Effect of Parental Discussion on Child Performance: A Structural Equation Approach

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Abstract

The present research sought to determine relevant parent's activities that constitute parental discussion at home on child education and also to investigate the impact of parental discussion at home on child performances at school. A mixed design strategy was adapted for the study. Primary data was collected using semi-structured interview and a questionnaire from parents of 880 selected basic school pupils across five regions in Ghana. Sampling of respondents in this study employed the use of multi-stage sampling techniques involving, a purposeful sampling of Five (5) Regions, followed by simple random selection of 10 pupils per each grade starting from Grade 1 to 6 in each of three randomly selected schools in each Region. Performance was measured using average scores in Mathematics and English grammar. Data obtained during survey was coded and entered into a SPSS statistical software. Parental discussion construct was measured using six items adopted from the KIPI instrument. The Cronchbach's measure of reliability estimated for the Parental discussion construct was 0.856. A Confirmatory factor analysis technique followed by a path analysis was conducted to determine the effect of the parental discussion construct on the performance of children at school. Results from SEM analysis reveal the model of the study was confirmed as the data showed equivalence to model modifications X^2/ DF < 3.00, GFI >.90, AGFI >.90, NFI > .90, TLI > .90, CFI > .90, RMSEA < 0.07. It was found that parental discussion had a positive and significant effect on the performance of children at school. The study also established five major aspects of parent discussions which parents need to actively engage in for the realization of improved performance.

Keywords: Parental Discussion, Basic School, Structural Equation Model

1. Introduction

The concept of Parental involvement has become very popular in educational research and practice. Consistently researchers have touted parental involvement to be critical toward the development of children. Many studies, educators including Desforges and Abouchaar (2003), Fan and Williams (2010) have underlined the tremendous impact that parental involvement have on the academic performance of students in school. Epstein and Dauber (1992) have consistently highlighted that increased parental involvement and participation in the education of their children will improve the quality of education children receive.

In Ghana, like other developing counties, very little attention has been given to incorporating parent efforts in improving performance of pupils. Aside factors including work schedule, illiteracy and negligence (Gyamfi & Pobbi, 2016) which have been found to inhibit parents from getting involved in the education of their children, a major reason underlying the lack of attention on parental involvement in Ghanaian education is the low level of awareness on the impacts of parents' involvement among parents, schools and policy makers. For example, Chindanya (2001) pointed out that some school leaders lack knowledge on how parents can contribute to improving the performances of their children.

Hoy and Miskel (2015) posit that the rapid increase in parental involvement programmes in the Western world have been largely informed by finding of various research in the field. Thus it could be said that the lack of knowledge on PI could be partly attributed to the dearth of research on how parental involvement can help improve the performances of pupils within the developing world context (Narko & Vorgelegt 2007; Gyamfi & Pobbi, 2016). Hence studies such as Gyamfi and Pobbi (2016) have underscored the need for more research to examine how various aspects of parental involvement could help improve the performance of students in schools. Examining the impacts of parental roles toward child learning through research could be critical to addressing the gap in education.

Parent discussion is when parents and child communicate on several school activities concerning the child. One important dimension of parental involvement which as described by experts in the field Cho and Lin (2011) is parental home discussion with children. Although studies including Zellman and Waterman (1998), Epstein (2002), Walker *et al.* (2005), and Lee (2009) have mentioned that communication is an important aspect of parental involvement, not many studies have examined which discussion or communication activities parents can engage in with the child so as improve their performances at school (Cho & Campell, 2011). The paper thus seeks to construct a reliable measure for parental discussion and also examine its effect on the performances of children in school using data from Ghanaian basic schools.

