

APPENDIX D

The Chi-square Formula Computed

Chi-square test was applied to compare the mean scores obtained with those to be expected theoretically in the case of CG/ST students' Aspirations, feelings of diffidence, Rejection feeling, Self conception, their perception of the school and their perception of the teacher.

The following Chi-square formula for testing agreement between observed and expected results was used.

$$\chi^2 = \sum \frac{(fo - fe)^2}{fe}$$

in which, fo = Frequency of occurrence of observed facts.

fe = Expected frequency of occurrence on some hypothesis.

The following are the computed results.

Ex-1 Father's/Guardians Education and the Aspirations of the CG/ST students.

fo	27.20	25.13	24.35	25.06	22.65
fe	24.87	24.87	24.87	24.87	24.87

$$.218 + 2.7 \times 10^{-3} + .611 + 1.45 \times 10^{-3} + .19$$

$$\chi^2 = .43$$

$$\text{degree of freedom} = 4$$

$$F = 2.488$$

$$= R.S.$$

H₁-2

Father's/Guardian's occupation and the Aspirations of the SC/ST students.

fo	24.89	27.03	25.31
fe	25.91	25.91	25.91

$$.04 + .04 + 3.6 \times 10^{-3}$$

$$\chi^2 = .088 \quad \text{Degree of freedom} = 2$$

$$P = 5.991 \quad \underline{H_0.}$$

H₁-3

Mother's Education and the Aspirations of the SC/ST students.

fo	27.43	26.31	24.24
fe	25.99	25.99	25.99

$$.079 + 3.6 \times 10^{-3} + .11$$

$$\chi^2 = .2 \quad \text{Degree of freedom} = 2$$

$$P = 5.991 \quad \underline{H_0.}$$

H₁-4

Size of the Family and the Aspirations of SC/ST students

fo	24.55	25.76	25.32
fe	25.21	25.21	25.21

$$.017 + .011 + 4.7 \times 10^{-4}$$

$$\chi^2 = .029 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₁-5

No. of Earning members in the Family and the Aspirations of SC/ST students.

fo	24.46	25.75	26.28
fe	25.49	25.49	25.49

$$.041 + 7.6 \times 10^{-4} + .024$$

$$\chi^2 = .091 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₁-6

No. of non-earning members in the Family and the Aspirations of the SC/ST students.

fo	24.13	25.37	26.12
fe	25.21	25.21	25.21

$$.04 + 1 \times 10^{-3} + .03$$

$$\chi^2 = .08 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₁-7

Facilities Available in the House and the Aspirations of the SC/ST students.

fo	25.56	25.21	25.39
fe	25.38	25.38	25.38

$$1.27 \times 10^{-3} + 1.1 \times 10^{-3} + 3.9 \times 10^{-6}$$

$$\chi^2 = 2.4 \times 10^{-3} \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

Π_1-9

Deletives Staying outside Village and the Aspirations of the SO/ST students.

fo	25.58	25.35
fe	25.47	25.47

$$4.7 \times 10^{-4} + 5.6 \times 10^{-4}$$

$$\chi^2 = 1 \times 10^{-3} \quad \text{degree of freedom} = 1$$

$$P = 3.841$$

 Π_2-9

Father's/Guardian's Education and the feeling of Diffidence amongst SO/ST students.

fo	26.1	25.64	26.08	27.13	27.72
fe	26.57	26.57	26.57	26.57	26.57

$$9.3 \times 10^{-3} + .02 + 9 \times 10^{-3} + .01 + .049$$

$$\chi^2 = .098 \quad \text{degree of freedom} = 4$$

$$P = 9.488$$

 Π_2-10

Father's/Guardian's Occupation and the feeling of Diffidence amongst SO/ST students.

fo	26.32	25.47	26.83
fe	26.20	26.20	26.20

$$5.4 \times 10^{-4} + .02 + .015$$

$$\chi^2 = .036 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₂-11 Mother's Education and the feeling of Diffidence amongst the SC/ST students.

