CHAPTER 4

ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction

4.2 Identification of the Institutional Climate of the Affiliated Colleges

4.3 Dimension-wise Variations of Faculties and How They affect their Climate

4.4 Variations among Mean Perceptions of College Teachers of Different Academic Disciplines on Climate Dimensions

4.5 Testing Significance of Difference between College Principals' and Teachers' Mean Perceptions on ICDQ Dimensions

4.6 Institutional Climate of Colleges and Some influencing Variables

4.7 Morale Categories of the Colleges affiliated to The Gujarat University

4.8 Analysis of Factor-wise Scores of the CTMO With Regard to Four Groups of Variables

4.9 Relationship of Teacher Morale with Climate

4.10 Inter-Correlations among Climate Dimensions and Morale Factors

4.11 Student Control Ideology of College Teachers as measured by the SCI

4.12 The Student Control Ideology of Teachers in Three Climate Category Colleges

4.13 Interrelationship among College Climate Staff Morale and Student Control Ideology of the Teachers

4.14 Prediction of Climate by Regression Equation

4.15 Conclusion

4.1 Introduction

In the preceding chapter, the development of the three research instruments, viz. the Institutional Climate Description Questionnaire (the ICDQ), the College Teacher Morale Opinionnaire (the CTMO) and the Student Control Ideology (the SCI) was described and discussed at length. These research instruments were administered to 434 college teachers including principals of 122 affiliated colleges of the Gujarat University. The data yielded by the administration of these three research instruments along with some personal data information collected from each respondent will be analysed and interpreted in the present chapter. The hypotheses formulated for the purpose of this study will be the basis of analysing and interpreting the data. In most of the cases the data were collected by the investigator herself visiting the sampled colleges, staying on the campus for a day or two, meeting the staff members individually, and discussing with them points that emerged from her observations and which had a bearing on the theme of the present study. This was intended to serve three purposes, viz., (a) to clarify the purpose of the study to the respondents, (b) to allay any fears or misgiving, if there be any, in the minds of the teachers about keeping responses confidential and maintaining their

own and their institution's anonymity* and (c) to get a general feel of the institutions on the different dimensions of the tools which may be constructed as a counter check on the validity or truthfulness of the recorded responses on the items. Though the analysis of the data is mostly based on the responses from the respondents, a feed-back which the investigator received from the meetings with the teachers and principals will be reflected in the discussion of one or more contributory factors of climate, morale and student control ideology.

The data collected were analysed on the computer through these services available at the Physical Research Laboratory (the PRL), Ahmedabad. The analysis, as indicated in the section on research methodology in the previous chapter, is related to the dependent variable (climate) in the context of various independent variables, viz., faculty, or academic discipline, zone of the college, city-town location, size of the college, socio-economic status of teachers, etc., and it will take the form of testing the hypotheses formulated for the present study.

---

*Some of the respondents were hesitant to respond to the questionnaire actually, because they were afraid of expressing their opinions freely lest they should be victimised if their college principals or college management came to know that they responded to questions that revealed the 'inside story' of their college. This gave an idea to the investigator that academic view point is not free from fear.

The analysis and interpretation of the data will be presented hypothesis-wise.

4.2 Identification of the Institutional Climate of the Affiliated Colleges

The present study belongs to the category of the climate studies, only with this difference that it constitutes the first attempt, probably in India but definitely in the State of Gujarat, to study institutional climate of colleges.

In the State of Gujarat, there are seven universities.* Of these seven universities, the Gujarat University is the largest with 90,072 student enrolment. It has three categories of institutions, viz. - University Departments (mostly postgraduate instruction and research departments and - recognised research institution, located at its head quarters at Ahmedabad), Government Colleges and the bulk of private affiliated colleges numbering 194. (The figures are for the year 1974).

