PARENTAL DEMOGRAPHIC VARIABLES AS FACTORS INFLUENCING PUPILS' PERFORMANCE IN MATHEMATICS IN SELECTED PRIMARY SCHOOLS IN ZARIA LOCAL GOVERNMENT: IMPLICATION FOR SCHOOL COUNSELLING

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Abstract

This study investigated the influence of Parental Demographic Variables on Pupils' performance in Mathematics in selected Primary Schools in Zaria Local Government, Kaduna State. The study adopted survey research design while simple random sampling was used to select 140 primary six pupils as sample for the study. Three research questions were answered. The instrument used for data collection was a self-designed questionnaire. The instrument was titled "Parental Influence and Mathematics Learning Questionnaire (PIMLQ). The instrument was pilot tested using twenty pupils from two schools different from those selected for the study. The reliability index obtained was 0.69 using Cronbach alpha coefficient. The responses were analyzed using frequency counts and percentages. The study found that parental occupation, their educational attainments significantly affect pupils' performance in Mathematics but parental socioeconomic status not necessarily affects pupils performance in Mathematics. The study recommended that parents should support their children in their learning of Mathematics irrespective of their occupation, learned parents should make sure that their educational attainments reflect in their wards' performance in Mathematics and the illiterates should support themselves with those who know in the education of their children while teachers should understand and appreciate the diverse domestic environment of their pupils and should be treated as such.

Key words: Parental demographic variables, Academic performance, Mathematics, school counselling.

Introduction

The importance of parents to the child and his education cannot be overemphasized. This is because from the onset of life, parents are the primary persons that engage in the upbringing of the child and his socialization. They commit all their efforts, abilities and resources in making sure that the child is well trained and nurtured. This is why Usaini and Abubakar (2015) noted that whenever parents possess the resources and skills, they apply them efficiently and joyfully for upbringing of their children. The entire society would benefit, and this brings joy and benefit to the nation and encourages development and peaceful co-existence. The children themselves feel good and bring happiness to their parents and the whole community. Vellymalay (2012) in his own submission stated that a child's capability to succeed in school depends on how successfully the child is managed

by his/her parent in the environment. It is an environment where the child learns skills, attitude and behaviour that could mould them into productive and successful students. It is widely recognized that parents and families are the primary educators of children and are responsible for laying down the social and intellectual foundations for their learning and development. In other words, parents play a highly influential role in their children's development. This is because a person's upbringing has a profound influence on how they see the world and how they process information.

Education is one of the main Millennium Development Goals that African countries including Nigeria needs to achieve. In fact, education achievement is an instrument for eradication of poverty and inequality and as a tool for economic development. This is done through various school subjects among which is Mathematics. Mathematics is a branch of science, which deals with numbers and their operations. It involves calculation, computation, solving of problems etc. Mathematics is the science of measurement, quantity and magnitude'. It is exact, precise, systematic and a logical subject. It has historically developed, through the use of abstraction and logical reasoning, from counting, calculation, measurement, and the study of the shapes and motions of physical objects. Mathematics is around us. It is present in different forms; Right from getting up in early hours of the day to the ringing of an alarm, reading time on a watch, rounding a date on a calendar, picking up the phone, preparing a recipe in the kitchen, manage the money, travel to some places, to exchange currency at a ticket outlet while availing a public conveyance or checking up the mileage of your car, halting at the filling station, attending to a roll call at school, getting scores in the class exams, even meet new friends the list is just endless if one goes on to note down the situations when our computational skill, or more specifically, simple mathematics comes to play a role, almost every next moment we do the simple calculations at the back of our mind. Of course these are all done pretty unconsciously without a thought being spared for the use of mathematics on all such occasions. Mathematics as a subject is imperative for excelling in any field of study and it acts as glue that connects various disciplines together.

Olige (2008) observed that various factors have been examined in relation to students' academic achievements. These factors ranged from family socioeconomic status, family structure, family functioning, peer association, to school and educational environment. Helping children with homework is the most typical form of parental involvement.

A study carried out by Park, Chiang and M. Ju (2010) on why Asian children performed better
academically in American schools revealed that Asian American parents who adhere to traditional Asian values usually utilized parenting behaviors that are incongruent with their children's level of acculturation which is the process of adaption to the attitudes, values, and behaviours of the dominant culture of the host country.

Saifullahi (2011) pointed out that parents' occupations significantly influence students' achievement. He used the data from three different colleges in Gujarat district. The result indicated that children of government employees secured more marks (60.02%) than the

private job holders, because of the certainty and reliability of the government jobs. Parents with government jobs are more secured, and their families are at peace relatively compared to those who work in the private organisation. They are always in frustration and lack of confidence at been permanent. Likewise, occupation of the mother has an influence on students' scores. The result of this study indicated that the maximum percentage of marks that is 64.5% is of students who mothers were government workers. So this seems that both fathers and mothers profession have a significant influence on students' academic achievement.