2. Statement of the Problem

Over the last few years, there has been substantial budgetary and financial commitment by government of Ghana and donors towards the attainment of universal access to pre-tertiary education and ensuring the provision of quality education as evidenced by the increase in education expenditure from 5.3% in 2008 to 6.1% in 2011, after the rebasing of the GDP in 2010 (MoE, 2012). Although these reforms have contributed to the rise in Gross Enrollment Ratio at the primary level from 83.3% in 2004 to 96.5% in 2011 (MoE, 2012), they have not translated into the attainment of quality education for which they are targeted (Gyamfi & Pobbi 2016). For example MOE (2008) report the average score for Mathematics was 467 in 2003, and Ghana scored 276; the average score for Science was 470, Ghana scored 255, the national average score was 500 in 2007 and Ghana scored 309. These statistics evident a remarkable drop in the academic performance of students in public schools over the last decade (Etsey, Amedahe & Edjah, 2005; MOE, 2016) and corroborate the fact that there remains yet a gap between these subventions and performance of students (Gyamfi & Pobbi, 2016). The situation poses a threat to the national development agenda as it does not only affect the individual student but also to the entire nation.

Extant literature on school improvement in Ghana have focused largely on the general state of the economy, poor infrastructure, inadequate equipment and the disparate location of some of the schools, the unwillingness of most teacher trainees to accept postings to the most deprived areas (Dankwa, 1997; Baba, 2012), instruction efficiency (Adadzi, 2006) as the causes of the problem and largely failed to look beyond the school setting to explore the additional impacts of parents involvement can have on child learning and performances. Gyamfi and Pobbi (2016) thus recommended the need for parental involvement research in order to encourage parents to show active involvement in children's education towards the realization of quality basic education for all.

Review of related literature including researches such Epstein and Dauber (1992), Desforges and Abouchaar (2003), Caro (2011), Mahlo and Taole (2012) have all suggested that families and parents can play a critical role in students' performance through communication, most of these studies we based on qualitative designs (Jeynes, 2012) and lack rigorous empirical evidence to support their suggested impacts parental role on performances of children). Adding up on this point Caro (2011) noted that there exist inconsistent finding on the association between performance and parental communication among the few empirical studies, thus a need for further investigations. Cho and Campell (2011) also noted that the simplistic conceptualization of family processes which includes parental discussion may fail to reveal the relevant measures need for decision making to help improve child development. The current study will test employ an advanced analytical technique to determine reliable measures for parental discussion and also find the effect of parental discussion on the performances of children in Ghanaian school. The questions that guide this paper therefore include; how involved are parents in discussing school related issues with their children? What impact does parental discussion at home have on the child's performance in school?

3. Research Objective

The General Objective of the research is to contribute to the general body of knowledge and research work in the area of parental involvement by developing an empirical model which explains relationships between the parental discussion at home and academic performance in schools. More specifically, the paper seeks to;

•   Explore the practice of parental discussion at home among parents of basic school pupils.

•   Determine the relevant aspects of parental discussion at home necessary for child education.

•   Establish the effect of a parental discussion at home on child education on child performances at school.

4. Review of Relevant Literature

One of the most widely accepted theories of parental involvement is the Epstein's (2002) theory of Overlapping Spheres of Influence. The theory takes into consideration three major factors School, family and community which influence children learning and development. The theory contends that all these three factors influence, and is influenced by each other for either closeness or separateness. For example, schools can bring the three factors of influence together in a frequent and higher-quality interaction with parents (families) and communities, or they may choose to keep them quite separate (Epstein *et al.*, 2002). Epstein latter conceptualized that parent could get involved in child education through six typologies. One of such behaviours emphasized by the researcher was parent communication. Communicating as defined by Epstein *et al.* (2002) covered all academically relevant information regarding children's academic development from home to school.

Empirical literature on communication seem to describe it in two broad ways: discussion (communications) with teachers or school of child about child, and secondly discussions among parents and with child at home about child's education. Extant literature including DeGarmo, Forgatch, and Martinez (1999), Desforges and Abouchaar (2003) have mentioned that parental involvement within the school can act as a precursor to effective practices at home, and parents are more able to assist their children if they are kept informed about how they are doing in school and the best ways to encourage and motivate them to learn. Close collaboration between parents, teachers and schools is credited for its presumed positive impacts on children's performance. Parents' discussion with children at home on the other hand involves parents communicating their expectations and educational aspirations by, for example, discussing subject selection and choices, academic aspirations and post-school pathways (Pomerantz, Moorman & Litwack, 2007). Such communication represents a style of parenting which is supportive of a child's academic progress, places value on learning, and models behaviours appropriate for achievement (Walker *et al.,* 2005). Desforges and Abouchaar (2003) found that parent- child conversations in the home were more valuable, in terms of enhancing children's school achievement, than parents' involvement in school activities, suggesting that schools should encourage parents to talk to their children about school activities at home. Attesting to this Lee (2009) posits that parents-child communication is pivotal in transformation of the behaviours of children and according to DeGarmo, Forgatch, and Martinez (1999), Houtenville and Conway (2008), Caro (2011) influences the academic performances of students.

