



“THE EFFECT OF FAMILY TYPE ON THE ACADEMIC PERFORMANCE OF ENGINEERING STUDENTS IN INDIA”

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ABSTRACT:

Purpose: Research in the field of family studies have become a dynamic study area over the past few decades and is likely to become even more so as the importance of family is rapidly gaining momentum. Therefore understanding family studies and birth order will be viewed as increasingly important.

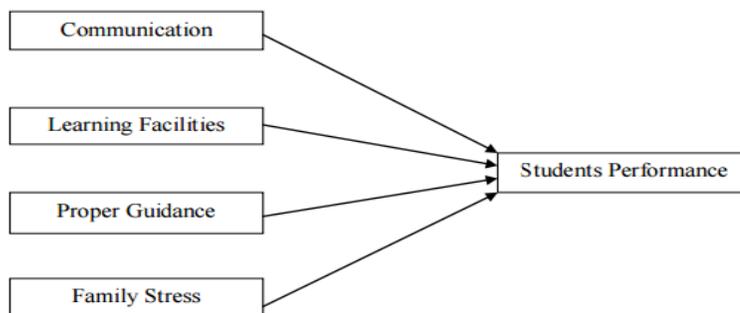
India has been regarded as the youngest country in the world by the UN as it has the world's second largest population. Family type is one of the most neglected component in the Indian education system due to the complexity in its computation. Family shapes an individual's personality, measured by big 5 personality traits of an individual (Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism) and controls the behavior of the person which has a strong relationship with the academic performance. This article aims at examining the relationship between Academic performance and family type of Engineering students.

Keywords: Academic Performance, Family type, Education, Academics, Families and Engineering students

I. INTRODUCTION

Academic Performance

According to the dictionary: “Academic Performance is the outcome of education — the extent to which a student, teacher or institution has achieved their educational goals.” Student Performance Galiher (2006) and Darling (2005), used GPA to measure student performance because their main focus was on the student performance for the particular semester. Some other researchers used test results or results of the previous year since they were studying performance for the specific subject or year (Hijazi and Naqvi, 2006 and Hake, 1998). Irfan Mushtaq & Shabana Nawaz Khan conducted a research on private colleges in Rawalpindi and Islamabad to check the effect of independent variables on dependent variables. By using the appropriate statistical package SPSS, it is found that communication, learning facilities, proper guidance and family stress are the factors that affect the student performance. (Irfan Mushtaq and Shabana Nawaz Khan, 2012)



Muhammad Riaz Ahmad; Muhammad Khalid Pervaiz; Muhammad Aleem (2010) stated that the students' academic performance may be affected by various external factors other than their personal characteristics. In this study, a questionnaire was used for data collection and its reliability was assessed by Cronbach Alpha. (Ahmad, Muhammad Riaz; Pervaiz, Muhammad Khalid; Aleem, Muhammad 2010) Kyoshiba Martha (2005) investigated the factors affecting academic performance of undergraduate students of Uganda Christian University. Data was collected from 340 respondents and the findings revealed that there was a significant relationship between parents' social economic status and academic performance and a significant relationship between former school background and academic performance. Parents' social economic status is important because parents provide high levels of psychological support for their children through environments that encourage the development of skills necessary for success at school. That location, ownership and academic and financial status of schools



do count on making a school what it is and in turn influencing the academic performance of its students because they set the parameters of a students' learning experience.(Kyoshaba Martha 2005)This study highlights the different factors that effect academic performance which are also effectd by Emotional Intelligence. Therefore it can be determined that Emotional intelligence is related to the academic performance of individuals.

Family type

According to Pixbay 2010, Family can be classified as the following;

Nuclear Family: Nuclear families, also known as elementary or traditional families, consist of two parents (usually married or common law) and their children. Nuclear families may have one or more children who are biological or adopted, but the main idea is that the parents are raising their kids together in the family home.

Single Parent: Single parent families consist of one parent with one or more kids. In these cases, the parent either never married, is widowed, or divorced. A paper by Ellwood, D.T., and Jencks, C. (2004) talks about how single-parent families have been on the rise since the 1960s when divorce rates started going up (and so did births happening out of wedlock). They suggest that these changes could be due to many different factors, from changing morals in society to increasing arguments over gender roles.

Joint Family:While most people would identify nuclear families as being the 'traditional' family type, in different cultures extended families are much more common and have been around for hundreds of years. Extended families are families with two or more adults who are related through blood or marriage, usually along with children.



