Family Emotional Climate, Gender, Age and Level as Correlates of Academic Performance among Undergraduates

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Abstract: This study examined family emotional climate, gender, age, level as correlates of academic performance among undergraduates. To guide the study, two hypotheses were formulated and tested at 0.05 level of significance. The study is a survey. Purposive random sampling technique was used to sample 136 students from the Department of Guidance and Counselling based on age, gender, and level. A research instrument titled “Family emotional climate and academic performance” was used to solicit information from respondents. The instrument has face, content and construct validity. The internal consistency of the items in the instrument were assessed and its reliability index is 0.91. Correlation matrix and multi regression statistics were used to analyze the data. Findings revealed that there is intercorrelation relationship among the variables while results on the second research question and hypothesis showed that there is significant composite relationship between the independent variables and the dependent variable. Counsellors should develop programmes where parents should be educated on ways to create conducive psychological environment then could enhance academic performance among students.

Keyword: Family emotional climate, Gender, Age, Level, Undergraduates, Academic performance.

INTRODUCTION

Education is the thread by which a nation’s fabric is woven. It is a process of transforming individuals to make them better in nature and quality. It brings about changes in human quality in terms of physical, psychological, social, emotional and spiritual experiences. In other words, education as a process of change, that helps to inform, train and equip individuals with necessary skills, knowledge, competences and be able to cope with the challenges the environment provides on daily basis [1,2,3]. Education therefore is the sum total of experiences individual acquired from birth to death, consciously or unconsciously from his immediate or outer environment. This acquisition could be in formal or non-formal setting.

The highest formal learning environment is the University setting. It is the highest citadel of learning on earth where knowledge, skills and competencies are imparted into learners. In the school setting the students are assessed with tasks like assignments and examinations in oral or written form, presentations and participation in class activities and discussions among other academic activities. The scores and grades earned through these assessment forms the academic performance of the learner. This assessment evaluates the extent to which learning has taken place in three domains: knowledge, skills and competencies and be able to cope with the challenges the environment provides on daily basis [1,2,3]. Education therefore is the sum total of experiences individual acquired from birth to death, consciously or unconsciously from his immediate or outer environment. This acquisition could be in formal or non-formal setting. The highest formal learning environment is the University setting. It is the highest citadel of learning on earth where knowledge, skills and competencies are imparted into learners. In the school setting the students are assessed with tasks like assignments and examinations in oral or written form, presentations and participation in class activities and discussions among other academic activities. The scores and grades earned through these assessment forms the academic performance of the learner. This assessment evaluates the extent to which learning has taken place in three domains: knowledge, skills and competencies and be able to cope with the challenges the environment provides on daily basis [1,2,3]. Education therefore is the sum total of experiences individual acquired from birth to death, consciously or unconsciously from his immediate or outer environment. This acquisition could be in formal or non-formal setting.

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Academic level has been considered one of the factors that determine students’ cognitive development and maturity, a quality that is associated with necessary class index for academic performance among undergraduates [4]. Knowledge acquires and its understanding brings changes within the learner and their performance. As the learner progresses in his academic journey she/he observes that the academic tasks he tried to cope with at a particular level becomes simpler and easier to understand when they pass to higher levels.

Age is one of the variables that could affect academic performance among undergraduates. Cognitive development and maturity influence participation in intellectual activities. All things being equal, when the individual is matured chronologically, the cognitive functioning understands complex and abstract manipulation. This development affects every area of human functioning including academic activity which, in turn, affects academic performance [9]. The assessment of the relationship between age and academic performance has become paramount. Also, the psychological make-up of the learners environment is mainly the (family) background. A family is a group of people who are related through a common ancestry and affinity of a shared residence. It provides intimacy, love, tendencies, security and economic cooperation and meets the psychological and physiological needs of its members. It is characterized by positive and negative emotions. Emotion...
is an overt or covert expression of an individual’s inner feelings. It is usually aroused by the individual’s behaviour or by those around them. It is a complex response pattern characterized by arousal and physiological changes and feelings. These feelings are affections expressed in form of love which is symbolized by security, protection, combat and approval. Sometimes, affections are either pleasurable or painful state of mind that could be aroused as a result of sensation, memories or judgment of events in our environment. Every family has its own emotional climate that forms the basis of the child’s behaviour. Every person, especially at the undergraduate level, needs a warm, caring and organized family to function properly in. Emotional climate is an ecological habitat of a person’s innate feelings which gives expression of warmth, care, love and which determines our social make-up and, more importantly, the prism through which we view the world and our endeavours (including academic performance) as undergraduates[4]. There is symbolic relationship between the emotional climate in which an individual is nurtured and his academic performance. The problem of shocking failure rates in our schools is not only hinged on poor school environment but also on emotionally disturbed family environment of students.