An empirical study by Zellman and Waterman (1998) explored the relationship between 193 mothers and their children who were in second to fifth grade at school. Children's achievement was measured by using school grades for Mathematics, reading and an IQ test. Adjustment to schooling was also assessed by using a behavioral rating list completed by their teachers. Parenting style was also assessed and rated using the analysis of a video recording which involved a parent-child discussion of an issue they both agreed was "problematic". The four dimensions which were rated included: clarity of communication, warmth, negative communication and emotional stability. Their findings quality of parents' interactions with their children is much more significant in predicting academic outcomes than how much they are involved in the school. A similar research by Caro (2011) on parent-child communication and parental education in fourteen secondary schools and five primary schools revealed a positive relation between parent-child communication and achievement.

This positive association is however contested in literature as researches by Fan and Chen (2001), Mattingly *et al.* (2002), and Patall, Cooper, and Robinson (2008) indicate no association and even others including Domina (2005), and Coleman and McNeese (2009) found negative associations. These results suggest inconsistences regarding the importance of parent-child communications and performance. This issue is addressed in this study, as the researcher investigates parent-child discussion at home by employing reliable measures from literature sources. Another gap in literature according to Cho and Campbel (2011), is the classification of communication in rather simplistic manner which conceals relevant information for practice. Hence the need to critically investigate measures of discussion which will be necessary for improving child performances in school.

5. 0 Research Methods and Design

5.1 Research Design

A mixed design was adopted for the study as researcher sought to triangulate findings during quantitative phase with qualitative findings. The population of study consist of 3244997 pupils at the time of the study (MoE, 2015). The minimum required sample size was statistically determined using Yamane (1967) and Nwana's (1992) recommendation to be 384. Sampling of respondents during the survey employed a multi-stage sampling techniques involving; a purposeful sampling of Five (5) Regions including: Ashanti, Greater Accra, Central,

Northern, and Eastern, followed by simple random selection of 10 pupils per each grade in starting from Grade 1 to 6 in each of the selected randomly three selected schools in each Region. Primary data was collected in 2014 using semi-structured interviews and a survey questionnaire from parents of 880 basic school pupils selected across five regions in Ghana. The reliability of interview guide was ensured by the researcher as printed copies were to a panel of experts to judge relevance of instrument. The reliability and validity of survey questionnaire was also ensured by the researcher. Items of the initial questionnaire were selected form the Korean Inventory of Parental Influence (KIPI; Cho & Lin, 2011) which is a modified version of the Campbell's (2004) Inventory of Parental Influence (IPI). Measurement items for parental discussion were: parents consulting each other on .my school-life together (school life); parents discuss issues about my school life until they reach an agreement (Issues); parents discuss issues about my school life until they reach an agreement(Issues), parents discuss together about offering the best tuition even after school (Best tuition); parents discuss before executing plans towards my education (execute plans); parents show interest in my education (show interest) and parents discuss child grades together (discuss grades).

Permission was sought from various head teachers via a letter from the researcher's university in August 2013 prior to data collection. After which a meeting was scheduled with parents by the help of head teachers. Interviews and data collection was done by the help of trained field personnel. Data gathered during survey were coded and entered into a SPSS 21. Data was screened for missing responses, normality reliability of construct and subsequently analyses using both descriptive and inferential methods were conducted. A confirmatory factor analysis approach followed by a Structural equation modelling (SEM) was conducted during the inferential stage of analysis.