II. LITERATURE REVIEW

Studies on Academic Performance

Irfan Mushtaq & Shabana Nawaz Khan (2012) conducted a research on private colleges in Rawalpindi and Islamabad to check the effect of independent variables on dependent variables. By using the appropriate statistical package SPSS, it is found that communication, learning facilities, proper guidance and family stress are the factors that affect the student performance.

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Studies on Academic Performance and Family Type

Joshi, Rajesh (2009) studied and concluded that Academic Perfomance is effected by the family.This 5 year longitudinal study tested this hypothesis with 50 developing nuclear families. The dimensions of differentiation of self that were examined were goal direction and academic performance. A qualitative analysis of participants goals demon starring nuclear families, when compared with couples with lower functioning families, placed more emphasis on family goals had more balance between family and personal goals and pursued more goals over the 5 years. The quantitative analysis supported the hypothesis that goal effectiveness and Academic performance were associated with nuclear family



Conclusion Drawn from Literature

Family type has a direct impact on the academic performance of students.

The studies conducted so far clearly state that Family type has a direct impact Academic performance.

The extent to which it impacts varies from situation to situation and all other factors involved.

III. RESEARCH GAP

There is hardly any information between Academic performance and Family type of university students in India.

This research aims at filling this gap by understanding how family type impacts Academic performance in Engineering students.

IV. RESEARCH METHODOLOGY

Objectives of the study:

To examine the differences in Academic performance of Engineering students across, type of family .

Hypothesis

- H0= There is no significant difference in the Academic performanceof Engineering students across family type
- H1= There is a significant difference in the Academic performanceof Engineering students across family type

Sample Design

There are 10 Universities in Bangalore, which is a combination of Central/State and Private Universities offering Bachelors of Engineering .For the purpose of this study 3 Universities have been considered , which is Bangalore University(State University), Christ University (Private University) and Jain University (Private University).5 different colleges under these universities have been considered .

1. BMS College of Engineering
2. PESIT
3. RV College of Engineering
4. Christ University
5. Jain University

252 students sample was drawn from the above mentioned colleges as they seemed to be a perfect blend of both state and private university .The questionnaire was administered for these students.

Inclusion Criteria

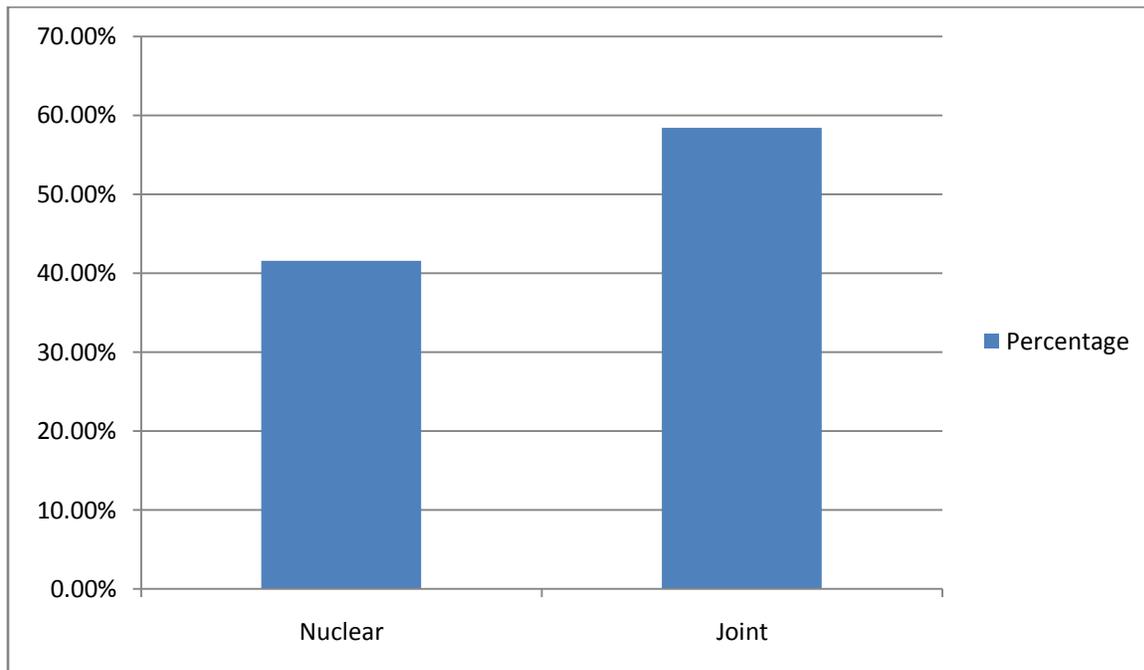
Undergraduate-Engineering students of 5 different colleges.

