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A Study of Subject as Correlate of Academic Achievement among Degree Students in Puducherry

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Abstract: ***In this world of advancements in Science and Technology, a variety of subjects and courses are offered by various colleges, institutes, and universities of higher learning providing enough opportunities to students to pursue their higher studies as per their interest and aspirations. Irrespective of the courses available, it is the choice of subject by students that matters a lot towards their academic success and achievements. As such, what is most important is the right choice of subject of study in alignment with one's area of interest, aspiration, aptitude, aims, goals, and priorities. This choice of subject/course, if done well or addressed appropriately, would result in greater focus, involvement, concentration, earnest endeavours, and achievement, and success towards attainment of one's aims, goals, aspirations & ambitions in life & career. Thus this study is designed & undertaken in such a way as to study the correlations if any between choice of subject & Academic Achievement of students at the level of Higher Education wherein 310 First Year Degree students constituted the sample of this study covering various subjects and colleges functioning under both Government and Private Management in Puducherry, India. The Results of the study had clearly established a positive and significant correlation between choice of subject of study by students with that of their level of Academic Achievement. Thus this study and findings have once again reestablished the reality & importance of choice of subject of study by students at the level of Higher Education & its significant correlation or influence in respect of their Academic Achievement and Success.***

Keywords: Academic Achievement, choice of subject, First year Degree Students & Puducherry.

I. INTRODUCTION

In this present world of advancement in Science & Technology, specialisation and academic attainments in all fields of activity have become indispensable to achieve one's goals and ambitions in life and career. Although hundreds of subjects, courses, specialisations are offered worldwide, covering subjects like Science, Arts, Maths, Business, Medicine, Engineering, Technology etc the most important necessity and requirement is the right and appropriate choice of subject or course of study made in alignment with one's abilities, capability, capacity, skills, aptitude, interests, aims, goals, aspirations, attitude & objectives of life and career.

Thus irrespective of courses & subjects of study offered and its affordability in the field of Education it is very important and pertinent that students make the right choice of subject / course as well the right Institution to pursue the same so as to be very successful not only in Academic Performance but also excel in their Trade or specialisation. As such it is only in view of the importance of the choice of subject/course for one's Academic Achievement & Success that this study was undertaken in the light and findings of various research studies done in this area entitled "A Study of Subject as Correlate of Academic Achievement among Degree Students in Puducherry".

II. THE IMPORTANCE OF ACADEMIC ACHIEVEMENT

Education is the basic requirement of any human being to understand, identify and develop the latent talents, skills and potentialities. It starts at the age of four and goes on until one wishes to acquire the same. As such age is no bar for acquiring knowledge and learning new things in any field of activity. It does not only lead to individual development but ultimately results in the growth of the Nation.

The importance of achievement and best performance needs no explanation or introduction. Hence it is only through very best performance and Achievement that the goals and objectives of Education are realised. As such academic achievement and success at all levels of study has been a very favourite topic of research for years together. Many researchers in the field of Education have highlighted the importance of education through their findings.

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Human being the very best and unique creation of GOD is always blessed with the superior intelligence than any other being on Earth. As such to make the best use of this intelligence as well as to apply the same at work is very much required or expected of any individual to be most successful in life and career. As such Schools, Colleges, Institutes and Universities play a significant role in shaping the personality of child or student towards best performance and achievement. Hence academic achievement is considered as very significant criteria to assess one's potentialities and capacities. Thus academic achievement plays a very important role in Education as well as in the Teaching-learning process.

It is only in the light of the facts expressed that at most importance is given to the study of correlates of academic achievement so that, research and findings would throw much light on the ways and means by which academic achievement and performance of student could be improved or enhanced. This research has been aimed or designed in the back drop of the facts mentioned so that the findings of variables studied would be much beneficial to Educational and Social planner in India and Abroad.

III. REVIEW OF RELATED STUDIES

The Importance & significance of Academic Achievement in all spheres of study is indispensable for success in life and career. Several research studies have brought out this reality. While many cognitive & Non-cognitive factors as well Socio-Emotional & socio-Demographic aspects tend to Impact or Influence Academic Performance of students at all levels, it is important to mention that choice of subject of study plays a significant role in their Academic Performance and Achievement.