5.2 Data Preparation

A number of procedures were used to prepare the data for subsequent analyses. Data were examined for missing values, for patterns of missing data and finally treated using the full information maximum likelihood estimation (FIML), also known as the individual raw-score likelihood method recommended by Enders and Bandalos (2001) to allow for subsequent analysis. Results of missing value analysis is presented in appendices.

5.3 Reliability Testing

The reliability of survey items is important in measurement and subsequently on the analysis of obtained primary data. A measure of the reliability of items for each latent constructs of the study permits us to determine whether the measured items in a scale were all measuring the same underlying construct. In the present study the reliability of the survey items were determined using the internal consistency Cronbach's coefficient alpha. A coefficient of 0.75 according to Hair *et al.* (2009) is a satisfactory criterion for a reliable and valid research instrument. The Cronbach's α values for the Parent Discussion construct in table 1 were found to be acceptable.

Table 1: Internal Consistence measures and the number of measurement items

	PD
Cronbach's α	0.856
Number of Items	6

Source: Survey Data

Result from analysis reveals an acceptable value for items of the Parental Discussion construct. The finding confirms significant amount of consistency among measured items hence suggesting that items reliably measured the construct.

6.0 Presentation and Analysis of Results

6.1 Descriptive Analysis and Interviews

Pupils rated various measurement items, which were selected from various literature, using a five point Likert scale ranging from 5 – strongly agree to 1 – strongly disagree. Descriptive of responses are presented using the mean ratings and standard deviation in table 2.

Table 2: Parent ratings on Parental Discussion Measures

	N	Mean	Skewness
parents consulting each other on .child school-life together	861	3.0733	-.049
parents discuss issues about my school life until they reach an agreement	867	2.9596	.030
parents discuss together about offering the best tuition even after school	864	2.9400	.050
parents discuss plans towards child education although they are busy	859	3.2222	-.186
parents discussing together with interest in child education	871	3.5643	-.133
parents discuss child grades together	868	3.3389	-.193

Source: Survey Data

The average perceptions of children on their parent's discussion generally indicate children were neutral on items. This result is evident in the high overall mean score of ratings of 3.29 for all statements that they responded to. In analyses the various items, it is observed most respondents agree to the item, *my parents show interest* with the highest recorded mean score of 3.56.

This rating was followed by a high rating for discuss grades with a mean score of 3.34. The finding suggests that most parents were neutral regarding discussed off child grades, although responses suggest mild negative skewness. Similarly parents were neutral regarding all other remaining measures of discussion. Responses during interviews with 30 parents also corroborate these results, as distribution of responses reveal that about 62% of parents made conscious effort with showing interest in child education and 55% discussing grades of their children. Some responses parents provided are detailed as follows:
A father in Kumasi elaborated,

> *We have what we call in the house assessment day. And this is done every month. Every month we sit and discuss all that you have been able to achieve. At the end of the term every child would put his or her report down so we discuss strengths and weaknesses.*

A father in Sunyani remarked,

> *We discuss together but not frequently. We discuss his academic performance based on his terminal report. We discuss his strong areas and his weaknesses.*

A father in Kumasi indicated vividly in his speech and said;

> *Yes, we discuss grades of child. Even when I am not there their mother would keep the report card until I come home. I am the one who understands the grading system and so I discuss with her how well the child has done. After we are done I also call the children to discuss. For areas where they have not done well we encourage and for areas where they have not done well we see how we can help. If it needs extra tuition I also ask the teachers to help especially in Math and Science...*

A mother in Accra also explained,

> *Oh yes we do issues relating to his education. He wasn't doing well in Math's and English and we talked to him and he agreed that he needed extra tuition in those subjects.*

A father in Tamale responded,

> *I go through his exams papers, terminal reports and school work books and discuss with him to make sure he is doing well. I do a lot of comparisons to make sure he is progressing.*

A mother from Accra responded:

> *I usually discuss their school life with them. We discuss bout their friends what happens at school and find out if they understand what is taught in school*