fo	26.42	27.08	25.94
fe	26.48	26.48	26.48

$$1.35 \times 10^{-4} + .013 + .011$$

$$\chi^2 = .024 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₂-12 Size of the Family and the feeling of Diffidence amongst SC/ST students.

fo	27.48	25.11	25.92
fe	26.17	26.17	26.17

$$.065 + .042 + 2.3 \times 10^{-3}$$

$$\chi^2 = .11 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₂-13 No. of Earning members in the family and the feeling of Diffidence amongst SC/ST students.

fo	25.97	26.66	25.45
fe	26.03	26.03	26.03

$$1.3 \times 10^{-4} + .015 + .012$$

$$\chi^2 = .028 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₂-14 No. of Non-earning members in the Family and the feeling of Diffidence amongst SC/ST students.

fo	27.22	25.83	25.37
fe	26.32	26.32	26.32

$$.074 + 7.3 \times 10^{-3} + .034$$

$$\chi^2 = .115 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₂-15 Facilities available in the House and the feeling of Diffidence amongst the SC/ST students.

fo	25.56	26.09	25.85
fe	25.83	25.83	25.83

$$2.8 \times 10^{-3} + 2.6 \times 10^{-3} + 1.5 \times 10^{-5}$$

$$\chi^2 = 5.4 \times 10^{-3} \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₂-16 Relatives staying outside the village and the feeling of Diffidence amongst the SC/ST students.

fo	24.34	26.14
fe	25.24	25.24

$$.03 + .03$$

$$\chi^2 = .064 \quad \text{degree of freedom} = 1$$

$$P = 5.841$$

H₃-17 Father's/Guardian's Education and feeling of 'rejection' among the SC/ST students.

fo	40.8	39.86	41.26	41.48	44.31
fe	41.54	41.54	41.54	41.54	41.54

$$.013 + .067 + 1.2 \times 10^{-3} + 3.6 \times 10^{-5} + .18$$

$$\chi^2 = .26 \quad \text{degree of freedom} = 4$$

$$P = 9.488$$

H₃-18 Father's/Guardian's Occupation and the feeling of 'rejection' among the SC/ST students.

fo	42.16	40.37	41.43
fe	41.32	41.32	42.32

$$.017 + .021 + 2.9 \times 10^{-4}$$

$$\chi^2 = .038 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₃-19 Mother's Education and the feeling of 'rejection' among the SC/ST students.

fo	45.29	42.08	40.82
fe	42.73	42.73	42.73

$$.15 + 9.8 \times 10^{-3} + .08$$

$$\chi^2 = .24 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₃-20 Size of the family and the 'Rejection' feeling among the SC/ST students.

fo	41.64	39.78	41.84
fe	41.08	41.08	41.08

$$7.6 \times 10^{-3} + .041 + .014$$

$$\chi^2 = .063 \quad \text{degree of freedom} = 2$$

$$z = 5.991$$

H₃-21 No. of Earning members in the Family and 'Rejection' feeling among the SC/ST students.

fo	41.34	42.11	38.63
fe	40.69	40.69	40.69

$$.01 + .049 + .1$$

$$\chi^2 = .16 \quad \text{degree of freedom} = 2$$

$$z = 5.991$$

H₃-22 No. of Non-earning members in the family and 'Rejection' feeling among SC/ST students.

fo	40.25	41.55	40.25
fe	40.68	40.68	40.68

$$4.5 \times 10^{-3} + .018 + 4.5 \times 10^{-3}$$

$$\chi^2 = .027 \quad \text{degree of freedom} = 2$$

$$z = 5.991$$

H₃-23 Facilities available in the House and Rejection feeling among the SO/ST students.

fo	41.06	41.73	40.97
fe	41.25	41.25	41.25

$$8.7 \times 10^{-4} + 5.5 \times 10^{-3} + 1.9 \times 10^{-3}$$

$$\chi^2 = 6.3 \times 10^{-3} \quad \text{degree of freedom} = 2$$

$$p = 5.991$$

H₃-24 Relatives staying outside the village and 'Rejection' feeling among the SO/ST students.

