

# Education Analytics In School Governance Authority

**Sachin. H. Hulageri**

Research Scholar of Pregon University, Licensed of University of Atlanta,  
USA

**Abstract:** *School Governance is one of the critical activity in the Education system. School Governance Authority will be formed by choosing people from different areas of society. Decisions taken by of School Governance Authority will have vital influence on school & educational growth. Analytics on School Governance Authority will be helpful in school development.*

**Keywords:** *School Management, Governance, Education.*

## I. INTRODUCTION

School Governance Authority will be formed by different kind of personalities and from different service area of a society. Members will be differed by Age, Financial Status, Gender, Proximity to school, Profession, Education Qualification. These factors may influence decision taken by School Governance Authority. It's important to analyse these factors using statistical methods. Some other factors are also need to analyse using statistical methods.

## II. DETAILS

SGA may include employing & paying teachers, providing revenue for schools, determining education programs & levying taxes in support of education. SGA plays very powerful role in bringing school, children & parents on the same platform and brings standards & discipline in education organization.

SGA members need to be formed with different areas of society like education experts, business experts, formers and professionals. This versatile combination will help in school improvement in all angles.

In this research, we are introducing data analytics methodology to analyse and interpret the School Governance Authority forming, roles and responsibility using statistical methods.

**Data Collection:** As sample school data has been captured for analysis. Data collected using primary data collection methods and secondary data collection methods. In primary method questionnaire provided to SGA members and requested to recorded their responses. In secondary data collection method, data collected from already existing records.

With due respect of school confidentiality and integrity, we are not disclosing the school name and any kind of personal information which may reveal identity. No opinion presented on the results, only statistical inference is furnished.

**Methodology:** We are using data science & statistical methodology to analyse and infer the data. Performed descriptive and inferential statistical methods.

- ✓ Used t-tests to analyse the samples and sample portions.
- ✓ Used chi-square tests check the independence between variables (Categories).
- ✓ Data normality distribution test.
- ✓ User factor analysis and clustering for analysing data.
- ✓ Correlation between data collected.
- ✓ Methodology is scalable and can be extended to any other geographic levels.

### A. GENDER DISTRIBUTION AMONG SCHOOL MEMBERS

Analysed gender distribution among the SGA members. Checked with members are equal number in gender means member distribution is independent of gender.

| Gender Distribution - School |        |           |            |
|------------------------------|--------|-----------|------------|
| Sl No                        | Gender | Frequency | Percentage |
| 1                            | Male   | 10        | 55%        |
| 2                            | Female | 8         | 45%        |
| 3                            | Total  | 18        | 100        |

Table 1: Gender Distribution - School

Check for equal distribution of gender among members.

Test: Chi-square Test for Independence at confidence level 95%

Null Hypothesis: Ho: Member distribution is independent of Gender.

Alternative Hypothesis: Ha: Member distribution is dependent of Gender.

| chi-square Value | P-Value | df |
|------------------|---------|----|
| 0.22222          | 0.6374  | 1  |

Table 2: Chi-square test results for school gender distribution

Interpretation:

- ✓ P-Value (0.6374 > 0.05) comes under acceptance area;
- ✓ Null Hypothesis (Ho) accepted.
- ✓ Gender distribution is statically equal among members and member distribution is independent of gender.

#### B. FINANCIAL CONDITION

Analysed financial condition of SGA members and classified as below poverty line, above poverty line and rich members. Poverty line limit need to be considered by the number defined by local government authority.

| Financial Status Distribution |                    |           |            |
|-------------------------------|--------------------|-----------|------------|
| Sl No                         | Finance Level      | Frequency | Percentage |
| 1                             | Below Poverty Line | 2         | 11%        |
| 2                             | Above Poverty Line | 12        | 67%        |
| 3                             | Rich               | 4         | 22%        |
|                               | Total              | 18        | 100        |

Table 3: Financial Condition status among the SGA members of school

Check for equal distribution of Finance Status among members.

Test: Chi-square Test for Independence at confidence level 95%

Null Hypothesis: Ho: Member distribution is independent of Financial Status.

Alternative Hypothesis: Ha: Member distribution is dependent of Financial Status.

| Chi-square Value | P-Value  | df |
|------------------|----------|----|
| 9.3333           | 0.009404 | 2  |

Table 4: Chi-square test results for school Financial Status distribution

Interpretation:

- ✓ P-Value (0.009404 < 0.05) comes under rejection area.
- ✓ Null Hypothesis (Ho) Rejected.
- ✓ Financial distribution is statically not equal among members and member distribution is dependent of Financial status.

#### C. AGE ANALYTICS

We analysed the age distribution of SGA members. Age groups are classified in the range and checked for normality of data.

SGA Members Age: 55,59,42,30,32,60,52,57,58,40,64,69,68,65,56,67,71,69

| Age Distribution |       |           |            |
|------------------|-------|-----------|------------|
| Sl No            | Age   | Frequency | Percentage |
| 1                | 21-30 | 1         | 5.56       |
| 2                | 31-40 | 2         | 11.11      |
| 3                | 41-50 | 1         | 5.56       |
| 4                | 51-60 | 7         | 38.89      |
| 5                | 61-80 | 7         | 38.89      |
|                  | Total | 18        | 100        |

Table 5: Age Distribution among the SGA members of school

Normality Check of Age Distribution

Test: Shapiro-Wilk Test for Age- Normal Distribution at confidence level 95%

Null Hypothesis: Ho: SGA Members Age is normally distributed.