Many researchers in the world across nations have studied the correlation between choice of subject of study/course by students and that of their Academic Performance and Achievements. As such in view of various factors that may influence the choice of study by students, there is a great need for Research and Review in this field. As Academic Performance and Achievement by the students at all levels of learning is very significant and essential to attain one's goal and ambition in life especially in this most competitive world where every grade point or mark counts a lot, the study of the correlation between choice of subject/course by students with that of their Academic Performance and Achievement gains momentum & relevance. Although very many scholars have studied this relationship in various methods in isolation as well in association or inter correlation with other variables such as achievement motivation, aptitude, gender etc, the studies conducted by the following viz 1. Abiola . O., (2012), 2. Aminu & Timothy (2014), 3. Bell M. J., (2013), 4. Blossfeld et al (2011), 5. Boaz Shulruf et al (2010), 6. Cargil, M.D. et al (2012), 7. Francesco Berlingieri et al (2023), 8. Ilobe E., (2018), 9. Israel et al (2022), 10. Larsen M.S., et al (2013), 11. Lassibille G & Gomez L.N., (2008), 12. Lien Demulder. et al (2024), 13. Mercy Igere (2017), 14. Sharm (2012), 15. Shumba A & Naong M. (2012), 16. Spiess, C. & Wrohlich, K. (2010), 17. Vossensteyn J. J, et al (2015). have contributed a lot in understanding the significance of the correlation between choice of subject of study & Academic Performance or achievement of students.

IV. SIGNFICANCE OF CHOICE OF SUBJECT OF STUDY

1) Enhanced Motivation for better achievement & performance: Students who pursue their subject of interest & choice feel happy & motivated to study with interest & involvement. This motivation, interest and involvement eventually lead to better performance ultimately resulting in better Academic Success & Achievements.

2) Aspiration for better career with enhanced creativity: The ability to think and decide with independence is very much reinforced on account of favoured choice of subject at all stage of study. Students are inspired by the amount of opportunities they could avail with the required job potential & are encouraged to apply their subject knowledge & skills in the career of their choice.

3) It may be inferred that the greater the interest and involvement in the subject of study preferred, greater is the performance & Achievement in life & career. As such choice of subject by students on their own but guided well by Teachers, learned Parents & Institutions results in Dedicated & Skilled Man Power which would eventually contribute to the Progress & growth of a Nation.

4) It may be also construed that such students or the students community on the whole who do not waste their precious Academic Achievement period of their life also pass out with distinction availing in full the Financial, Technological, Infrastructural, Expert Teaching / Training facilities & Highly Qualified Academia without any loss to self, one's family, the Institution, Society & the Government at large.

5) It goes without any mention that better choice of subject by students made with all personal Interest, aptitude & commitment invariably prevents dropout, wastage & stagnation at all levels of Learning be it Secondary or Higher Education. This prevention & avoidance of dropout, wastage & stagnation in schools & colleges not only saves Time, Money & Effort but builds a Strong, Sustaining, Qualified & Skilled Workforce most contributing & essential for individual Success, Achievement, Development & Growth as well Progress and Prosperity of any country in the world.

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6) In view of the above much importance is required to be given for the study of the correlation between choice of subject of students with that of their academic performance and achievement. As such this study gains significance in this context where the positive and significant correlation between subject and academic achievement has been strongly justified by various research studies as cited.

V. RESEARCH METHOD

A. Objectives of the Study

1) To study the level of Academic Achievement (AA) among first year degree students studying Arts, Science and Engineering Subjects in Puducherry.

2) To find out the relationship between academic achievement and Subject of Study among first year Arts, Science and Engineering Degree students in Puducherry.

B. Hypothesis tested

H.O. No significant relationship is identifiable between the scores of students on academic achievement and Subject of Study.

C. Sample

In this study 310 first year degree students were involved in the research process covering various subjects - Arts, Science and Engineering from various Institutions – both Government and private in Puducherry.

D. Variables

As far as this study is concerned, academic achievement is considered as a dependent variable and Subject of Study as an independent variable.

E. Tools

Academic achievement scores of first year University Exams.

