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Parenting Style and Parental Support on Learners' Academic Achievement

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ABSTRACT This research sought to determine the role of parenting style and parental support in learners' academic achievement in Physics within the theoretical framework of Coleman's Social Capital Theory. A correlational research design was adopted and a sample of 335 senior secondary two learners was selected. Data were collected using a questionnaire on parental support and parenting style. A regression analysis was used to analyse the data. Results showed that parental support ($r^2 = 0.41$) and parenting style ($r^2 = 0.16$) play significant roles in learner performance in Physics. One of the implications of the findings is that poor parenting style and parental support will result in poor learner performance in Physics. It is recommended that adequate parental support should be provided to learners.

INTRODUCTION

Over the years, learner performance in the sciences, especially in Physics, has been below expectation (Akanbi et al. 2018; Ugwuanyi et al. 2019). Ugwuanyi et al. (2020a), and Ugwuanyi and Okeke (2020a) indicated that learner performance in Physics examinations has been below expectation at different levels of education for several years. Ugwuanyi et al. (2020b) found that student performance and retention in Physics have declined. Gana et al. (2020) noted that student performance in Physics concepts, such as heat capacity and latent heat, has been poor for more than a decade. The West African Examinations' Council (WAEC) Chief Examiners' Reports (May/June 2010-2019) confirmed this observation. The WAEC reports stated that the pass rates at credit level in Physics have discouraging during the past few years. Parents, teachers, school administrators, and government have been worried about the rate of poor learner performance in schools (Akpan and Umobong 2013). Earlier research in Nigeria traced poor learner performance to specific teacher factors, school-related problems (Adeyemi 2005), and home-front factors such as parenting style and parental support (Akpan and Umobong 2013). According to Bandura (as cited in Bonneville-Roussy et al. 2017), children's interactions with parents are sources of information that can determine their competence. Hence, this research was conducted within the theoretical framework of Coleman's (1988) Social Capital Theory.

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Theoretical Background

According to Coleman (1988), the creation of human capital in a society's younger generations is determined by the social capital in both the family and the community. Coleman (1988) emphasised the family's role in producing social capital. Thus, the family has a big responsibility to raise a healthy generation and to maintain a healthy society. Coleman (1988) believed that the family takes the first position in social capital provision, followed by the environment. Individuals benefitting from social capital is a function of the family and the community at large, which comprises the school, the neighbourhood, and other organisations (Coleman 1988). The researchers adapted this theory to explore how parenting style and parental support have an impact on learner performance in Physics. Selection of this theory was based on the premise

that family plays a major role in the development of the social capital of their children. This research proved that good parenting style and parental support significantly improved the academic achievement of learners in Physics. Social Capital Theory has been successfully used by Bofota (2013), Ravik et al. (2013), Von Otter and Sten-Åke (2015) and Bala et al. (2017) to conduct similar studies.

Review of Empirical Studies

Studies have been conducted on the relationship between parenting style and parental support, and learner performance. Ravik et al. (2013) found that parental involvement improved learner performance in school activities. Bofota (2013) found that the social capital which was available in the family had a significantly large influence and explained a substantial proportion of variation in students' academic achievement in Tanzania. Ravik et al. (2013) established that parents need to be active in the learning process and in planning their children's social activities in order to create social capital. The utility of social capital is enhanced when combined with an excellent parent-child relationship (Von Otter and Sten-Åke 2015). Bala et al. (2017) used Social Capital Theory (Coleman 1988) to explain how parental involvement affects the schooling of left-behind children in Niger State, Nigeria.

Based on the above theoretical background, the researchers explored the predictive powers of parenting style and parental support to learner performance in Physics. Several parenting factors, for example parenting style, influence the direction of bias in the academic competence of children (Bonneville-Roussy et al. 2017). Argyriou et al. (2016) found that parenting styles are statistically significant for authoritativeness and marginally significant for authoritarianism. According to Mihret et al. (2019), there is a significant relationship between the authoritative parenting style and students' motivation to achieve academically. There is a negative relationship between a neglectful parenting style and students' academic achievement (Mihret et al. 2019).

Waterman and Lefkowitz (2016) found that the academic engagement of emerging adults can be determined by parenting characteristics. Authoritarian and overprotective parenting styles have a significant impact on learners' academic ability (Kostereliogl u 2018). The indulgent parenting style has been related to better school adjustment during adolescence (Fuentes et al. 2019). Samina et al. (2014) found that a parental authoritative style positively predicted learners' academic achievement. Howard et al. (2019) found that parental behaviour and involvement had significant predictive relationships with academic success.

