# A REPORT OF SOCIO - ECONOMIC BACKGROUND ON ACADEMIC ACHIEVEMENT OF B.SC. - I STUDENTS IN SATARA DISTRICT 

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#### Abstract

This conceptual paper studies the influence of parent's socio - economic status and educational background on their pupil's education in Satara district. The Paper reviews literature on how socio - economic status and educational background of the parents affects the education of their pupil's, examine the role of Parent's socio - economic status and their educational background on the educational process of their pupil's. This theory is appropriate for the study because it allows the reader to understand. Are students education is significantly affected by the socio - economic status and educational background of their parent's? Conclusions from literature were drawn, and the paper concludes that parents educational and socio - economic backgrounds does not influenced the education of their pupil's.


Key Words:- Socio - economic status, Educational background, Parent's, Pupil's,Satara.

## I. INTRODUCTION

In this area of globalization and technological revolution, education is considered as a first step for every human activity, It plays a vital role in the development of human capital \& is linked with an individual's well being \& opportunities for better living ( Battle \& Lewis , 2002).
The quality of students of performance remains at top priority for education. It is meant for making a difference locally, regionally, \& globally, educators, trainers and researchers have long been interested in exploring variable contributing effectively for quality of performance of learners. These variables are insides \& outsides school that affects student's quality of academic achievement. These factors may be termed as student factors, family factors, college factors \& other factors (Crosnoe Johnson \& Elder, 2004). The formal investigation about the role of these demographic factors rooted back in $17^{\text {th }}$ factory (Mann 1985) Generally these factors includes geographical belongingness, ethnicity marital status, socioeconomic status(SES), parents education level, parental profession, income, religious affiliation, attendance, facilities in home. These are usually discussed under the umbrella of demography

## Objectives:

The main objectives of the study are
> Aanalyze the effect of Socio-Economic Status on quality of student's academic performance.
> Aanalyze the effect of attendance of student's achievement in subjects of statistics.
$>$ Aanalyze the effect of parent education on the student's achievement in subjects of statistics.

## Hypothesis

> There is no significant difference between effect on socio-economic status and quality of student's academic performance.
> there is no significant difference between effect on parental education and quality of student's academic performance.
> There is no significant difference between effect on student attendance and marks of students in statistics.

## Material and Method:

The descriptive study was conducted by using a survey method. The population was B.Sc. - I year student from Satara district. The sample was selected from the 9 colleges out of 20 colleges in the Satara district. Thus the sample consists of 754 students from a college.
In the college survey visit, all the present students were selected in the survey. A questionnaire method was adopted. A questionnaire was made \& that can fill by students under the guidance of Smt. Davari S. S. and
Smt. Kalbhor S. D. Total 752 questionnaire are collected from different colleges in Satara district.
After the completion of year the result of students are taken from respective colleges. All the above data are coded with the help of Microsoft Excel \&Analysis was done in Excel \& MINITAB.
The study was delimited only demographic factor such as area, parent education, parent income, socioeconomic status, attendance.
For selecting colleges we use convenient sampling, out of these students stratified random sampling technique

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was applied for the selection of the student for the sampling.

## Data Analysis:-





## A) Two means Test

$H_{0}: \mu_{1}=\mu_{2}$
i.e. There is no significance difference between parents education and marks of the students

$$
\mathrm{H}_{1}: \mu_{1} \neq \mu_{2}
$$

i.e. There is significance difference between parents education and marks of the students

|  | Mean | S.D |
| :---: | :---: | :---: |
| Parent Education | 1.275 | ----- |
| Total marks | 111.075 | ----- |
| $\mathrm{S}_{1}{ }^{2}=$ | 0.715667 | 0.512179487 |
| $\mathrm{~S}_{2}{ }^{2}=$ | 57.26026 | 3278.737821 |
| $\mathrm{~S}^{2}=$ | ---- | 1639.625 |
| $\mathrm{~S}=$ | ---- | 40.49228322 |

$$
\begin{aligned}
& \mathrm{t}=-12.1323 \\
& \operatorname{MOD}(\mathrm{t})=12.1323 \\
& \text { } \operatorname{TABLE} \operatorname{VALUE}(\mathrm{t})=1.990847 \\
& \text { B) Two means Test } \\
& \mathrm{H}_{0}: \mu_{1}=\mu_{2}
\end{aligned}
$$

i.e. There is no significance difference between area and marks of the students.

$$
\mathrm{H}_{1}: \mu_{1} \neq \mu_{2}
$$

i.e. There is significance difference between area and marks of the students.

|  | Mean | S.D |
| :--- | :---: | :---: |
| Area | 1.075 | ---- |
| Marks of Statistics | 111.075 | ---- |
| $\mathrm{s}_{1}{ }^{2}=$ | 0.266747 | 0.071153846 |
| $\mathrm{~s}_{2}{ }^{2}=$ | 57.26026 | 3278.737821 |
| $\mathrm{~S}^{2}=$ | ---- | 1639.404487 |
| $\mathrm{~S}=$ | ---- | 40.48956022 |