F. Statistical Techniques

Analysis of variance (ANOVA) technique has been used, using SPSS software to study the significance of differences among the various groups in relation to academic achievement.

G. Analysis and Interpretation of Data

The research data collected from 310 first year degree students were analysed and interpreted after studying their MEAN, MEDIAN and STANDARD DEVIATIONS before employing the technique of ONE WAY ANALYSIS OF VARIANCE (ANOVA).

VI. TESTING OF THE HYPOTHESIS

“No significant differences are identifiable between the students grouped on the basis of their subjects (Art, Science, and Engineering) with regard to their scores on academic achievement”

The above hypothesis was verified using ANOVA technique. The results of the analysis are presented in Table Given below.

Summary Of Anova

Source of variation	Sum of Squares	Df	Mean Square	F	Sig
Between Groups	3263.259	2	1631.630	12.345	.000
Within Groups	40576.576	307	132.171		
Total	43839.835	309			

Verification of the above table indicated that the calculated value of "F" in relation to academic achievement is greater than the table value. Since the calculated value is greater than the table value, the null hypothesis cannot be accepted at 0.05 level of significance. Thus the obtained value of "F" indicates that there is a significant relationship which can be attributed between academic achievement and Subject of Study among the first year degree students involved in this research in Puducherry.

VII. COMPARISON WITH OTHER STUDIES:

This research finding is much in correlation with other research findings in the same area of study conducted by 1. Abiola . O., (2012), 2. Aminu & Timothy (2014), 3. Bell M. J., (2013), 4. Blossfeld et al (2011), 5. Boaz Shulruf et al (2010), 6. Cargil, M.D. et al (2012), 7. Francesco Berlingieri et al (2023), 8. Ilobe E., (2018), 9. Israel et al (2022), 10. Larsen M.S., et al (2013), 11. Lassibille G & Gomez L.N., (2008), 12. Lien Demulder. et al (2024), 13. Mercy Igere (2017), 14. Sharm (2012), 15. Shumba A & Naong M. (2012), 16. Spiess, C. & Wrohlich, K. (2010), 17. Vossensteyn J. J, et al (2015). were Choice of Subject of Study has played a significant role in enhancing performance in general and academic performance in particular.

VIII. FINDINGS

The results arrived at as seen in the given Table generated by the statistical Technique ANOVA very much highlights that subject as an Independent variable exhibits a significant correlation with that of Academic Achievement of Degree (college) students at the level of Higher Education in Puducherry.

IX. CONCLUSION

It has become evident from the findings of this study that choice of subject of study by students correlates with that of their Academic Achievement. This finding is also substantiated by many other similar findings of researches who all have established a significant correlation between students choice of subjects and Academic Performance & Achievement. This research findings along with similar other findings have a lot of significance in respect of Achievement & success of students in all their Academic pursuits & endeavours. As such all parties involved such as Parents, Students, Teachers, Institutions, NGO's, & Government Organisations are expected to plan, counsel, educate, create awareness, disseminate Knowledge & information, take steps & organize various Activities in such a manner that the student community at all levels especially those moving from Secondary to Higher secondary as well Higher Secondary to Institutions of Higher learning—be it Arts, Science, Medicine, Humanities, Social Sciences, Engineering and Technology etc are adequately informed, motivated, enlightened & guided as to enable them make the right choice in respect of the subjects of study towards their greater future, success & Achievement in life and career.

X. SUGGESTIONS

1) Students should be properly guided to choose the right subject as per their aptitude and interest.

2) Institutions should take care that enough information is provided to students & Parents about available courses in various fields as well subjects involved along with their value, current relevance & Future prospects through various programmes and Activities.

3) Programmes such as Academic / Career counselling could very well be organised so that students join the courses of their choice as per their interest & ambitions in life with a futuristic vision and scope for employability.

4) These counselling programmes could very well be organised by various Institutions at the Secondary, Higher Secondary levels so that they could move forward with confidence to choose their subjects / course for their Higher Studies in alignment with their Interest, Aims & Goals.

5) In a similar fashion colleges and Institutes of higher learning should arrange programmes in such a way so that students & Parents as well are introduced to new courses & subjects offered to have a clear picture of their current significance & potential for employability as well their futuristic need, standing & demand for further specialisation, Research & Recognition.