Alternative Hypothesis: Ha: SGA Members Age is not normally distributed.

| Shapiro-Wilk normality test | P-Value |
|-----------------------------|---------|
| W=0.8875                    | 0.03497 |

Table 6: Age Normality check the SGA members of school

Interpretation:

- ✓ P-Value (0.03497 < 0.05) comes under rejection area.
- ✓ Null Hypothesis (Ho) Rejected.
- ✓ SGA members age is not normally distributed.

|     | Minimum | Median | Mean  | Max |
|-----|---------|--------|-------|-----|
| Age | 30      | 58.5   | 56.33 | 71  |

Table 7: Descriptive Analysis of SGA members age

#### D. PROFESSIONAL ANALYTICS

SGA members will have primary profession along with school membership responsibility. Versatility in the members professions will help in school improvement in all aspects. Diversity in the members profession helps to reach and get support from all communities. Here we analyse diversity of the profession of SGA members using pie chart analysis.

| Profession Distribution |                             |           |            |
|-------------------------|-----------------------------|-----------|------------|
| Sl No                   | Profession                  | Frequency | Percentage |
| 1                       | Teaching                    | 3         | 16.67      |
| 2                       | Business                    | 5         | 27.78      |
| 3                       | Technology                  | 2         | 11.11      |
| 4                       | Farmer                      | 2         | 11.11      |
| 5                       | Politician or Social Worker | 6         | 33.33      |
|                         | Total                       | 18        | 100.00     |

Table 8: Profession diversity members of school

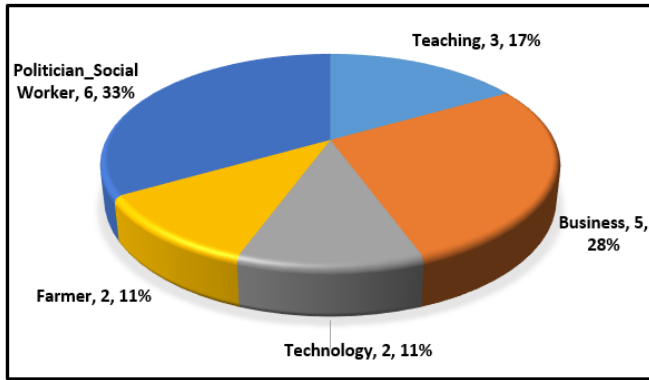


Figure 1: Members distribution with percentage in Pie chart of School

Interpretation:

- ✓ More than 60 % of members are engaged in active public as Business, Politician and Social Worker.

### E. EDUCATION QUALIFICATION DISTRIBUTION

SGA formed will have verity in the Gender, Age, Profession and Location which also composed with different educational qualification. Different education qualification bring different experience that helps to map the mind with parents and understand the circumstances. Here we analysed distribution of education qualification and classified as Illiterate, Primary, College, Graduation and Post-Graduation (Masters).

| Sl No | Profession      | Frequency | Percentage | Cumulative |
|-------|-----------------|-----------|------------|------------|
| 1     | Illiterate      | 1         | 5.56       | 5.56       |
| 2     | Primary         | 3         | 16.67      | 22.22      |
| 3     | College         | 6         | 33.33      | 50.00      |
| 4     | Graduation      | 5         | 27.78      | 77.78      |
| 5     | Post-Graduation | 3         | 16.67      | 94.44      |
|       | Total           | 18        | 100.00     |            |

Table 9: Educational Qualification distribution of members of school

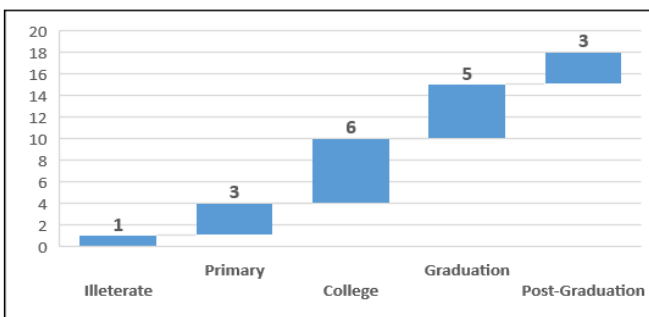


Figure 2: Members Educational Qualification distribution with percentage in Pie chart of School

Interpretation:

- ✓ Less than 50% (8/18) are graduate and above.

### F. GOVERNMENT PROGRAMS AWARENESS

Government introduce and promote educational programs or schemes in every phase of education of life cycle for all stake holders of the school. It important to know level of awareness about Government schemes. Here we analyse whether more 50% of members have awareness about Government programs.

Government Programs Awareness among SGA Members.

| Vote | Awareness |
|------|-----------|
| YES  | 7         |
| NO   | 11        |

Table 10: Government Programs Awareness

Check for more than 50% of SGA members are aware.

Test: t-Test at confidence level 95%

Null Hypothesis: Ho: Awareness  $\geq 9$ .

Alternative Hypothesis: Ha: Awareness  $< 9$ .

| t- Value | P-Value | df |
|----------|---------|----|
| -72.83   | 2.2e-16 | 17 |

Table 11: t-test results for school

Interpretation:

- ✓ P-Value ( $2.2e-16 < 0.05$ ) comes under rejection area.
- ✓ Null Hypothesis (Ho) Rejected.
- ✓ Less than 50% of members are not aware of Government Programs.

### III. CONCLUSION

By performing statistical analysis on different factors of school governance authority members will help to corelate the influence of these factors on decisions taken by them. Any kind of adverse impacts can be corelate with factors and identify improvement areas.

### REFERENCES

- [1] Bruner. J. : The process of education
- [2] Knezevich Stephan J: Administration of Public Education, Hamper and Row Publisher, New York ,USA
- [3] Mathur S.S :Education Administration and Management, Ambala Cantt Publisher, India
- [4] Educational Psychology Books and papers published