$\mathrm{t}=-12.1552$
$\bmod (\mathrm{t})=12.15519653$
$\operatorname{tab}(\mathrm{t})=1.990847036$
B) Two means Test
$\mathrm{H}_{0}: \mu_{1}=\mu_{2}$
i.e. There is no significance difference between area and marks of the students.
$\mathrm{H}_{1}: \mu_{1} \neq \mu_{2}$
i.e. There is significance difference between area and marks of the students

|  | Mean | S.D |
| :--- | :---: | :---: |
| Area | 1.075 | ---- |
| Marks of Statistics | 111.075 | ---- |
| $\mathrm{s}_{1}{ }^{2}=$ | 0.266747 | 0.071153846 |
| $\mathrm{~s}_{2}{ }^{2}=$ | 57.26026 | 3278.737821 |
| $\mathrm{~S}^{2}=$ |  |  |
| $\mathrm{S}=$ | ---- | 1639.404487 |
| --- | 40.48956022 |  |

$\mathrm{t}=-12.1552$

| S <br> 0.2970$=$ | R-Sq <br> $24.81 \%$ | $=$ | R-Sq(adj) <br> $0.00 \%$ | $=$ |
| :--- | :--- | :--- | :--- | :--- |
| Pooled StDev $=$ |  |  |  |  |
| 0.2970 |  |  |  |  |

$\operatorname{od}(\mathrm{t})=12.15519653$
$\operatorname{tab}(\mathrm{t})=1.990847036$
D) $\mathrm{H}_{0}: \mu_{1}=\mu_{2}$
i.e. There is no significance difference between Annual income and marks of the students. $\mathrm{H}_{1}: \mu_{1} \neq \mu_{2}$
i.e. There is significance difference between Annual income and marks of the students.

|  |  | Mean | S. D. |
| :---: | :---: | :---: | :---: |
| Annual income |  | 45800 | ---- |
| Total marks |  | 111.075 | ---- |
| $\mathrm{s}_{1}{ }^{2}=$ |  | 38293.87 | 1466420513 |
| $\mathrm{s}_{2}{ }^{2}=$ |  | 57.26026 | 3278.737821 |
| $\mathrm{S}^{2}=$ |  | ---- | 733211895.8 |
| $\mathrm{S}=$ |  | ---- | 27077.88573 |
| $\begin{aligned} & \hline \mathrm{t}=7.5458 \\ & \operatorname{Mod}(\mathrm{t})=7.5458 \\ & \operatorname{Tab}(\mathrm{t})=1.990847036 \end{aligned}$ |  |  |  |
| $\begin{array}{\|ll\|} \hline \mathrm{S} & = \\ 0.6222 \end{array}$ | $\begin{aligned} & \text { R-Sq } \\ & 26.97 \% \end{aligned}$ | $\begin{array}{l\|l} = & \text { R-Sq(adj) } \\ 2.37 \% \end{array}$ | $=\begin{aligned} & \text { Pooled StDev = } \\ & 0.6222 \end{aligned}$ |

E) Test and CI for One Proportion: Area, Marks of StatisticsOne-Sample Z

The assumed standard deviation $=56$

| N | Mean | SE Mean | $95 \%$ CI |
| :--- | :--- | :--- | :--- |
| 40 | 111 | 8.85 | $(93.65,28.35)$ |

## Correlations: 1) Marks of Statistics, Attendance

Pearson correlation of Marks of Statistics and attendance

$$
=0.323
$$

P-Value $=0.042$
2) Marks of Statistics, Annual income of parents

Pearson correlation of Marks of Statistics and Annual income of parents $=-0.175$
P -Value $=0.281$
3) Marks of Statistics, Residential Area

Pearson correlation of Total and Residential Area $=-0.083$
P -Value $=0.612$
General Regression Analysis: Marks of Statistics versus Attendance

Regression Equation
Marks of Statistics $=33.5391+22.8047$ attendance

## One-way ANOVA: Area versus Marks of Statistics:

| Source | DF | SS | MS | F | P |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Total | 189 | 16.3561 | 0.0865 | 0.98 | 0.555 |
| Error | 562 | 49.5574 | 0.0882 |  |  |
| Total | 751 | 65.9136 |  |  |  |

## One-way ANOVA: Income versus Marks of Statistics

| Source | DF | SS | MS | F | P |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Marks of |  | 920398000 | 4869831 | 1.0 | 0.3 |
| Statistics | 189 | 000 | 574 | 3 | 95 |
|  |  | 262011000 | 4729448 | --- |  |
| Error | 554 | 0000 | 385 | - | ---- |
|  |  | 354051000 |  | --- |  |
| Total | 743 | 0000 | --- | - | --- |


| $\mathrm{S}=$ | R-Sq |
| :--- | :--- | :--- | :--- |
| 68771 | $26.00 \%$ |$=$| R-Sq(adj) $=0.75 \%$ |
| :--- | | Pooled |
| :--- |
| StDev |
| 68771 |$\quad$|  |
| :--- |