Another father in Accra remarked,

> *What we normally do is to sit down especially during vacations. We ask them if they want to look at their achievements and failures from the past term. If the child is doing well we give them encouragement, if the child is not doing well then we all see how we can help.*

6.2 Relevant Measures for Parent Home Discussion

The next research objective of the study involves identifying the relevant aspects of parental discussion needed for an improved child performance in school. A confirmatory factor analysis (CFA) approach is adapted to test further the relevance of measured items of the model by testing the formulated null hypothesis: *H_{o1}: all measurement items of the study are not relevant manifest variables of parental discussion in Ghana.*

Estimation of parameters in structural equation modelling is based on the sample correlation matrix

obtained from the survey data. The sample correlation matrix used in the analysis is also presented in appendices. Estimation of model fit indices was conducted using SPSS AMOS software. The model fit measures of the empirical model in this study is evaluated in using of the Goodness of fit index (GFI),Tucker Lewis index (TLI) and the Confirmatory Factor index (CFI) measures of fit; the statistical significance of the estimated coefficients, squared multiple correlation coefficient. Table 3 presents the results of the confirmatory factor analysis (CFA) for the measurement models of all constructs.

Table 3: Measures of Model fit for Empirical model during Confirmatory Factor Analysis

Model	NPAR	CMIN	DF	P	CMIN/DF	GFI	AGFI	TLI	CFI	RMSEA
Default model	12	49.164	9	.00	5.463	.981	.956	.969	.982	0.071
Saturated model	21	.000	0			1			1	
Independence model	6	2195.57	15	.00	146.372	.433	.206	0	0	0.407

Source: Author

Results of analysis reveal a CMIN (χ^2 = 49.164) with a corresponding p value = 0.000. The result which indicating a poor fitted model during the CFA. As noted in Hair *et al.* (2006) the Chi square value and p-value depends on the sample size and the larger the sample size the larger the Chi-Square becomes. It is thus recommended that other measures of fit are determined to assess the fitness of the model. A recommended measured the ratio of the chi square to the degrees of freedom, χ^2/df = 5.463 slightly exceeded the threshold value of 5 indicating the need for some modifications to the model. The other measures of fit including the GFI, TLI and the CFI which were evaluated in the context of suggested minimum threshold values of .9 (Arbuckle, 2010) exceeded the minimum threshold. The Goodness of fit measures, GFI = 0.981 and the adjusted goodness of Fit index AGFI = 0.956, The Tucker Lewis index and confirmatory factor index TLI= 0.969 and CFI = 0.982 presented in table 3 suggest that model fit is was acceptable.

Estimates of factor loadings during CFA were determined. The statistical significance of coefficients is evaluated in terms of the results of a hypothesis test with the null hypothesis that the true coefficient is zero using a significance level of 5%. The coefficients of measurement items which are also known as the factor loadings of items   estimated during CFA are presented in table 4.

Table 4: Estimated Regression weights of items during Confirmatory factor analysis

CONSTUCT AND MEASURES			Estimate	Standardized Estimate	S.E.	C.R.
School life	<---	PD	1.000	.771		
Issues	<---	PD	.975	.760	.043	22.436
Best tuition	<---	PD	.947	.709	.045	20.822
Execute plans	<---	PD	.623	.463	.047	13.182
Show interest	<---	PD	1.043	.788	.045	23.315
Discuss grades	<---	PD	.976	.761	.043	22.488

Table 4 presents the unstandardized and standardized regression weights estimated for measurement items of the PD construct. The Standardized regression weight gives a measure of how much increase in standard deviation will be experienced for a unit standard deviation rise in the endogenous variable. All measurement items of the Parent discussion construct had significant factor loadings. The largest standardized regression weight at the 5% level of significance was observed for *my parents show interest in my education* (*show interest*<--PD = 0.788, p value = 0.00). The result suggest that when **PD** goes up by 1 standard deviation, show interest goes up by 0.788 standard deviations. High standard regression weights were also observed for *parents discuss School life (school life<--PD = .771,* p value = 0.000), *Discuss grades (discuss grades   <--   PD = .761,* p value = 0.000), *Discuss Issues (Issues<--- PD = .760,* p value = 0.000), *and discuss Best tuition (Best tuition <-- PD =.709,* p value = 0.00).