Two points need to be clarified here. The data fed into the analysis presented in the chapter were largely

---

The M.S.University of Baroda(1949), the Gujarat University (1949), the Sardar Patel University (1955), the South Gujarat University (1965), the Saurashtra University (1965), the Gujarat Vidyapeeth (1963) and the Gujarat Agricultural University (1972) * Year of recognition by the U.G.C.

collected during 1974-75 when the Democles' Sword on teachers of Pre-university Classes for retrenchment was not hanging as there was no decision firmly taken on the introduction of the 10 + 2 + 3 pattern of education which would result in the abolition of the Pre-university Classes in all colleges all throughout Gujarat, not alone in the colleges of the Gujarat University. The second point, the study makes use of the three climate typology in the place of the six climate typology mapped out by Halpin and Croft (1963). This study is not the first to make use of the three categories of climate. Earlier Sargent (1967) and later Samrong Pengnu (1976) and Kirit Gandhi (1977) have used three climate categories, viz. the Open Climate, the Intermediate Climate and the Closed Climate. Open and Closed climates are at opposite ends of a spectrum of institutional climates with the two extremes of climate only and the Intermediate Climate describes the in-between or the middle position. Sargent (1967:6) rightly observes that 'it is quite unlikely that a particular school is completely* closed or completely open. Rather, it is a matter of degree with each school revealing a tendency toward one extreme or the other. So, Sargent has preferred to speak in his study of relatively Open or

*The underlining is by the investigator.

relatively Closed climate schools. In the present study also, following the lead given by Sargent, the investigator would refer to relatively Open climate, relatively Closed climate and the in-between the two the Intermediate Climate. Here also, the investigator would like to underscore an observation made by Halpin(1966:93) that 'in social science research, findings are seldom as tidy as the investigators would like them to be.' It is possible that the attempts made by this investigator provide no exception. However, she would bear in mind her major objective which is to identify and probe into the organizational - institutional climate of affiliated colleges of the Gujarat University and deduce, to the possible extent, the psychological and administrative (coloured with sociological overtones) atmosphere, interaction patterns and relationships obtaining in them. She has increased interests in doing this because what colleges appear at the first sight are not what they are actually internally in psychological and sociological terms.

In identifying the institutional climate of the sampled affiliated colleges of the Gujarat University, her task was challenging. She could not make use of the procedures developed by Halpin (1966:166-174) because her research instrument (dimensions and items) and general factors and Varimax Rotational Solution were different.

She, therefore, had to take recourse to the procedures (vide - Appendix III) she developed with the assistance of some of the staff members of the Department of Educational Administration and of the Centre of Advanced Study in Education (of the M.S. University of Baroda.) Adopting these procedures, the investigator was able to identify institutional climate for each of the 122 sampled affiliated colleges. This is shown in Appendix IV.

The investigator is now equipped to test the hypotheses relating to her study which she formulated in her research plan outlined in Chapter II.

Her first hypothesis was as under :

'More affiliated colleges of Gujarat University would manifest Closed climate than either Intermediate Climate or Open Climate. (The Hypothesis I).

The investigator was led to formulate this hypothesis on the basis of the findings of some of the Indian researches on climate. Sharma, Buch and Rai (1971) found the maximum percentage (38.24) of Gujarat high schools possessing Closed climate. Kuldip Kumar's (1972) finding was that most of the sampled high schools, that is, 37.30 percent revealed Closed climate. Mubayi and Sharma (1973) found 47.83 percent of South Gujarat high schools showing Closed climate against 30.44 percent revealing Open climate. In studies by Mehra (1968), Sharma (1973), Neela Shelat (1975), Pandya (1975), Darji (1975), Kirit Gandhi (1977), the dominant trend was in favour of

Closed climate. Even Shah (1975), Franklin (1975) and Gupta (1977) who investigated organizational climate in institutions of higher learning reached the similar conclusion that more institutions have Closed climate than they have other types of climate. It was natural, therefore, that the present investigator would like to examine her own sample and find out whether the trend revealed in earlier studies is substantiated in her study also.

Table 4.1 given below classifies the sampled 122 affiliated colleges of the Gujarat University according to the three climate categories.