Some scholars have made bold attempts to de-mystify the puzzle by showing that there is a “marriage of convenience” between a child’s academic performance and his family emotional climate. [10] posited that parental monitoring is related to lower risk of dropout in schools. The rising tide of delinquency is linked to children nurtured in socially deprived family environment [11]. Also, psycho-social crisis is linked with poor parenting skills. [12] gave a descriptive intellectual drama of problematically troubled family climate: Children exposed to harsh parenting such as slapping, spanking and yelling are more likely to bully others, have behavioural problems and poor grades. Emotion is a psychosocial tool which has deep influence on individuals. Lack of warmth and care, and a disorganized emotional climate could affect an individual in all endeavours including academic performance [9].

Some pundits are of the opinion that higher grades indicate better performance. Performance is most reliable under a moderate environment and does not change suddenly [13, 14, 6],[9] opined that pessimistic students whose families are unfriendly are prone to poor grades than their optimistic counterparts. It should be noted that there is relationship between emotional and academic performance. Parental involvement leads to increased academic performance [15, 16]. Studies show that children raised by single parents or those who experience parental union dissolution do less well than children who live with both biological parents [17]. There is academic performance gap between students from single and two parents’ families. Marital stability is a crucial component of family emotional climate. [18] noted that covariants of marital dissolution like financial instability, negative spousal behaviour and parental in fighting influence students academic performance. Growing up with single parents is negatively associated with children’s educational outcomes [19]. This shows how family emotional climate affects the academic performance of students (undergraduates).

Furthermore, [20] revealed that home environment showed positive impact on social intelligence. Also [21] opined that good quality of home environment had significant positive correlation with “high” level of scholastic achievement in boys than among girls. It was found that when the home environment is filled with warmth, care, peace, appreciation, it builds children’s self confidence and positive energies, which helps them to profitably to participate in academic activities but distorted family functioning predicted poor academic performance among the respondents[21]. It is, therefore, necessary to assess the extent to which family emotional climate, level, and age influence academic performance of undergraduates.

STATEMENT OF PROBLEM

There is a downward trend in academic performance of learners at the three tiers of educational system particularly at the university level. This has become an issue of concern to stakeholders in education. Furthermore concerned stakeholders have mentioned some instrinsic factors such as self concept, school factors and teachers factor. Researchers such as [13, 22] identified study habits, [7]identified emotional intelligence, self-concept and [23] learning environment as factors that affect academic performance. It is against this background that this study is set out to find out the relationship among gender, age, level, family emotional climate and academic performance of undergraduates.

Research Questions:
The following research questions were raised to guide the study:

a. Is there significant relationship among level, gender, age, family emotional climate and academic performance among undergraduates?
b. What are the significant composite effects of level, gender, age, family emotional climate on academic performance among undergraduates?.

Hypotheses:

a. There is no significant relationship among level, gender, age, family emotional climate and academic performance of undergraduates.
b. There is no significant relationship between composite effects of level, gender, age, family emotional climate and academic performance among undergraduates.

Purpose of Study:
The aim of the study is to examine the extent to which family emotional climate, gender, level and age correlate with academic performance of undergraduates.

Significance of the Study:
The findings of this study will be of great help to students, counselors, parents and educators. To students, it will enable
them to understand the usefulness of their homes to their academic lives and all round development.

The findings will help counselors to know the usefulness and importance of family emotional climate to academic performance of undergraduates. They will also make the family to know how being more hospitable can boost the academic performance of people.

**METHOD**

The study employed expo-facto design. It is co-relational in nature. It examines gender, age, level and family emotional climate as correlates of academic performance of undergraduates in Delta State University.

Purposive random sampling technique was used to select a sample size of 136 students from Guidance and Counselling Department; 68 from 100 level and 68 from 400 level. The instruments used for the study were two: (1) the cumulative point average for 100 and 400 levels students and (2) a questionnaire titled “Family emotional climate and academic performance”. The questionnaire is sub-divided into two sections, A and B. Section A elicited information on bio-data of the respondents (level, gender, age) while section B had items on the characteristics of family emotional climate. The items on family emotional climate include: love expressed by family members strengthens my character and desire to succeed, warmth from my family emboldens my academic work, family supports instills steadfastness in studying my books. The joy from family is an incredible source of strength in my daily academic work, family member’s steadfast love spurs me to actively involved in my academics pursuit, family values have taught me how to master desired passions as it concerns my academics, kindness from family is a motivator to desire success in life, my school materials are adequately provided, understand my emotional needs and meets them, makes me feel cherished, loved, appreciated for my uniqueness my family patience and commitment in meeting academic needs strengthens my desire to work harder.