The factor loading for the measurement item, execute plans *(execute plans<--- PD = 0 .463,* p value =

0.000), was less than the recommended minimum value of 0.5. As in factor analysis when loadings of variables lie below 0.5 items are deleted and analysis is repeated. Similarly when factor loading of items during CFA lie below 0.5 it is recommended that items are removed from the model and analysis repeated without items. If deletion improved on the model fit indices then the modified model is adapted. Results will be discussed later in the next section.

6.3 Effect of Parental Discussion on Child Performance

Few studies have suggested, that a parent discussion at home do have continuous impacts on the academic success of the child. The research question hence sought to find answers to address these gaps. A hypothesis was formulated for testing:

H_{o2}: *Parental Discussion does not have a positive effect on academic performance of pupils*
H_{a2}: *Parental Discussion has a positive effect on academic performance of pupils.*

The Path analysis stage of SEM involves testing for effects of the PD construct on the performance of students. This section thus aims to establish a full model showing paths from the exogenous latent construct confirmed during the CFA to an endogenous variable academic performance of pupil. These paths represented by directed arrows (figure 1) indicate causal relationships.
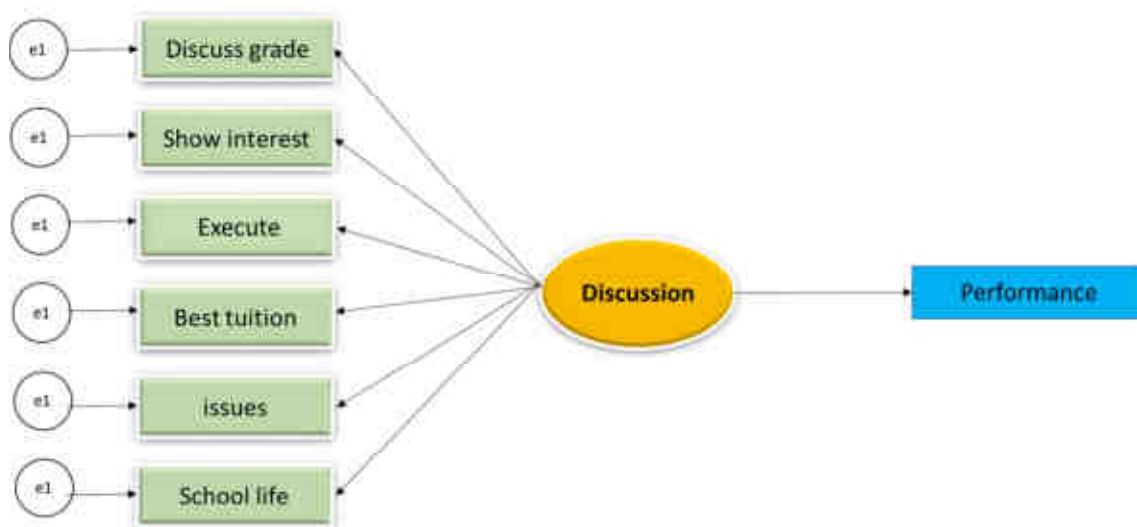

Figure 1: The conceptual model for Study

The full model is similarly tested using data from the survey. The fit of the full model is then assessed in terms of the Chi Square with the corresponding p-value, the Root Mean Square Error of Approximation (RMSEA). Hair *et al.* (2006). In addition to RMSEA, incremental fit indices; The Goodness of fit test index (GFI) and the Comparative fit index (CFI) are utilized for fit evaluation in this study. The relationships of between constructs and their measurement items with their probability values from SEM analysis using AMOS 23 are presented in table 5.

The Goodness of fit measure, GFI = 0.980 and the Adjusted Goodness of fit measure, AGFI =0.953 both exceeded the minimum threshold of .9 (without modifications). The other absolute fit measures, all exceeded the threshold value of 0.9; TLI = 0.931, CFI = 0.959 suggesting a good fit. The RMSEA= 0.073 and CMIN/Df = 5.747exceeded the minimum thresholds. It is also worth noting that all measurement items confirmed from CFA remained significant during SEM.