Table 4.1 : Climate-wise Distribution of the Sampled Colleges (N = 122)

Climate Type	No. of Colleges	Percentage
Open	29	23.77
Intermediate	34	27.87
Closed	59	48.36
Total	122	100.00

The above figures show that a little less than half the sampled colleges belong to the Closed Climate category, a little more than one quarter of them to the Intermediate Climate Category and a little less than one-quarter to the Open Category. This shows that the Hypothesis, viz., 'more

DISTRIBUTION OF COLLEGES ACCORDING TO CLIMATE CATEGORIES

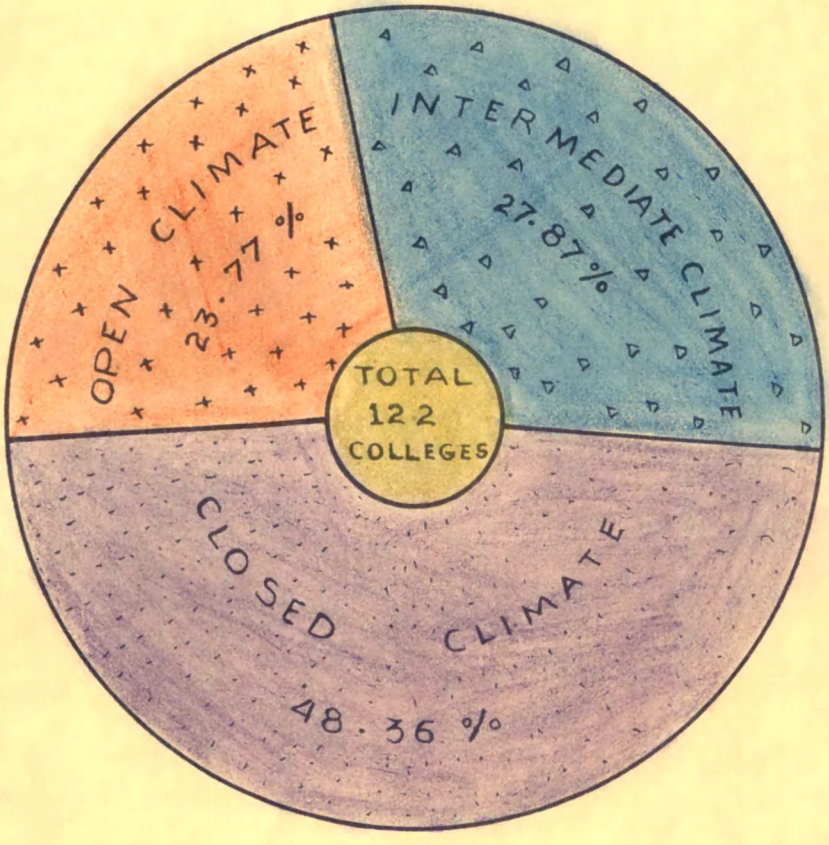


FIG. 4

affiliated colleges of the Gujarat University would manifest Closed climate to a greater extent than the Intermediate climate or Open climate is sustained.

Ivy Franklin (1975), using Halpin-Croft's OCDQ, had studied institutional climate of the colleges of education (N = 35) of Gujarat State. Her study revealed that 45.86 percent of the colleges leaned towards closedness of climate, 17.14 percent towards intermediary climate and 37.0 percent to openness of climate. Thus, the pattern of climate typology that emerges from the present study - more Closed Climate colleges than Intermediate and Open Climate categories is in confomity with the pattern manifested by Franklin's study, with this difference that in her study, colleges possessing Intermediate type of climate had a smaller proportion. But the nature of the sample of her study was rather different. She dealt with only the Colleges of the Faculty of Education whereas the present study includes colleges from all the Faculties of the Gujarat University including Education but excluding Medicine.

Shah (1975) had also studied institutional climate of Arts, Science and Commerce colleges of Central Gujarat. He also found that half of the sampled colleges (N = 34) belonged to the Closed Climate category,

17.6 percent to the Intermediate Climate Category and 32.4 percent had openness of climate.

This shows that in the Gujarat University, affiliated colleges tend to possess more closedness of institutional climate than openness of climate. A recent climate study by Sat Paul Gupta (1977) of the colleges of the Punjab State also revealed the same trend of greater number of closed climate colleges (range 12 to 71 percent) than the Open Climate Colleges (range 5 to 29 percent).