The questionnaire was validated by experts in evaluation. The instrument equally had face validity. To ascertain the content and construct validity of the instrument, a factor analysis was conducted. The 20 items on family emotional climate were subjected to principal component analysis (PCA) using SPSS, version 21. Prior to the analysis, the suitability of the data for factor analysis was assessed. Inspection of the correlation matrix showed that most of the co-efficient are 0.3 and above. Also the Kaiser-Mayer-Okin (KMO) measure of sampling adequacy value was 0.82 which exceeded the 0.6 value recommended. The Bartlett’s Test of Sphericity also reached statistical significance, p=0.00, supporting the factorability of the correlation matrix. The PCA revealed the presence of four components with Eigen values exceeding 1, explaining 38.87, 21.26, 13.08 and 7.53 of the variance respectively. An inspection of the screen plot reveals a clear break after the fourth component but the Parallel Analysis (PA) showed that the first four components have greater values exceeding that of the corresponding component of the (PA). The four components solution explained a total of 81.74% after rotation using varimax rotation technique.

The variance with component 1 contributed 35.22%, component 2 contributed 17.74%, component 3 contributed 14.06% and component four contributed 12.71. Construct validity ranged from 0.476 to 0.94. Reliability of the instrument was 0.81 and exposed to internal consistency assessment using Cronbach alpha; the r-value obtained was 0.81. The value suggested that the instrument had a good reliability index and, therefore, good for data collection. Participants’ age ranged from 19 to 27 with a mean age of 22.7 years. Regression statistical tools were used to analyze the data. However, level, age, gender were treated as biodata. Three variables did not go through the process of validation. Hence level, which consisted of 100 and 400 were scored 100 level = 0; 400 level = 1. The gender which is indicative of sex (i.e. male=0, female 1; and age subdivided dimension 16-25=0 25-30 =1, it should be noted that all participant responses, male or female, 100 level or 400 level, 16-23 and 24-31 attracted nominal scores which have no marks [24,25]

**RESULTS**

**Research question 1:** Is there significant relationship among family emotional climate, gender, level, age and academic performance of undergraduates.

**H**0: There is no significant relationship among family emotional climate, gender, level, age and academic performance of undergraduates.

Table 1: Correlation matrix of genders, level, age, family emotional, climate, and academic performance.

<table>
<thead>
<tr>
<th>G e n d e r</th>
<th>L e v e l</th>
<th>A g e</th>
<th>F a m i l y e m o t i o n a l c l i m a t e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Level</td>
<td>Age</td>
<td>Family emotional climate</td>
</tr>
</tbody>
</table>
| Level      | Correlation matrix analyzed indicating inter-correlation between the dependent variable and independent variables. The degree of relationship between students’ academic performance and the other variables is significant. The correlation between family emotional climate is significant with academic performance while the correlation between gender (-0.07>0.469)’ level (-0.047~0.0292) and academic

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Level</th>
<th>Age</th>
<th>Family emotional climate</th>
</tr>
</thead>
<tbody>
<tr>
<td>L e v e l</td>
<td>0.862 *</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A g e</td>
<td>0.672 *</td>
<td>0.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F a m i l y e m o t i o n a l c l i m a t e</td>
<td>0.205</td>
<td>0.253</td>
<td>0.103</td>
<td>0.306 *</td>
</tr>
<tr>
<td>A c a d e m i c p e r f o r m a n c e</td>
<td>-0.007</td>
<td>-0.047</td>
<td>0.103</td>
<td>0.306 *</td>
</tr>
</tbody>
</table>

*significant at 0.05 level
performance is negative but insignificant. The correlation between age and academic performance is not significant (0.103>0.496). Age has the least correlation coefficient. The correlation coefficient is an indication of the strength of the dependence of students’ academic performance on the independent variables which caused the amount of variation in it. The strongest and most potent relationship with the criteria variable is family emotional climate and academic performance.

Research question 2: What are the composite effects of level, gender, age, family emotional climate on academic performance of undergraduates

H02: There is no significant relationship between composite effects of level, gender, age, family emotional climate and academic performance among undergraduates.

Table 2: Summary of composite and relative contribution of the Independent Variables in predicting of the Dependent variable.