Farkhanda and Ehtesham (2013) in their analysis of gender and socioeconomic status on the academic achievement of secondary high school students of Luck now a city in India, found out that male and female students perform academically well than their peers from low socioeconomic status. High socioeconomic status parents provide necessary facilities regarding their children education, health and understand their problems related to the adolescent period that affects their academic achievement.

Faisal (2014) in his research conducted to find out the influence of parental socioeconomic status on their involvement in their children's education in Jordan. He revealed that the relationship between parental occupation and parental involvement at home was moderate in some strategies. It shows that parents' with the prestigious occupations are more likely to identify their children's problem to give a possible solution. They also help them to do their homework by providing facilities necessary for learning development. It is possible as a prestigious occupation is connected with income level. Prestigious occupation parents have better income stability that would make it easier for them to make adequate provisions to their children's learning development.

The level of educational attainment of parents could influence the academic achievement of their children. According to European Union Monitoring Report (2013), those students whose parents have a tertiary level of education perform, on average, significantly better in tests of science, reading and mathematical ability than do those whose parents have only basic schooling. Kassim, Kehinde and Abisola (2011) examined the causal-effects of parents' education, profession and mother's age on students' attainments. The results revealed that parents' education has the vital influence on the academic achievement of students. Vellymalay (2010) studied the relationship between parents' education level and their immersion in their children's education. Findings of the study suggested that there were no significant differences between parents' education level and parents' involvement plans for their children's education.

Research Questions

The study sought answer to the following questions:

i. Does the Parental occupation affect pupils performance in Mathematics?
ii. To what extent do educational qualifications of parents affect their children performance in Mathematics?

iii. Has parental socioeconomic status has effect on pupils' performance in Mathematics?

Methodology

Descriptive survey design was adopted for the study because the researcher did not manipulate any variable. The population of the study consisted of all the public primary school pupils in Zaria local government of Kaduna state. However, the researcher adopted simple random sampling technique to select seven primary schools from which twenty pupils were selected from each school which made one hundred and forty participants for the study. The study made use of self designed questionnaire as instrument for data collection from the respondents. The instrument was titled "Parental Influence and Mathematics Learning Questionnaire (PIMLQ). PIMLQ has two sections. Section A sought for Demographic variables of the respondents such as parental occupation, nature of the family, parental educational attainment and socioeconomic status of the parents while section B consisted of items on the influence of parents on Mathematics performance of their wards. Respondents were made to respond to the items through Yes or No. The instrument was validated by two experts in Measurement and Evaluation and Psychology from Federal College of Education, Zaria. Their inputs ensured the appropriateness of the items, in terms of ease of understanding and relevance for the study. The instrument was pilot tested using twenty pupils from two schools different from those selected for the study. The reliability index obtained was 0.69 using Cronbach alpha coefficient. The instrument was administered by the researcher alongside two assistants in each school. The responses were analyzed using frequency counts and percentages.

Results

Table 1: Pupils' response on the influence of Parental occupation and their performance in Mathematics

S/N	Statement	No of Yes	%	No of No	%	Total
1.	My parents show positive concern in my performance in Mathematics because it is related to their professions	96	69	44	31	140
2.	My parents show positive concern in my performance in Mathematics because they are civil servants	89	64	51	36	140
3.	My parents encourage my performance in Mathematics because they want me to take after them in their professions	56	40	84	60	140
4.	My parents encourage my performance in Mathematics because they are traders	90	64	50	36	140

5.	My parents did not show concern in my performance in Mathematics because they are government workers.	92	66	48	34	140

A careful look at the result in table 1 shows that 69% of the respondents believed that their parents show positive concern in their performance in Mathematics because it is related to their professions while 31% disagree with the statement. The table further showed that 64% of the respondents held the opinion that their parents show positive concern in their performance in Mathematics because they are civil servants while the rest (36%) differed in their opinion. Equally, the respondents (64%) agreed on the statements that their parents encourage them in performing well in Mathematics because they are traders while 36% of the respondents disagree. In the same vein, (66%) of the respondents believed that their parents did not show concern in their performing well in Mathematics because they are government workers while 34% of the respondents disagree. However, majority of the respondents (60%) disagree that their parents encourage their performing well in Mathematics because they want them to take after them in their professions. This connotes that parental occupation influences pupils learning of Mathematics.