During her field visits to colleges, teachers complained of bureaucratic, stiff and impersonal attitudes of principals, their selfishness and scheming mentality, lack of recognition of their merits and unsatisfactory working conditions. Principals, on the other hand, accused teachers of lack of real academic and professional interest, trade unionism, idleness and absence of a professional vision and obscurity of goals. It is no wonder, therefore, that the present study reveals a greater number of Closed Climate colleges than the Open Climate ones.

Thus the research evidence available at the school and college stages in the state is clear. Both schools and colleges in Gujarat - probably in India too, tend toward closedness of climate to a greater extent than they tend towards openness of climate. This would mean that the Hypothesis I is not only substantiated by the analysed data but the

results show a distinct trend which is also revealed in other studies on organizational climate to the effect that schools and colleges in the country tend to be more closed than more open.

A good criterion to determine the validity of differences found in the number of open climate and closed climate affiliated colleges, is to determine how far these two extreme climate types differ in their dimensions which actually weave the texture of their fabric and apply the t-test technique to determine whether the differences in the mean scores of the 12 dimensions in the Open Climate and Closed Climate Colleges are <u>really</u> significant and not merely the result of chance affairs. This is done in the next few pages because they lend further support to the present Hypothesis.

It was stated earlier that the Open Climate and Closed Climate are the two climate types at the extreme ends of the climate continuum. Therefore, not only the mean scores of dimensions of Closed Climate on <u>positive behaviour</u> dimensions should be less than the mean scores of positive dimensions on Open Climate but on negative <u>behaviour dimensions</u> ; the mean scores of Open Climate should be lower than those of the closed climate. These would provide better criteria to judge whether the Closed Climate of the affiliated colleges are really significantly different from the Open Climate types.

It is with this purpose that the comparison of the mean scores of the colleges which were found to possess Open

Climate with those of colleges with Closed Climate is presented in Table 4.2 given on the next page.

Considering four dimensions of teacher behaviour of the ICDQ, 'Disengagement' and 'Hindrance' with negative orientations, their mean scores are actually found to be higher in Closed Climate colleges than their corresponding scores in Open Climate ones. (The mean scores on these two dimensions under Closed Climate are 62.00 and 60.96 respectively whereas they are 40.09 and 41.51 respectively in Open Climate). Again 'Aloofness' and 'Production Emphasis', the two dimensions of principals' behaviour also denote negative orientation. In Closed Climate colleges, the mean scores of these two dimensions are 63.71 and 51.25 respectively which are higher than the mean scores (35.77 and 41.31 respectively) of these two dimensions under Open Climate. Thus, the first part of criteria is satisfied.

'Esprit' and 'Intimacy' dimensions with regards to teachers' behaviour and 'Thrust' and 'Consideration' with regards to principals' behaviour have positive orientations. This means that their mean scores should be higher under Open Climate than their corresponding mean scores under Closed Climate. This actually is the case. The mean scores of 53.09 and 51.68 are respectively the scores of these two dimensions under Open Climate against the scores of 45.36 and 47.11 under

Table 4.2 : Comparison of Dimensionwise Mean Scores of the Sampled Colleges possessing Open Climate and Closed Climate

	Dimensions	Open Climate		Closed Climate		t test Value	Level of Significance
		Mean Score	S.D.	Mean Score	S.D.		
1.	Disengagement	40.09	8.89	62.00	6.31	11.00	.01
2.	Hindrance	41.51	6.39	60.96	5.63	12.64	.01
3.	Esprit	53.09	4.91	45.36	6.97	5.16	.01
4.	Intimacy	51.68	6.29	47.11	6.08	2.91	.01
5.	Aloofness	35.77	7.81	63.71	9.15	13.07	.01
6.	Production Emphasis	41.31	6.75	51.25	7.46	0.04	NS
7.	Thrust	52.17	6.84	47.82	3.85	3.00	.01
8.	Consideration	53.71	5.51	44.50	4.89	6.92	.01
9.	Organizational Structure	51.91	7.99	47.25	8.29	2.26	.05
10.	Communication	60.31	8.45	39.43	5.72	11.18	.01
11.	Human Relations	53.06	6.66	45.46	4.10	5.28	.01
12.	Democratic Decentralization-Freedom	56.03	5.43	45.50	6.12	7.23	.01

N =

Closed Climate. The mean scores of the other two principals' behaviour dimensions 'Thrust' (52.17) and 'Consideration' (53.71) are, as expected, higher under Open Climate category than their scores (47.82 and 44.50 respectively) under the Closed Climate category.