<table>
<thead>
<tr>
<th>Variables</th>
<th>R</th>
<th>R²</th>
<th>Adj R²</th>
<th>F-Ratio</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined effects</td>
<td>0.377</td>
<td>0.143</td>
<td>0.116</td>
<td>5.44</td>
<td>-0.230</td>
<td>0.819</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.055</td>
<td>0.335</td>
<td>0.738</td>
<td>0.246</td>
<td>4.067</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.342</td>
<td>-2.031</td>
<td>0.044</td>
<td>0.231</td>
<td>4.321</td>
</tr>
<tr>
<td>Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.246</td>
<td>2.145</td>
<td>0.034</td>
<td>0.499</td>
<td>2.002</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.332</td>
<td>3.990</td>
<td>0.000</td>
<td>0.946</td>
<td>1.057</td>
</tr>
<tr>
<td>Family emotional climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a) Predictors (constant): gender, level, age and family emotional climate (F.E.C)
(b) Dependent variable: students’ academic performance

From the results presented in table 2, the independent variables collectively yielded a co-efficient of multiple regression of R of .377 and R² of .143 and an adjusted R² of .116. This shows that 12% of the total variance of academic performance of the respondents is accounted for by the combination of four predictive variables studied. The analysis of variance produced an F ratio value significant at 0.05 level (F = 5.44, P<0.05). The findings confirm that the four variables combined are significant predictors of the criterion measure.

Using standardized regression co-efficient to determine the relative contributions of the independent variables to the variance in the dependent variable in table 2 above, the result indicated that family emotional climate (β=0.047, t = 3.990, t = 0.946, p<0.05) is the most potent contributor to the prediction followed by age (β = 0.203, t = 2.145, tolerance = .499, p<0.05), then level (β = -0.497, t = -2.031, Tolerance = .231, P<0.05) and finally gender (β = 0.081, t = 0.335, tolerance = .246, p>0.05). In summary, while family emotional climate is most potent of academic performance, gender is not a predictor.

DISCUSSION OF FINDINGS

The main objective of the study is to determine the extent of singular and joint relationship between predictor variables of family emotional climate, gender, level, age and academic performance of undergraduates. This was made possible by determining the relationship between them and attempting to predict academic performance based on cumulative grade point average. The findings of the study showed that the hypotheses were rejected and the alternative upheld. It is obvious from the table of correlation matrix that there exists inter-correlation between the variables. This is shown in form of positive and negative relationship. The positive relationship is a reflection of the fact that the influences of age and family emotional climate on academic performance of undergraduates are intended to improve students’ performance. The inverse relationship between level and undergraduates’ academic performance shows that increase in one could result to decrease in the other.

Relationship between family emotional climate and academic performance:

The relationship found between family emotional climate as a singular predictor variable to academic performance was expected because the family is the ocean where emotions are expressed as waves among members. The waves or tides are cares shown, burdens shared, patience taught and model friendship cultivated. These emotional connections foster academic success which is in agreement with [26] who opined that parental involvement particularly in expression of care, warmth and friendship influences an individual comportment at pursuing academic success. Every individual, irrespective of age, appreciates being catered for.

Relationship between Gender and Academic Performance of Undergraduates:

There is a negative but in-significant relationship between gender and students academic performance. This shows that there is no significant relationship between gender and academic performance. It means that gender does not play any role in academic performance. The plausible reason for this could be that undergraduates, irrespective of gender, are exposed to the same academic environment with all its stress and, so, experience the same pains and passions of the school system. Performance is enhanced by the determination, diligence and discipline of the individual. This finding is in agreement with [5, 6] who found that there is no significant relationship.

Relationship between Age and Academic Performance of Undergraduates:

The third demographic variable showed that age is not a significant factor in determining academic performance. This finding is consistent with the one reported by [27] However, the finding is at variance with [9] who reported a
significant influence of age. The plausible reason for this finding could be that all participants were 16 years and above; they were of age, and so understand what university education entails. Maturity is a positive index which influence concept and construct understanding. Furthermore, [28] explains that adolescence is a period the individual develops ability to engage in deductive reasoning and understanding of abstract ideas. This help the individual become capable of seeing multiple potential solution to a problem and think more scientifically about the world around them.

Relationship between Level and Academic Performance of Undergraduates:

Results showed that level is not a significant factor that determines academic performance of undergraduates. The reason for this finding could be that the university community is an avenue where knowledge is acquired and practiced. This increases the generic skills of team work and, communication is self-reliant from the inception of admission.

CONCLUSION

From the findings of this study, it is clear that the family is a very important aspect of every individual’s life. The type of emotional tide in any family influences students’ academic performance irrespective of age, level or gender. Family is an ocean that should be made up of component such as love, care, appreciation and acceptance. These constructs positively influence the individual and enhance confidence, courage and strength that boost participation in academic activities and, in turn, influence academic performance. It is therefore, important that parents should be good models that can effectively assist their children’s development.

RECOMMENDATIONS

a. The home emotional climate is a potent factor that influence academic performance. Counselors should develop programmes where parents should be educated on ways to create conducive psychological environment that would enhance academic performance among students.

b. Students should be educated on the need to be determined and diligent in order to achieve their educational goals irrespective of age, level and gender.

REFERENCES