One-way ANOVA: Qualification versus Marks of Statistics

| Source | DF | SS | MS | F | P |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Marks of Statistics | 189 | 80.23 | 0.424 | 1.1 | 0.212 |
| Error | 561 | 217.205 | 0.387 | ---- | ---- |
| Total | 750 | 297.435 | ---- | ---- | ---- |

One-way ANOVA: Attendance versus Marks of Statistics

| Source | DF | SS | MS | F | P |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Marks of Statistics | 189 | 155.451 | 0.822 | 1.22 | 0.042 |
| Error | 561 | 377.87 | 0.674 | ---- | ---- |
| Total | 750 | 533.321 | ---- | ---- | ---- |


| S = 0.8207 | R-Sq <br> $29.15 \%$ |
| :--- | :--- | :--- | :--- | :--- |$=$| R-Sq(adj) |
| :--- |
| $5.28 \%$ |$\quad$| Pooled StDev |
| :--- |
| $=0.8207$ |

## One-Sample Z: Marks of Statistics, Parents Income:

The assumed standard deviation $=1$

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| Variable | N | Mean | $\begin{aligned} & \text { StDe } \\ & \mathrm{v} \end{aligned}$ | SE <br> Mean | 95\% CI |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Marks of | 75 | 117.6 | 50.04 |  | (117.615,117 |
| Statistics | 2 | 86 | 3 | 0.036 | .758) |
| Parents | 75 | 6208 | 6870 |  | (62083.9,620 |
| Income | 2 | 4 | 3.1 | 0 | 84.0) |

Test and CI for One Proportion: Area
Event $=2$

| Variable | X | N | Sample p | $95 \%$ CI |
| :--- | :--- | :--- | :--- | :--- |
| Area | 73 | 752 | 0.097074 | $(0.076863,0.120508)$ |

## Paired T-Test and CI: Parents Income, Marks of Statistics Paired T for Income - Marks of Statistics

|  | N | Mean | StDev | SE Mean |
| :--- | :--- | :--- | :--- | :--- |
| Income | 752 | 62084 | 68703 | 2505 |
| Total | 752 | 118 | 50 | 2 |
| Difference | 752 | 61966 | 68707 | 2505 |

$95 \%$ CI for mean difference: $(57048,66885)$
T -Test of mean difference $=0(\mathrm{vs}$ not $=0): \mathrm{T}$-Value $=24.73$
$P$-Value $=0.000$

## CONCLUSION

From above we conclude that,

- The most of the students got second class and least of the student get distinction. And most of the students get second class with their parents income below Rs. 50000/-. Also most of the students are come from rural area in Satara district for B. Sc. - I year.
- There is considerable correlation between Marks of Statistics and attendance of students. There is negligible correlation between Marks of Statistics and their Parents education, Marks of Statistics and annual income of parents \& Marks of Statistics and Residential area i.e. Rural and Urban.
- Marks of Statistics B.Sc. - I year students increases by 22.8047 times as per attendance. We can predict the marks of Statistics students using their attendance.
- The analysis of variance table indicates that the quadratic relationship between marks of Statistics students and their attendance is significant
( $\mathrm{P}=0.0422$ )
- There is no significance difference in the mean of total marks of students between the two different groups i.e. rural and urban, There is no significance difference between marks of student and the Educational Problems, marks of students and their attendance, marks of student and the Home Facilities, marks of students and their qualification, marks of student and the Parents Service.


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## Questionnaire

- Name of the Student:
- (Surname first)
- Caste/ religion :
- Father / Gradient full name:
- Total member of family:
- Education and occupation of head of the family:
- Annual income:
- Is any concession in education: E.B.C./B.C./Primary teacher student/
- SoldierChild/Handicapped/Sanstha's servant
- Extra activity in art and sports:
- Art, drawing, speech, dance, music, acting etc.
- Sport and Sport name:
- In which level you play? College/ State/ National
- a) How come you college? Walk/ Bicycle/ S.T/ Railway.
- b) You live in hostel? Yes / No.
- c) Are you live in free room? Yes/ No.
- Passed exam: Percentage:
- a) Are you doing a job? Yes/ No.
- b) If Yes, Part time/ full time.
- For cost of living do you work anywhere?
- Are you have any educational problems? Like
- Library ii) Travelling iii) Hostel iv) Electricity
- v) do you get sufficient time
- Other problems:
- Attendance: i) $0-25 \% \quad$ ii) $26-50 \% ~$ iii) $51-75 \% \quad$ iv) $76-100 \%$
- Tuition for statistics: Yes/No.
- Home facilities:
- Study room ii) Computer iii) Internet iv) Inverter

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