The operational effects of organizational structure should be less in Open Climate colleges than they are in Closed Climate colleges. This actually is the case revealed in the table, but the difference between the mean scores of the dimension under Open Climate category (51.91) is not very much less than its mean score (47.25) under the Closed Climate category. Perhaps, this gap can be explained by the fact that administration of most of the colleges in the country continues to be traditional and hierarchical even in the post-Independence period. But in other three dimensions of administrative behaviours, the mean scores (60.31, 53.06, 56.03 respectively) under the Open Climate category are higher than their corresponding respective mean scores (39.43, 45.46, and 45.50) under Closed Climate category.

It should further be noted that the t-values of the 11 dimensions (excepting the dimension of 'Production Emphasis') of Open and Closed climates are statistically significant, at either .01 level or at .05 level.

This would mean that the Hypothesis I is not only supported by the extremity of the Open and Closed Climates

but is substantiated by the t-values of their all, but one, dimensions. It would be safer to say that it is the significance of differences in the mean scores of dimensions that create climate differences.

4.3 Dimension-wise Variations of Faculties and How They affect their Climate

In the previous section, the climate-wise classification of the sampled affiliated colleges was presented. The conclusion that emerged was that the affiliated colleges of the Gujarat University manifested closed climate to a greater extent than they manifested Open Climate.

The Hypothesis II seeks to probe the above conclusion further. It assumes that there would not only be variations in regard to climate categories among the different Faculties (academic disciplines), but the Faculties of Arts and Education would be characterised by Open Climate to a greater extent, the Faculties of Law and Commerce by Intermediate Climate to a greater extent and the Faculties of Science and Engineering by Closed Climate to a greater extent.

The rationale for formulating the Hypothesis in this way is clear. The Faculty of Arts has colleges that provide general and liberal education. Therefore, there is a

possibility of humanistic perceptions and practices obtaining in this Faculty. There is more scope for upward-downward communication, and greater concern for meeting social needs satisfaction of staff and students. Colleges of Education should have more of openness of climate because the realization and appreciation of this climate category should be more by teachers and principals in them than in colleges of academic and other disciplines. Professional colleges are more task-achievement oriented and, therefore, they are likely to stress discipline, attendance, production and impersonal attitude which go with Closed climate.

The Table 4.3 presents classification of the Faculties of the Gujarat University according to the climate category.

The figures in the table show that (a) Arts Colleges or the Faculty of Arts have Closed climate to the greatest extent (41.9 percent) of all the Faculties; (b) the Science Colleges or the Faculty of Science (59.4 percent), Commerce Colleges or the Faculty of Commerce (61.1 percent) and Colleges of Education (45.4 percent), have the Intermediate Climate to the greatest extent and (c) the Engineering Colleges or the Faculty of Engineering (100.0 percent), and the Law Colleges or the Faculty of Law (60.0 percent) have Open Climate to the greatest extent. These results confirm the existence of variations with regard to climate typology