Table 2: Pupils' response on the influence of Educational Qualifications of their parents and their performance in Mathematics

S/N	Statement	No of Yes	%	No of No	%	Total
1.	My parents do encourage my performance in Mathematics because they are illiterates.	65	46	75	54	140
2.	My parents show positive concern in my performance in Mathematics because they are highly educated	94	67	46	33	140
3.	My parents prefer my performance in Mathematics to other subjects because of their education	76	54	64	46	140
4.	My parents encourage my performance in Mathematics because it is their area of specialization.	87	62	53	38	140
5.	My parents did not show concern in my performance in Mathematics because they did not go to school	59	42	81	58	140

Results from table 2 above shows that majority of the respondents (54%) disagree to the statement that their parents do encourage their performance in Mathematics because they are illiterates while (46%) agreed. Item 2 in the table showed majority of the respondents (67%) agreed to the statement that their parents show positive concern in their performance

in Mathematics because they are highly educated while (33%) of them disagree. In item 3, 54% of the respondents agreed to the statement that their parents prefer their performance in Mathematics to other subjects because of their education while 46% disagree. Equally, majority of the respondents (62%) agree with item 4 which stated that their parents encourage their performance in Mathematics because it is their area of specialization while (38%) disagreed to the statement. However, majority of the respondents (58%) disagree on item 5 which stated that their parents did not show concern in their performance in Mathematics because they did not go to school while (42%) agreed with the statement. The overall result here indicate that majority of the respondents believed that educational qualifications of their parents influence their performance in Mathematics.

Table 3: Pupils' response on the influence of parental socioeconomic status and their performance in Mathematics

S/N	Statement	No of Yes	%	No of No	%	Total
1.	My parents show positive concern in my performance in Mathematics because they are rich	57	41	83	59	140
2.	My parents do not show concern in my performance in Mathematics because they cannot afford the cost	61	44	79	56	140
3.	My parents encourage my performance in Mathematics though poor but struggle to get me needed materials	91	65	49	35	140
4.	My parents discourage my good performance in Mathematics because they are rich but refuse to provide needed textbooks	48	34	92	66	140
5.	My parents did not show concern in my performance in Mathematics because they are jobless.	37	26	103	74	140

Results from table 3 above shows majority of the respondents (59%) disagree with the fact that their parents show positive concern in their performance in Mathematics because they are rich while 41% agreed. Equally, the respondents (56%) disagreed with the statement that their parents do not show concern in their performance in Mathematics because they cannot afford the cost while 44% of them agreed. In addition, respondents (66%) disagree on item 4 which stated that their parents discourage their good performance in Mathematics because they are rich but refuse to provide needed textbooks. Also, respondents (74%) disagree on the statement that their parents did not show concern in their performance in Mathematics because they are jobless. However, majority of the respondents (65%) believed that their parents encourage their performance in Mathematics though poor but struggle to get them needed materials. This connotes that parental socioeconomic status does not influence pupils' learning of Mathematics.

Discussions

The findings on research question 1 which sought to find out if parental occupation affect pupils performance in Mathematics revealed that parental occupation could influence pupils performance in Mathematics. This finding is in agreement with the finding of Saifullahi, (2011) who pointed out that parents' occupation significantly influence students' achievement. This is because according to him, parents with government jobs are more secured, and their families are at peace relatively compared to those who work in the private organisations.

The finding on research question 2 that sought to determine the extent to which the educational qualifications of parents affect their children performance in Mathematics revealed that majority of the respondents believed that educational qualifications of their parents influence their performance in Mathematics. This was supported by the Report of European Union Monitoring (2013) which stated that those students whose parents have a tertiary level of education perform, on average, significantly better in tests of science, reading and mathematical ability than do those whose parents have only basic schooling. Also, the finding is in agreement with Kassim, Kehinde and Abisola (2011) who found out that parents' education has the vital influence on the academic achievement of students. However, the finding disagreed with Vellymalay (2010) whose study suggested that there were no significant differences between parents' education level and parents' involvement plans for their children's education.

The finding on research question 3 which sought to find out whether parental socioeconomic status has effect on pupils' performance in Mathematics. Results of responses from the respondents revealed that parental socioeconomic status does not influence pupils' performance in Mathematics. This is in disagreement with Farkhada (2013) who found out that male and female students perform academically well than their peers from low socioeconomic status. High socioeconomic status parents provide necessary facilities regarding their children education, health and understand their problems related to the adolescent period that affects their academic achievement.

Conclusion and Counselling implications

The study examined some parental demographic variables which affect pupils' performance in Mathematics. The study concluded that parental occupation, their educational attainment significantly affect their performance in Mathematics. However, the study revealed that parental socioeconomic status not necessarily affects pupils performance in Mathematics.

The findings of the study revealed some counselling implications not only for the pupils, teachers but also their parents. The results will help to stimulate active involvement of Guidance counsellors to establish effective counselling service in and out of the school setting. Counsellors should advertise their services to the pupils, their parents as well as teachers in order to assist in the management of learning problems. Counselling is a relationship characterized by mutual respect, effective communication, genuine and

complete acceptance of the client by the counsellor and concentration on the needs, problems and feelings of the clients. It is also a relationship that facilitates growth and changes in the client to become more freely and fully functional.

Recommendations

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

i. Parents should support their children in their learning of Mathematics irrespective of their occupation by making necessary provisions needed to enhance learning and good performance in Mathematics.
ii. Parents who are learned should make sure that their educational attainments reflect in their wards' performance in Mathematics and those that are illiterates should support themselves with those who know in the education of their children.
iii. Teachers should understand and appreciate the diverse domestic environment of their pupils and should be treated as such.

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