Sample Profile

Table 1: Indicating the percentage of respondents based on Family Type

Family Type	Frequency	Percentage
Nuclear	105	41.6%
Joint	147	58.4%

Figure 1: Bar Graph indicating percentage of respondents based on Family Type.

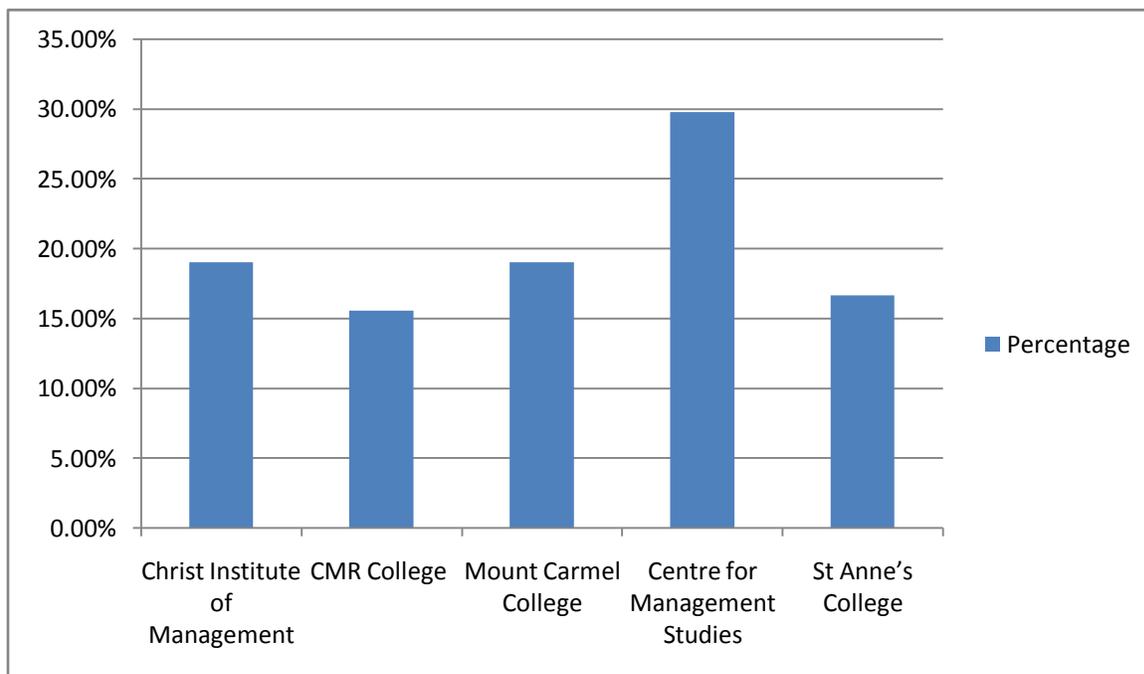


The table and chart show that 41.6% of students are from nuclear family, and 58.04% of students are from joint family have answered the Emotional Intelligence questionnaire.

Table 2 Indicating the College of the respondents in percentage

College	Frequency	Percentage
Christ University	48	19.04%
BMS College of Engineering	39	15.57%
PESIT	48	19.04%
Jain Univeristy	75	29.76%
RV College of Engineering	42	16.66%

Figure.2:Bar Graph indicating percentage of respondents based on the college



The table and chart show that there are 29.6% of students from JAIN UNIVERISTY, 19.04% of students from PESIT and Christ University, 16.66% of students from RV College of Engineering and 15.57% of students from BMS College of Engineering have answered the Emotional Intelligence questionnaire.

Sampling Technique

Convenient sampling was used to administer the questionnaire for the sample.



Tool adopted for data collection

The tool used for this study is “Warrier’s EI Questionnaire”. It consists of 14 demographic questions and 80 Emotional Intelligence Quotient Questions with 16 sub categories such as Self awareness ,Self esteem /confidence, Self motivation, Self management, Optimism , Resilience, Tolerance to ambiguity/ Intuition, Empathy, Stress coping skills, Relationship skills, Influencing others, Nurturing others, Networking skills, Values, Believes and Attitude, Assertiveness and Conflict management skills.

The tool was developed to measure the Emotional intelligence of a student.

The tools has been standardized and the cronbach alpha for the tool was reported at .89. The face validity for the tool has also been conducted on 20 counselors and M.Sc Psychology students.