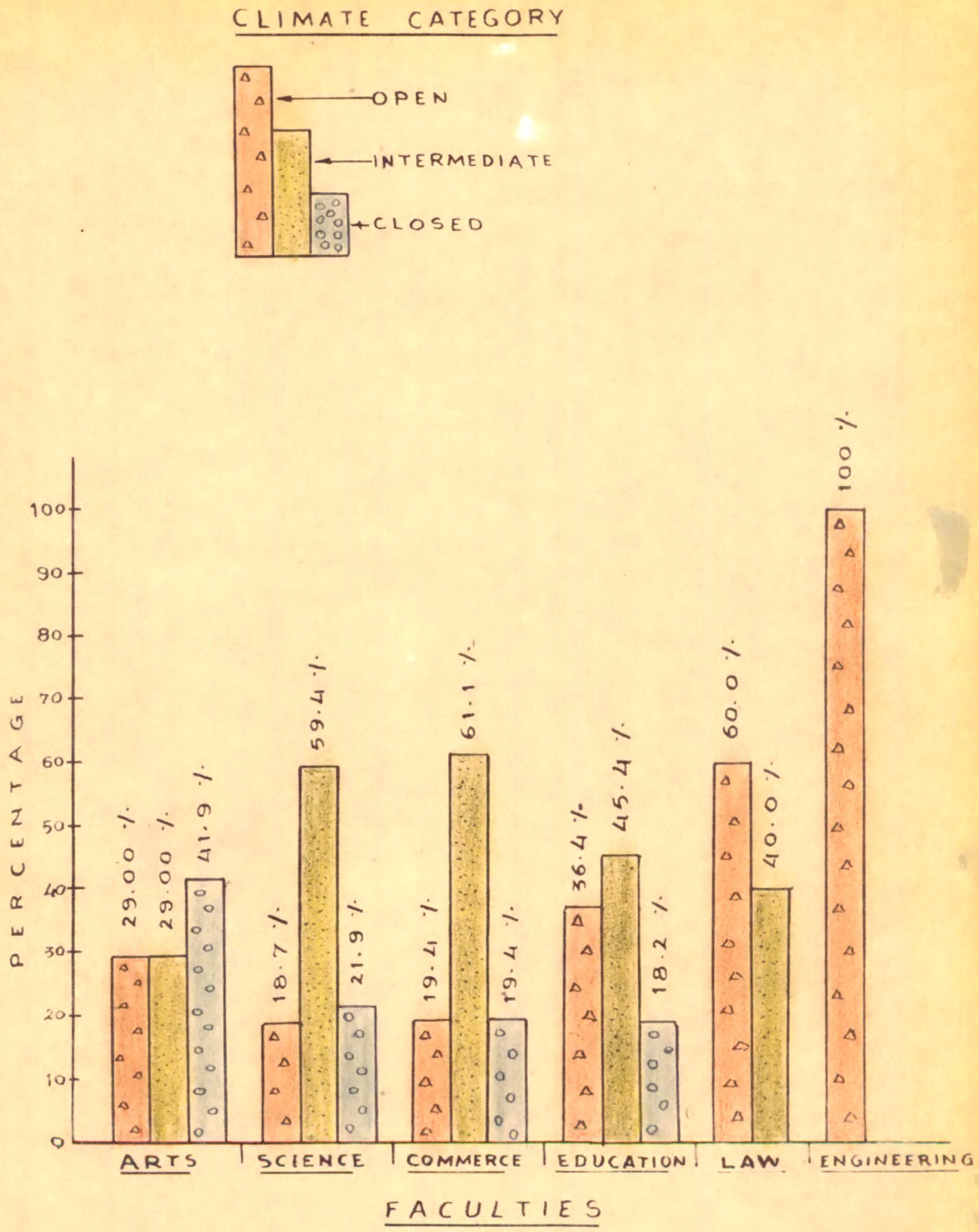
among the Faculties of the Gujarat University. But they go contrary to the climate for the Faculties stipulted in the Hypothesis.

Table 4.3: Percentage Distribution of the Faculties of Gujarat University according to Climate Category.

Faculties	Climate			Total
	Open	Intermediate	Closed	
Arts	29.5 (9)	29.5 (9)	41.0 (13)	100.00 (31)
Science	18.7 (6)	59.4 (19)	21.9 (7)	100.00 (32)
Commerce	19.4 (7)	61.1 (22)	19.4 (7)	100.00 (36)
Education	36.4 (4)	45.4 (5)	18.2 (2)	100.00 (11)
Law	60.0 (6)	40.0 (4)	-	100.00 (10)
Engineering	100.0 (2)	-	-	100.00 (2)

Note : Figures in parentheses indicate the number of Faculties - Colleges

The Hypothesis, therefore, fails in the case of Arts Colleges and the Colleges of Education (Faculty of Arts which manifest closed climate instead of the Open Climate to a greater extent as it was hypothesised.) It also fails



DISTRIBUTION OF COLLEGES ACCORDING TO CLIMATE CATEGORIES IN DIFFERENT FACULTIES.

