td>
<td>I encourage my child/children to be interested in science because I love science</td>
<td>18 (18.75)</td>
<td>13 (13.54)</td>
<td>15 (15.62)</td>
<td>50 (52.08)</td>
</tr>
<tr>
<td>6</td>
<td>I enjoy science because it is very relevant to me</td>
<td>13 (13.54)</td>
<td>12 (12.50)</td>
<td>29 (30.20)</td>
<td>42 (43.75)</td>
</tr>
<tr>
<td>7</td>
<td>Science is beneficial to the society</td>
<td>11 (11.45)</td>
<td>9 (9.37)</td>
<td>15 (15.62)</td>
<td>61 (63.54)</td>
</tr>
<tr>
<td>8</td>
<td>Playing computer games with science content is something I find boring</td>
<td>33 (34.37)</td>
<td>33 (34.37)</td>
<td>19 (19.79)</td>
<td>11 (11.45)</td>
</tr>
<tr>
<td>9</td>
<td>I do not enjoy taking my child/children to scientific sites such as museums, zoological gardens and botanical gardens</td>
<td>45 (46.87)</td>
<td>18 (18.75)</td>
<td>21 (21.87)</td>
<td>12 (12.50)</td>
</tr>
<tr>
<td>10</td>
<td>I am not always interested in my child’s/children's performance in science</td>
<td>46 (47.91)</td>
<td>18 (18.75)</td>
<td>15 (15.62)</td>
<td>17 (17.70)</td>
</tr>
</tbody>
</table>

Note: 1= Agree 2= Strongly Agree, 3= Disagree and 4= Strongly Disagree

Values in brackets shows percentage of respondent

The result of the extent to which parents are interested in basic science is shown in Table 2: From the result, it can be deduced that the majority of parents enjoy giving support to their children with basic science assignments (44.79% strongly agree and 22.91% agreed). Also, more than 60% of the parents likes to watch TV programs on science and love to read scientific books. Furthermore, more than 76% of parents opined that visiting scientific websites can be interesting and often encourages their children to do so, because of their special love for science subjects. Justifying the reason for their special interest in science, over 70% of the parent respondents enjoy science because of its relevance to their personal life and its series of benefits to the society. In addition, most of these parents enjoy playing scientific games with scientific contents. And as such, like to take children to scientific sites including museums, geological gardens and botanical gardens. Their pupil's performance in science subjects is of a special interest to most of them. (Table 2).

Research Question 3: What is the level of parental involvement in the education of their children?
The result of parental involvement in the education of their children shows that 70% of parents get in touch with science teachers of their wards in their respective schools to monitor and inform about their progress. As part of their commitment they often attend Parent Teachers Association (PTA) meetings and other events including sports, prize giving day etc. any time the school calls for such. Generally, these parents guide their children in their homework. However, only a few parents are involved in voluntary service for the school when the need arises, and more than 60% are not financially committed to excursion. In addition, most parents participate in friendly discussions with other parents. Only few parents did not request for feedback regarding their children performance in school. However, majority of the parents contribute to special school project pertaining to their wards. Notable is that few of these parents do not buy educational books for their children (Table 3).

**Research Question 4:** What is the relative contribution of each of the three independent variables (interest in science, parental involvement and parent specialization) on lower primary pupils’ performance in Basic Science?

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### Table 3: Level of parental involvement in the education of their children

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I talk to my child/children's teacher about their progress in school</td>
<td>11 (11.45)</td>
<td>17 (17.70)</td>
<td>21 (21.87)</td>
<td>47 (48.95)</td>
</tr>
<tr>
<td>2</td>
<td>I attend PTA or other school meetings</td>
<td>7 (7.29)</td>
<td>32 (33.33)</td>
<td>11 (11.45)</td>
<td>46 (47.91)</td>
</tr>
<tr>
<td>3</td>
<td>I attend school sporting events, prize giving day or other school events</td>
<td>15 (15.62)</td>
<td>28 (29.61)</td>
<td>23 (23.95)</td>
<td>30 (31.25)</td>
</tr>
<tr>
<td>4</td>
<td>I help my child/children with homework/project</td>
<td>12 (12.50)</td>
<td>17 (17.70)</td>
<td>6 (6.25)</td>
<td>61 (63.54)</td>
</tr>
<tr>
<td>5</td>
<td>I volunteer in my child/children’s school</td>
<td>21 (21.87)</td>
<td>20 (20.83)</td>
<td>15 (15.62)</td>
<td>40 (41.66)</td>
</tr>
<tr>
<td>6</td>
<td>I pay my child/children excursion fee</td>
<td>13 (13.54)</td>
<td>22 (22.91)</td>
<td>11 (11.45)</td>
<td>50 (52.08)</td>
</tr>
<tr>
<td>7</td>
<td>I discuss with other parents about my child/children academic performance</td>
<td>38 (39.58)</td>
<td>25 (26.04)</td>
<td>4 (4.16)</td>
<td>29 (30.20)</td>
</tr>
<tr>
<td>8</td>
<td>I request for feedback about the performance/ action of my child/children in school</td>
<td>14(14.58)</td>
<td>17 (17.70)</td>
<td>22 (22.91)</td>
<td>43 (44.79)</td>
</tr>
<tr>
<td>9</td>
<td>I contribute to special school projects in my child/children school</td>
<td>14 (14.58)</td>
<td>40 (41.66)</td>
<td>14 (14.58)</td>
<td>28 (29.16)</td>
</tr>
<tr>
<td>10</td>
<td>I buy educational books for my child/children</td>
<td>7 (7.29)</td>
<td>12 (12.50)</td>
<td>13 (13.54)</td>
<td>64 (66.6)</td>
</tr>
</tbody>
</table>