fo	38.61	41.53
fe	43.07	40.07

$$.05 + .053$$

$$\chi^2 = .1 \quad \text{degree of freedom} = 1$$

$$p = 3.241$$

H₄-25 Father's/Guardian's Education and Self Conception of the SO/ST students.

fo	29.9	23.6	23.84	23.62	23.00
fe	23.79	23.79	23.79	23.79	23.79

$$1.23 + 1.5 \times 10^{-3} + 1.05 \times 10^{-4} + 1.21 \times 10^{-3} + .026$$

$$\chi^2 = 1.26 \quad \text{degree of freedom} = 4$$

$$p = 9.488$$

H₄-26

Father's/Guardian's Occupation and Self Conception of the SO/ST students.

fo	26.12	26.27	25.09
fe	25.82	25.82	25.82

$$3.4 \times 10^{-5} + 7.8 \times 10^{-3} + .02$$

$$\chi^2 = .032 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₄-27

Father's Education and Self Conception of the SO/ST students.

fo	27.71	25.55	24.78
fe	26.01	26.01	26.01

$$.11 + 8.1 \times 10^{-3} + .052$$

$$\chi^2 = .177 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₄-28

Size of the Family and Self Conception of the SO/ST students.

fo	25.11	24.44	25.35
fe	24.96	24.96	24.96

$$9 \times 10^{-4} + .01 + 6 \times 10^{-3}$$

$$\chi^2 = .018 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₄-29No. of Earning members in the Family and Self-
Conception of 30/37 students.

fo	25.04	25.02	24.86
fe	24.97	24.97	24.97

$$1.9 \times 10^{-4} + 1 \times 10^{-4} + 4.8 \times 10^{-4}$$

$$\chi^2 = 7.8 \times 10^{-4} \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₄-30No. of Non-earning members in the family and self
Conception of the 30/37 students.

fo	24.79	25.01	24.47
fe	24.75	24.75	24.75

$$6.4 \times 10^{-5} + 2.7 \times 10^{-3} + 3.1 \times 10^{-3}$$

$$\chi^2 = 5.9 \times 10^{-3} \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₄-31Facilities available in the House and Self
Conception of 30/37 students.

fo	24.12	24.71	25.46
fe	24.76	24.76	24.76

$$.016 + 1 \times 10^{-4} + .019$$

$$\chi^2 = .036 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₄-32 Relatives staying outside the village and self
conception of the SC/ST students.

fo	24.45	24.79
fe	24.62	24.62

$$1.17 \times 10^{-3} + 1.17 \times 10^{-3}$$

$$\chi^2 = 2.3 \times 10^{-3} \quad \text{degree of freedom} = 1$$

$$F = 3.841$$

H₅-33 Father's/Guardian's Education and the SC/ST
students' Perception of the school.

fo	66.9	66.8	64.51	65.84	65.25
fe	65.96	65.86	65.36	65.86	65.86

$$.016 + .013 + .027 + 6 \times 10^{-6} + 5.6 \times 10^{-3}$$

$$\chi^2 = .063 \quad \text{degree of freedom} = 4$$

$$F = 9.488$$

H₅-34 Father's/Guardian's Occupation and the SC/ST
students' Perception of the school.

fo	64.32	66.56	65.86
fe	65.58	65.58	65.58

$$.024 + .014 + 1.1 \times 10^{-3}$$

$$\chi^2 = .04 \quad \text{degree of freedom} = 2$$

$$F = 5.991$$

H₅-35

Mother's Education and the SC/ST Students' Perception of the school.

fo	63.53	65.31	64.83
fe	64.57	64.57	64.57

$$.015 + 8.4 \times 10^{-3} + 1 \times 10^{-3}$$

$$\chi^2 = .025 \quad \text{degree of freedom} = 2$$

$$p = 5.991$$

H₅-36

Size of the Family and the SC/ST Students' Perception of the school.