In the SEM model some of the exogenous variables are also allowed to correlate. The correlation paths were added as a model modification. This modification (a Lagrange Multiplier test in this case) tests the necessity of restrictions in the model. For example, if two variables are highly correlated in the variance/covariance matrix, and the researcher (unaware of this fact) suggests a model in which these variables are constrained to be independent, the Lagrange Multiplier test will estimate how much the model might be improved by releasing this restriction. Such a modification procedure is ad hoc, and does not reflect a strict confirmatory approach until it is cross-validated (Williams *et al.*, 1999). One modification was done by correlating items as shown in figure 2. After modifications to the model was reassessed to determine the fit of the

modified model. There was an improvement in all measures of fit. The ratio $X^2/df = 1.464$ was a significant improvement from 5.747 for the full model without modification and lies comfortably below the recommend threshold value of 5 hence this suggest the fit is acceptable. Details of estimates are presented in table 5.

Table 5: Measures of Model fit for Empirical model with modifications during Path Analysis

Model	NPAR	CMIN	DF	CMIN/DF	GFI	AGFI	TLI	CFI	RMSEA
No modification	12	51.721	9	5.747	0.980	0.953	0.970	0.982	0.073
One modification	13	11.716	8	1.464	0.996	0.988	0.997	0.998	0.023

Source: Author

The Goodness of fit measure for the model with modifications was estimated as, GFI = 0.996 and the Adjusted Goodness of fit measure, AGFI = 0.988.Which indicate substantial improvement in these model fit measures. Similarly the other absolute fit measures, improved after modifications. This was evident in estimate values of TLI = 0.997, CFI = 0.998 suggesting a good fit. Finally, the RMSEA = 0.023 also comfortably lies below the suggested maximum threshold of .08 which also suggest that model fit is good. All measurement items confirmed from CFA remained significant during SEM.

Table 6: Model fit Measures, Regression Weights and probability values form SEM analysis

			Estimate	Standardized Estimate	[b]S.E.	C.R.	[c]P
School life	<---	PD	1.000	.782			
Issues	<---	PD	.987	.780	.042	23.224	***
Best tuition	<---	PD	.962	.731	.044	21.661	***
Show interest	<---	PD	.973	.745	.044	21.901	***
Discuss grades	<---	PD	.895	.709	.043	20.643	***
PERFORMANCE	**<---**	**PD**	**.598**	**.639**	**.032**	**18.662**	***

Notes

b. Standard error of estimated unstandardised coefficient

c. Probability of a t value equal to or greater than actual t value in a two-tailed test for significance of coefficient under the null hypothesis that the true value is zero. The symbol *** indicates that the null hypothesis is rejected at the .001 level of significance.

(TLI = Tucker-Lewis index, CFI = Comparative fit index, CR = Construct reliability, VE = Variance extract