3) Note: 1= Agree, 2= strongly agree, 3= disagree and 4= strongly disagree
(Values in brackets shows percentage of respondent)
Table 4: Regression showing the Relative Contribution of each of parents on lower Performance of Primary Pupils’ in Basic Science.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficient</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>62.092</td>
<td>9.690</td>
<td>5.462</td>
</tr>
<tr>
<td>Interest in science</td>
<td>0.411</td>
<td>0.281</td>
<td>0.161</td>
</tr>
<tr>
<td>Parental Involvement</td>
<td>-0.257</td>
<td>0.336</td>
<td>-0.120</td>
</tr>
<tr>
<td>Job Specialization</td>
<td>-2.219</td>
<td>2.809</td>
<td>-0.079</td>
</tr>
</tbody>
</table>

The regression result shows the relative contribution of each of the three independent variables (Interest in Science, Parental Involvement and Job Specialization) on Lower Primary Pupils’ Performance in Basic Science (Table 4) It was discovered that parental involvement and parents’ job specialization have no relative significant contribution to the academic performance of primary school pupils' in basic science ($\beta=-0.16$; t= 1.46 $p>0.05$), ($\beta=-0.12$; t= -1.09 $p>0.05$), ($\beta=-0.08$; t= -0.79 $p>0.05$).

DISCUSSIONS

From the result, it was noted that the level of lower primary pupils’ performance in Basic Science is average. The result of the study disagrees with the findings of (Olatoye, 2004) that pupils’ performance in science both at the internal and external examinations, was poor. It was revealed also in the result, that parents are often involved in the education of their children. It agrees with the findings of (Green, 2007), that parents are often involved in their children education and other aspects of their lives. Over the years, findings have demonstrated that parent’s involvement in the education of the children is beneficial to all parents, children, and schools (Gina & Ronel, 2014). According to Samuel et al (2015) in a magazine report of 2002, six types of programmes could be utilized by schools to build strong parental skills. These are: school can assist families with parenting and child-rearing skills; schools can communicate with families about school programmes and students’ progress and needs; work to improve families as volunteers in school activities; encourage families to be involved in learning activities at home; include parents as participants in important schools decisions, and coordinate with business and agencies to provide resources and services for families, student, and the community this will to a large extent aid student performance in science subjects.

On a standardized exam, children of literate parents outperform those of uneducated parents, according to Mauka (2015). This is because literate parents are capable of assisting their children with their academic work and engagement in school activities (Walker et al, 2021). Hence, the pupil’s academic performance is dependent upon the parent-school bond.

Another key findings of the study showed that parents are interested in science to some extent. A study reported that parents in science-oriented occupation give greater encouragement to their children to learn science (Sloden, 2011). In addition, parents with positive attitudes towards science tend to have higher educational and occupational
science aspirations (Dewitt, 2013). According to Hussain, 2021, parents’ occupation as well as their socio-economic status plays a significant role in providing these educational resources and impose greater impact on the child's educational outcomes. It was revealed also in the findings that the parental factors (interest in science, parental involvement and parents’ job specialization) have no significant relative contribution to the academic performance of lower primary pupils' in Basic Science. Also, it disagrees with Pandey & Thapa (2017) that even though school factors have dominant effect on pupils' performance in Science, some parental factors can have a positive influence on their achievement.

CONCLUSION

Based on the result of the study, it can be concluded that the level of pupils' performance in Basic Science is average. The composite contribution of parent-related factors (interest in science, parental involvement, and job specialization) on pupils' performance in basic science was not significant. It was also indicated that parents’ interest in science, parental involvement and parents’ job specialization have no significant relative contribution to the academic performance of primary pupils’ in basic science. Furthermore, majority of parents were interested in science and are often involved in the education of their children.

RECOMMENDATIONS

The following recommendations were made based on the findings of this study:

1. At the federal, state, and local government levels, educational enlightenment programs should be provided with a focus on the importance of science to increase parental interest in science to enhance children’s learning science.
2. The government should consider other factors such as home, school, and learners’ factors, to mention but a few that could determine lower primary pupils' performance in basic science.
3. Teachers should also encourage all lower primary pupils to perform above average in basic science. This could be done by using a variety of teaching methods to teach primary Science.
4. More efforts should be made by conducting the same research in other parts of Nigeria, using more parents and pupils ' academic records in Basic Science so that more general validation could be made.
5. Furthermore, all other variables that were not considered in the course of the research such as teacher factors, learner factors, and home factors, among others could be investigated.

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