According to the Centre for Child Well-Being (cited in Sapungan and Sapungan 2014), parental involvement in their child's learning process offers many opportunities for success, such as the improvement of their child's academic achievement. Akomolafe and Adesua (2016) established a significant positive relationship between parental support and students' academic performance. Karbach et al. (2013) found that parental involvement has a significant relationship to children's performance at school. The academic achievement of adolescents is a function of parental involvement that predicts their academic success (Ming-Te and Sheikh-Khali 2014).

According to Hill and Tyson (2009), parental support significantly leads to the development of positive academic skills among elementary school learners. Fantuzzo et al. (2004) found that parental support in terms of parent-child reading and learning activities predicts substantial growth in learner performance at school. However, Nurit (2013) found that home-based parental involvement relates positively to learners' academic achievement. Kadar-Satat et al. (2017) indicated that active parental involvement in children's school activities was paramount to achieve the best educational outcomes. Active parental involvement in the education of children is regarded as a beneficial factor in young children's learning and development (Ancell et al. 2018). Noggle (2019) determined that when fathers are actively involved in their children's education, they perform better in school and are less likely to develop behavioural difficulties. Morgan et al. (2019) found that fathers' meaningful engagement increases in-school adolescents' physical activity behaviour. According to Ravik et al. (2013), most parents participate in

student's learning only by providing material aspects. They think that their children's education is the sole responsibility of the school. However, parental monitoring of middle school learners was found to be negatively associated with learner performance in school coursework (Hill and Tyson 2009). Contrary to the above findings, Sota and Agi (2020) found that there is no significant relationship between parental influence on subject selection and on students' academic performance.

Based on the foregoing, it has been established that parental involvement and parenting style are determinants of learner performance in schools. However, poor performance of learners in Physics persists in Nigeria, especially in Enugu State. This points to the fact that the learners' parents may not be carrying out their responsibilities as they are supposed to do. Moreover, literature on the relationships between parenting style and parental support, and learner performance in Physics is scarce in this field of research. These gaps in the literature have initiated this research.

Objectives of the Study

The objectives of the study were to determine the relationship between 1) parenting style and learner performance in Physics; and 2) parental support and learner performance in Physics.

Research Questions

In line with the objectives of the study, the research questions follow.

1. What is the relationship between parenting style and learner performance in Physics?
2. What is the relationship between parental support and learner performance in Physics?

Hypotheses

Ho_1: There is no significant relationship between parenting style and learner performance in Physics.

Ho_2: There is no significant relationship between parental support and learner performance in Physics.

Significance of the Study

The findings of this study have both theoretical and practical significance. Theoretically, the findings have strengthened the tenets of Coleman's (1988) Social Capital Theory. Coleman (1988) believed that family and community play significant roles in the creation of human capital in society's younger generations. The findings of this study have shown that parental support and good parenting style have contributed positively to learner performance in Physics. Practically, learners of Physics, teachers, parents, and school administrators will be better guided on the impact that parenting style and parental support have on learner performance in Physics.

MATERIAL AND METHODS

Research Design and Approach

This research adopted a correlational-survey research design. This type of study seeks to establish what relationship exists between two or more variables. Also, this type of study indicates the direction, magnitude, and strength of the relationship between the variables. This design has been used by Gana et al. (2020), Ugwuanyi and Okeke (2020b), Ugwuanyi et al. (2020c) in similar studies. This research adopted a pure quantitative research methodology. The quantitative method emphasises objective measurements and the statistical analysis of data collected through surveys (Creswell 2014).

Participants

A sample of 335 Physics learners from a population of 4,598 Senior Secondary 2 (SS 2) Physics learners in all the 31 schools in the three local government areas (LGAs) in Enugu education zone of Enugu State formed the study participants. This sample was composed in three different stages. The first stage of the sampling involved simple random selection of 2 LGAs out of the three LGAs. At the second stage, 12 secondary schools were sampled using a proportionate stratified random sampling technique. Finally, 335 SS 2 Physics learners were sampled from the twelve sampled secondary schools us-

ing a proportionate stratified random sampling technique.