6) As such if academic initiatives and activities are planned and executed in the light of the above findings it would favour students and parent & facilitate apt, suitable, relevant, job specific & appropriate choice of subject at all levels of study besides fostering a successful, bright, fruitful and prosperous future life and career.

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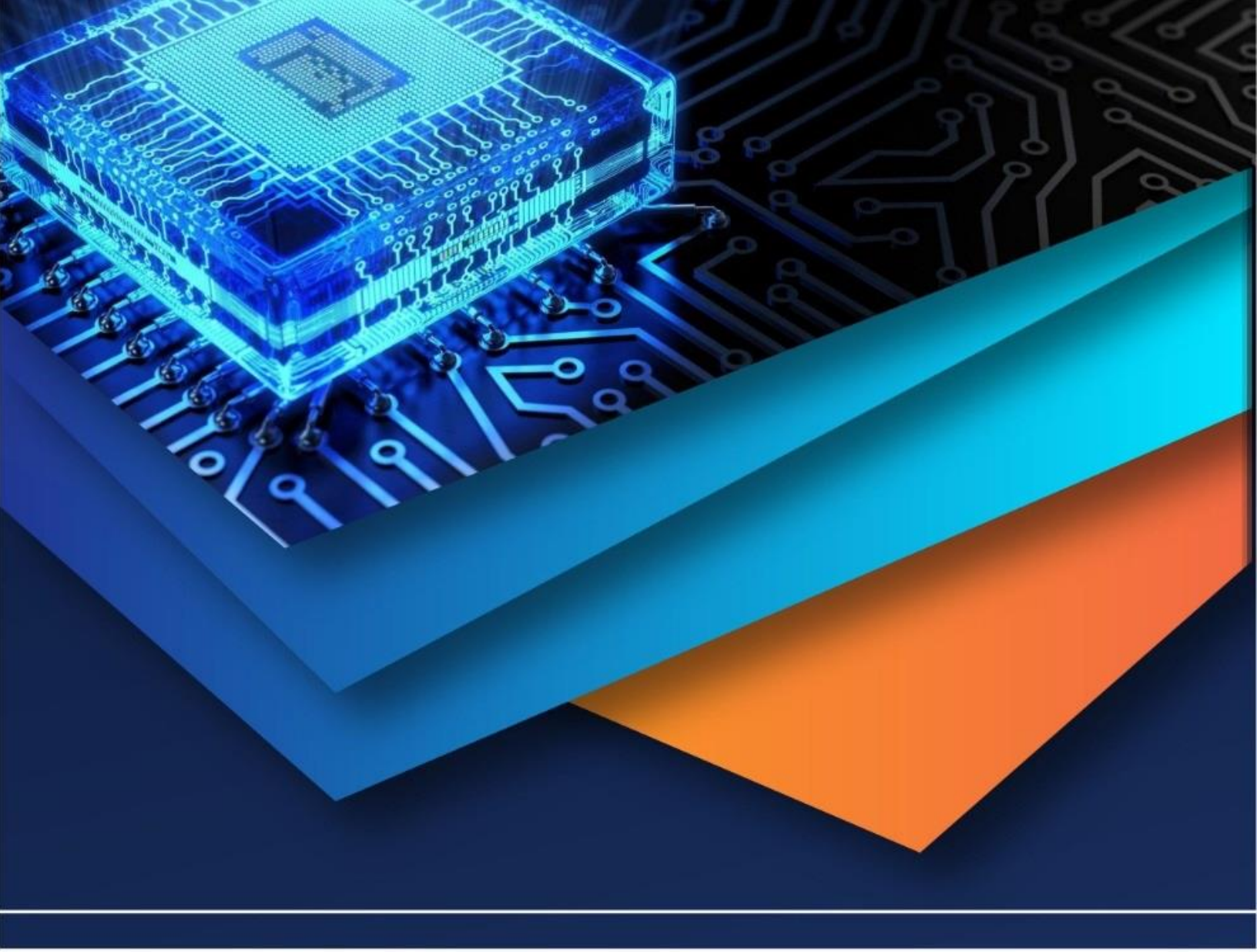

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