The SMCC for the endogenous variable shows the amount of variability in the variable explained by the all the four latent exogenous variables. The estimated value of $R^2 = 0.41$ implies that the PD as a singular construct can explain approximately 41 percent of the observed variance in child performances. This is not surprising as other factors are known to contribute toward explaining the variances on child performance at school. All unstandardized and standardized regression weights remained significant in the final path model. The final model showing the effects of the construct, PD on the performance of pupils is summarized presented in figure 2.
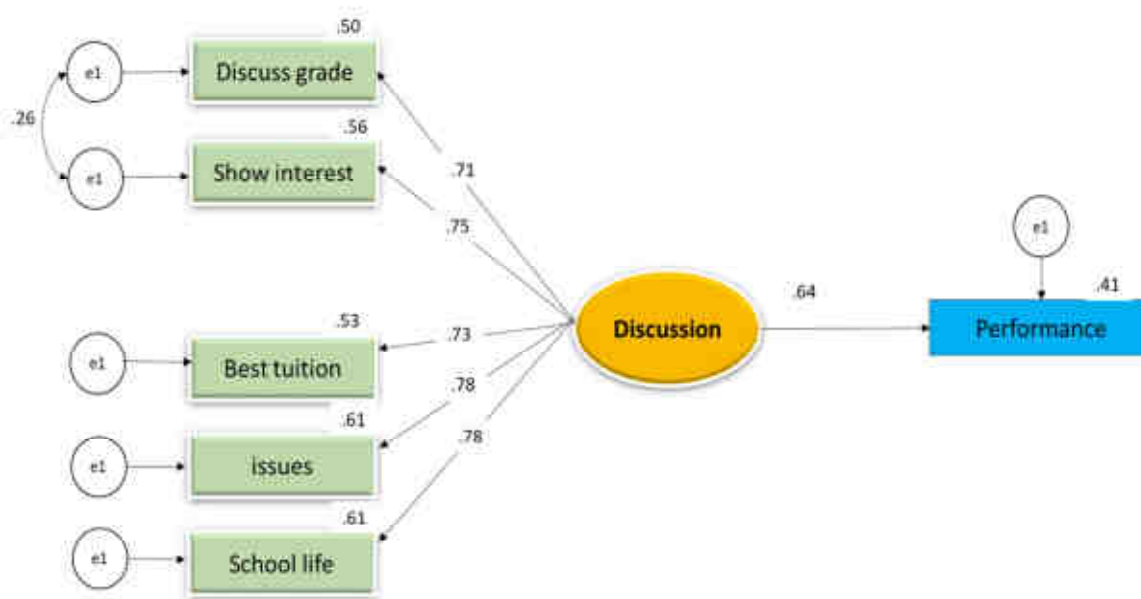
Figure 2: The Empirical model of Parental Discussion and Performance of Pupils.

The effect of exogenous variables PD in the path analysis is provided by the estimated standardized regression weight. Parental Discussion was found to have a significant positive effect on the performance (β = 0.64, p value = 0.000). The finding from the model thus confirms the significance of the claim H_{a2} that Parental discussion (PD) has a positive effect on academic performance of pupils. The positive sign of the estimated weight indicates that increase in Parental discussion will lead to better performance of pupils. The result hence provided empirical evidence of the impact that parents discussions with children regarding their education can have on the performances of their children at schools.

Although many studies including Fan and Chen (2001), Mattingly *et al.* (2002), and Patall, Cooper, and Robinson (2008) have suggested that parent communications with school does positively impact on child performance only a handful of studies have examine discussions at home and with the child regarding the child education. The results is in line with the finding of Houtenville and Conway (2008), Lee (2009) and Caro, (2011) who suggested that parental-child communication can transform child behaviours and therefor important for improved academic performances of students.

The finding of the study reveal valid measures of parental discussion at home which are relevant toward the improvement of children's performances in school. For examine the item, *parents discussing together with interest in child education* was found to be a relevant measure. According to Walker *et al.* (2005), children whose parents are interested in child education and discuss issues with child are also less likely to have social and emotional difficulties. It is therefore imperative that schools make the effort to educate parents on the relevance of their involvement in the various aspects of their children's education and also encourage parents to discuss issues relating to the education of their children with them at home.

7. Limitations of the study
It is worth nothing that the study results are limited as the study employed a cross-sectional survey instead of a longitudinal survey.

8. Recommendations
Based on the finding for the present study the following recommendations are suggested:
- Schools should organize workshops to sensitize parents on their role regarding the discussions on their children education.
- The government of Ghana should consider policies which will encourage parents to show active involvement in children's education towards the realization of quality basic education for all.
- Studies should examine factors which explain parental involvement within developing world context.

9. Conclusion

Parents' discussion regarding child education is a fundamental behaviour which every parent has to engage in if they are to improve on the performances of children at school. Parents need to be encouraged to involve themselves in the activities found in the study as they do influence the performance of children in school. The finding are also necessary toward decision making at the school level. Schools need to organize workshops or meetings where they can communicate and educate Parents on the relevance of Parental discussions.

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