Instrumentation and Procedure

The researchers used the Parental Support and Parenting Style Questionnaire (PSPSQ) which they had developed themselves to collect data. The PSPSQ instrument had two clusters, namely A and B, with a total of 31 items modelled on a 4-point Likert scale of 'Strongly Agree' (SA), 'Agree' (A), 'Disagree' (D) and 'Strongly Disagree' (SD). Records of the learners' academic performance in Physics for three terms in the 2016/2017 academic year were collected from the head of Physics in each of the sampled schools. The average score of the three terms' scores was used to measure learner performance in Physics.

Instrument Validation and Reliability

The PSPSQ instrument was face-validated by three test-development experts. The internal consistency and reliability of the instrument was determined through trial-testing. The data collected were subjected to Cronbach's alpha reliability estimate and reliability indices and 0.86 and 0.78, respectively, were obtained for clusters A and B.

Ethical Measures

Ethical clearance from the Research Ethical Committee of the Faculty of Education at the University of Nigeria was obtained to conduct this research. Learners' participation in the research was voluntary and the research objectives were made known to the respondents by the researchers. The researchers prepared informed consent letters and presented these to the respondents for their signed approval. The researchers assured respondents that the information provided by them would be used solely for research purposes and would be treated confidentially. Contact details of the researchers were left with the respondents should they have had the need to contact them.

Data Analysis

Data were analysed using simple linear regression analysis. The correlation coefficient was used to answer all the research questions while the hypotheses were tested at a five percent probability level using analysis of variance (ANOVA).

RESULTS

This study adopted a quantitative research approach. The results presented here are therefore based on the quantitative data gathered during the fieldwork. Each research question is stated again, followed by its respective hypothesis, with a discussion following on each.

Research Question One: What is the relationship between parenting style and learner performance in Physics?

Table 1: Regression analysis of the predictive power of parenting style on learner performance in Physics

Variable	*n*	*r*	r^2
Parenting style andlearner performance	335	0.40	0.16

r^2 = coefficient of determination

Table 1 shows that the correlation between parenting style and learners' academic achievement in Physics is 0.40. This means that parenting style positively relate to learners' academic achievement in Physics. The coefficient of determination of 0.16 shows that 16 percent of the change in learner performance in Physics is due to parenting style. This is an indication that 84 percent of the positive change in learner performance in Physics is attributed to factors other than parenting style.

Ho_1: There is no significant relationship between parenting style and learners' academic achievement in Physics.

Table 2 shows that there is a significant positive relationship between parenting style and learner performance in Physics (F [1, 333] = 62.85, $p < 0.000$). Thus, null hypothesis 1 is rejected at $p < 0.05$. Therefore, the researchers infer that learner performance in Physics is highly determined by the kind of parenting style adopted by the parents. In other words, good parenting style correlates positively with learner performance in Physics, whereas bad parenting style will correlate negatively with learner performance in Physics.

Table 2: Analysis of variance of the predictive power of parenting styles on learner performance in Physics

Model	*Sum of squares*	*df*	*Mean square*	*F*	*Sig.*	*Dec*
Regression	3917.552	1	3917.552	62.854	0.00	S
Residual	20755.289	333	62.328			
Total	24672.841	334				

Research Question Two: What is the relationship between parental support and learner performance in Physics?

Table 3 shows that the correlation between parental support and learners' academic achievement in Physics is 0.64. This indicates that parental support has a positive relationship with learners' academic achievement in Physics. The coefficient of determination of 0.41 shows that 41 percent of the positive change in learner performance in Physics is due to parental support. This is an indication that 59 percent of the variation in learner performance in Physics is due to other factors and not to parental support.

Table 3: Regression analysis of the predictive power of parental support on learner performance in Physics

Variable	*n*	*r*	r^2
Parental support andLearner performance	335	0.64	0.41

r^2 = coefficient of determination.

Ho*$_2$*: There is no significant relationship between parental support and learners' academic achievement in Physics.

Table 4 shows that there is a significant predictive power of parental support to learner performance in Physics (F [1, 333] = 229.20, $p < .05$). Therefore, null hypothesis 2 is rejected at $p < 0.05$. The inference drawn by the researchers is that parental support to children is a major determinant of learner performance in Physics. In other words, when parents provide enough educational support to their children, the academic achievement of the children tends to be enhanced.