V. DATA ANALYSIS

Normality Tests

- **Skewness and Kurtosis**

The skewness and kurtosis values were computed for the UG Performance of students to study the normality of the sample .The values are tabulated in Table

Table 3 Skewness and Kurtosis values to test normality

Variable		Statistic	Std. Error	Z value
UG Percentage-Academic Performance	Skewness	-.223	.153	1.45
	Kurtosis	-.479	.306	1.56

- **Analysis**

The above table clearly indicates that the Z values of skewness and kurtosis of UG performance is < 1.96. Skewness and kurtosis values show that the sample is approximately normally distributed.

- **Histograms**

Histogram is used to determine normality graphically, the histogram indicates that the data does not deviate grossly from the bell-shaped normal distribution, confirming that the data is approximately normal.

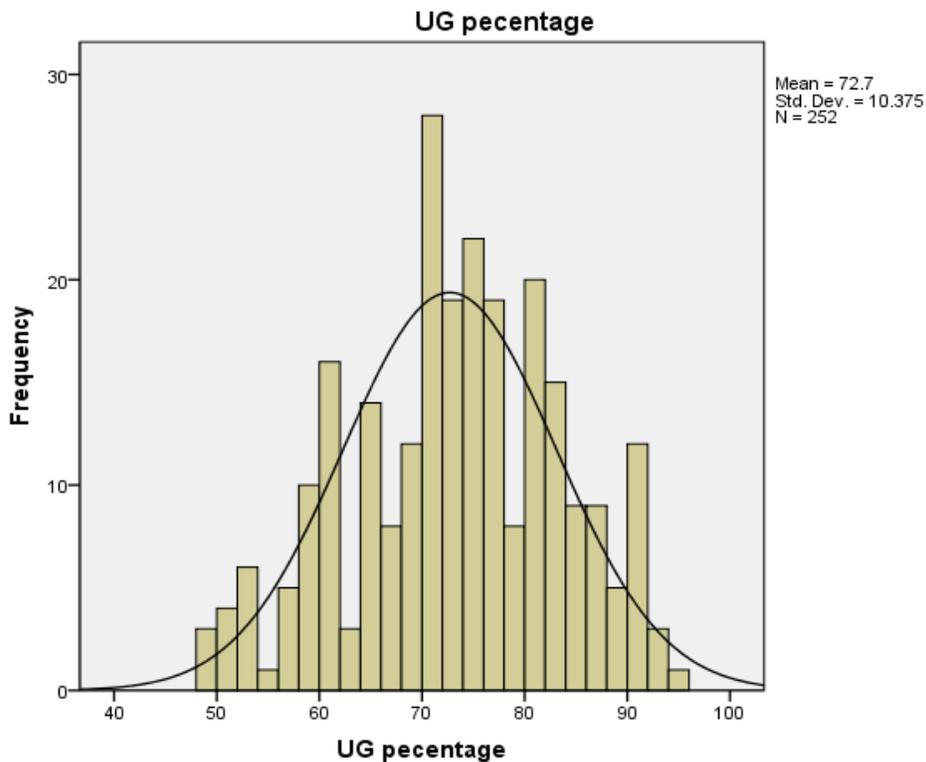


Figure 3 showing the normality of the UG percentage of students

- **Interpretation**

In conclusion, regarding skewness and kurtosis, data are a little skewed and kurtotic for the sample. It can be assumed that the data are approximately normally distributed in terms of skewness and kurtosis and further parametric tests could be applied for analysis of data.

- **T-Test**

An independent-samples t-test is conducted to compare Academic Performance across family types

Table 5: Indicating the group statistics and independent samples Test for testing the relationship between Family Type and Academic Performance

Type of Family	N	Mean	Std. Deviation	d/f	t value	sig level	
Academic Performance	Nuclear	105	72.27	9.672	250	-.558	.578
	Joint	147	73.01	10.872		-.569	.570

- **Analysis**

An independent-samples t-test is conducted to compare Academic Performance across family types. For Nuclear (M=72.27, SD=9.672) and Joint (M=73.01, SD=10.872); conditions: $t(250) = -0.558$, $p=0.578 > 0.05$. (in other words the significance value is more than 0.05) There is no significant difference in Academic Performance across family type

The null hypothesis is accepted: There is no significant difference in the academic performance of Engineering students across family types

- **Interpretation**

The family type either joint or nuclear does not affect the academic performance of an individual. Student's academic progress is not based on their family type.

VI. FINDINGS OF THE STUDY

No significant differences were found between family type (Joint or Nuclear) and academic performance. It was found that the family type of a person whether joint or nuclear does not affect his/her academic performance.

VII. CONCLUSION

Academic Performance has attracted the interest of researchers, educationists and the leaders of the education world. This study confirms that Family types does not play a significant role in the Academic Performance of students.



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