fo	64.77	64.83	64.48
fe	64.69	64.69	64.69

$$9.8 \times 10^{-5} + 3.2 \times 10^{-4} + 6.8 \times 10^{-4}$$

$$\chi^2 = .001 \quad \text{degree of freedom} = 2$$

$$p = 5.991$$

H₅-37

No. of Earning members in the family and the SC/ST Students' Perception of the school.

fo	64.38	64.41	65.58
fe	64.79	64.79	64.79

$$2.5 \times 10^{-3} + 2.2 \times 10^{-3} + 9.6 \times 10^{-3}$$

$$\chi^2 = .014 \quad \text{degree of freedom} = 2$$

$$p = 5.991$$

H₅-38

No. of Non-earning members in the Family and the SC/ST students' Perception of the school.

fo	65.75	64.09	64.48
fe	64.77	64.77	64.77

$$.014 + 7.1 \times 10^{-5} + 1.2 \times 10^{-3}$$

$$\chi^2 = .023 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₅-39

Facilities available in the House and the SC/ST students' perception of the school.

fo	62.93	65.55	63.83
fe	64.1	64.1	64.1

$$.02 + .05 + 1.1 \times 10^{-3}$$

$$\chi^2 = .05 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₅-40

Relatives staying outside the village and the SC/ST students' perception of the school.

fo	63.56	64.25
fe	63.9	63.9

$$1.3 \times 10^{-3} + 1.3 \times 10^{-3}$$

$$\chi^2 = 3.6 \times 10^{-3} \quad \text{degree of freedom} = 1$$

$$P = 3.841$$

H₆-41 Father's/Guardian's Education and the SC/ST students' Perception of the Teacher.

fo	37.60	37.06	36.44	35.52	34.70
fe	36.20	36.20	36.20	36.20	36.20

$$.054 + .02 + 1.5 \times 10^{-3} + .012 + .06$$

$$\chi^2 = .15 \quad \text{Degree of freedom} = 4$$

$$P = 9.488$$

H₆-42 Father's/Guardian's Occupation and the SC/ST Students' Perception of the Teacher.

fo	35.45	36.88	35.75
fe	36.02	36.02	36.02

$$9 \times 10^{-3} + .02 + 2 \times 10^{-3}$$

$$\chi^2 = .031 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₆-43 Mother's Education and the SC/ST Students' Perception of the Teacher.

fo	35.00	37.57	35.19
fe	35.92	35.92	35.92

$$.024 + .075 + .014$$

$$\chi^2 = .114 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₆-44 Size of the family and the SO/ST Students' Perception of the Teacher.

fo	36.57	36.04	34.84
fe	35.82	35.82	35.82

$$.015 + 1.35 \times 10^{-3} + .026$$

$$\chi^2 = .0438 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₆-45 No. of Earning members in the family and the SO/ST Students' Perception of the Teacher.

fo	35.17	36.87	35.04
fe	35.69	35.69	35.69

$$7.5 \times 10^{-3} + 9 \times 10^{-4} + .01$$

$$\chi^2 = .02 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₆-46 No. of Non-earning members in the family and the SO/ST Students' Perception of the Teacher.

fo	36.38	36.45	35.26
fe	36.03	36.03	36.03

$$3.4 \times 10^{-3} + 4.8 \times 10^{-3} + 1.4 \times 10^{-3}$$

$$\chi^2 = 9.6 \times 10^{-3} \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₆-47

Facilities available in the House and the SC/ST Students' Perception of the Teacher.

fo	33.81	35.87	36.30
fe	35.33	35.33	35.33

$$.065 + 8.2 \times 10^{-3} + .026$$

$$\chi^2 = .1 \quad \text{degree of freedom} = 2$$

$$P = 5.991$$

H₆-48

Relatives staying outside the village and the SC/ST Students' Perception of the Teacher.

fo	35.14	35.64
fe	35.39	35.39

$$1.7 \times 10^{-3} + 1.7 \times 10^{-3}$$

$$\chi^2 = 3.5 \times 10^{-3} \quad \text{degree of freedom} = 1$$

$$P = 3.841.$$