DISCUSSION

The findings of this research show that parenting style and parental support are significantly related to learner performance in Physics. A significant percentage variation in learner performance is attributed to parenting style and to parental support. This offers evidence that a good parenting style and adequate parental support could have a major contribution to learner performance in Physics. Literature has shown that the adoption of effective parenting styles by parents leads to improved academic performance of learners. Đurišiæ and Bunijevac (2017) found that increased parental involvement leads to an increase in student success and to an improved school climate. Authoritative fathers and mothers have youths who exhibit high levels of prosocial behaviours, and who report higher academic self-efficacy and better academic achievement (Carlo et al. 2018). According to Epstein (cited in Kim 2020), parental support significantly determines student performance. Kim (2020) also acknowledged that there is a positive relationship between parental support and achievement of learners in school.

In agreement with the above findings are the findings of Mihret et al. (2019), Waterman and Lefkowitz (2016), Kostereliogl u (2018), Howard et al. (2019), and Child Well-Being (cited in Sapungan and Sapungan 2014). Mihret et al. (2019) found that there is a significant relationship between the authoritative parenting style and stu-

Table 4: Analysis of variance of the predictive power of parental support on learner performance in Physics

Model	*Sum of squares*	*df*	*Mean square*	*F*	*Sig.*	*Dec*
Regression	10058.733	1	10058.733	229.200	0.00	S
Residual	14614.108	333	43.886			
Total	24672.841	334				

dents' motivation to achieve academically. However, a neglectful parenting style negative relates to learners' academic achievement (Mihret et al. 2019). Waterman and Lefkowitz (2016) determined that the academic engagement of emerging adults can be determined by parenting characteristics. Authoritarian and overprotective parenting styles have significant impacts on the performance ability of learners (Kosterelioglu 2018). The indulgent style is related to better school adjustment during adolescence, as stated by Fuentes et al. (2019). Samina et al. (2014) found that learners' academic achievement is predicted by parental authoritative style positively. Howard et al. (2019) found that parental behaviour and involvement had significant predictive relationships with academic success.

Akomolafe and Adesua (2016) found a significant positive relationship between parental support and students' academic performance. According to Karbach et al. (2013), parental involvement has a significant relationship with children's achievements at school. The academic achievement of adolescents is a function of parental involvement that predicts their academic success (Ming-Te and Sheikh-Khali 2014). Parental familiarity with children's school activities relates positively to their performance in Mathematics, as established by Cheng (2017). Fantuzzo et al. (2004) found that parental support in terms of parent-child reading and learning activities predicted substantial growth in learner performance in school. However, Nurit (2013) found positive links between home-based parental involvement and boys' academic achievement Howard et al. (2019) indicated that positive parental acceptance and involvement have a significant predictive relationship with academic success. Kadar-Satat et al. (2017) indicated that active parental involvement in children's school activities is paramount to achieving the best education outcomes for children. Active parental involvement in the education of children is regarded as a beneficial factor in young children's learning and development (Ancell et al. 2018). Noggle (2019) found that when fathers are actively involved in their children's education, the children perform better in school and are less likely to develop behavioural difficulties. Morgan et al. (2019) established that fathers' meaningful engagement increases adolescents' in-school physical activity behaviour. However, parental monitoring for middle school learners was found to be negatively associated with performance in school coursework (Hill and Tyson 2009). Contrary to the above findings, Sota and Agi (2020) found that there is no significant relationship between parental influence on subject selection and students' academic performance. This disparity in the findings calls for yet further studies on the subject matter.

CONCLUSION

The researchers conclude that parental support and parenting style play significant roles in learner performance in Physics. Thus, learner performance in Physics is highly determined by the kind of parenting style adopted by the parents, and by the educational support rendered to them by their parents. In other words, good parenting style and parental support correlate positively with learner performance in Physics, whereas bad parenting style and a lack of parental support correlate negatively with learner performance in Physics. These results indicate that parenting style and parental support could determine the academic success of learners in schools to a large extent. Thus, parents' adoption of a negative parenting style and a lack of adequate parental support lead to decreased academic excellence by their school going children.

RECOMMENDATIONS

Based on the findings of this research that parenting style and parental support significantly determine the performance of learners in Physics, the researchers proffer one recommendation. Parents should adopt a proper parenting style in raising their children and they should provide adequate educational support to their children.

LIMITATIONS

This research was not able to consider the moderating effects of potential moderators, such as the tribe, location, religion, etc. of respondents, on the relationship between parenting style and parental support, and learner performance in Physics. This may limit the generalisability of the findings to learners belonging to

different tribes and religions. Based on this limitation, the researchers suggest that future research should consider the moderating influences of the tribe, school location, and religion of learners on the relationships between parenting style and parental support, and learner performance in Physics.

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