FIG. 5

in the case of Faculty of Science which manifests Intermediate Climate to a greater extent, while it was hypothesised that it would manifest Closed Climate to a greater extent. The Law colleges (the Law Faculty) were stimulated to exhibit the Intermediate Climate to a greater extent while the actual results show that they possess Open Climate to a greater extent. In the Hypothesis, the Engineering Colleges (The Engineering Faculty) were assumed to be a Closed Climate to a greater extent whereas the results present the contrary picture - they are found to possess Open Climate. Thus, the Hypothesis fails in the case of the Faculties of Arts, Education, Science, Engineering and Law. It is sustained in the case of only Commerce Colleges (the Commerce Faculty) which manifest maximum category of Intermediate Climate as it was hypothesised.

How far these results stand the statistical test is shown in Table 4.4 (Part I and Part II) on the next page.

The F ratio of 2.14 is not significant. This would mean that though in terms of simple percentages colleges of different Faculties or academic disciplines seem to differ in their climate typology, statistical probe does

Table :4.4: College Climate and Mean Scores

Part I

Mean Climate Scores and the Number of Colleges in Each Climate Category

Climate Type	Open	Intermediate	Closed
N	263	234	101
Mean	43.83	46.80	25.25

Grand Sum = 598

General Mean = 38.62

Part II

Source of Variance	Sum of Squares	Degree of Freedom	Mean Squares
Between	2487.44	2	1243.72
Within	8705.67	15	580.38
Total	11193.11	17	

$F = \frac{1243.72}{580.36} = 2.14$

F at .05 = 3.68*

F at .01 = 6.36*

* Not significant

not indicate that colleges belonging to different academic disciplines differ significantly in terms of their climate type. This is a sad revelation or reflection on the sociological, psychological and administrative interaction patterns in university affiliated colleges. An affiliating university always finds a distance between its administration and the affiliated colleges spread over large areas. The rapport is missing. The live concern is often lacking. It appears that it is none's (particularly of the university) concern to improve the psychological atmosphere of colleges. This constitutes one of the worst limitations of affiliating universities, the only link of which with the affiliated colleges is the periodical committees (they are called Local Inquiry Committee) which they appoint to look into the affairs of the affiliated colleges (and these LIC Committees are also, in many cases, eye-wash). The other link that the parent university (the Gujarat University) has, is through holding different examinations which students of affiliated colleges take. Not only that the preparation and conduct of these examinations leave much to be desired, hardly any follow up work is done to do diagnostic studies and undertake remedial work. Much of the responsibility of improving the institutional climate of individual colleges befalls upon the colleges themselves. And the

greatest of all tragedies is that ~~hardly~~ college management, principals and teachers hardly realise that there is something like institutional climate and it is this climate which determines how high or low a college will go academically, psychologically, administratively and in social terms.

4.4 Variations among Mean Perceptions of College Teachers of Different Academic Disciplines on Climate Dimensions

It is at times argued that colleges belonging to different academic disciplines have so many things that distinguish them from one another that organizational or institutional climate in them cannot be same. This is further supported by the fact that the perceptions of parents, teachers and students of a college of one academic discipline about its own teaching, discipline, achievements, efficiency, work styles, examinations, students community, teacher quality, etc. are so different that they regard themselves distinctive from colleges of other academic disciplines. The tone of discrimination and difference is further accentuated by the fact that even society looks upon them with different eyes. One, therefore, gets a picture of not one university community rather of many university communities. In the same campus colleges of different disciplines form their own colonies and operate

in isolation, each thinking itself doing better teaching and doing more useful work. Isolation of educational institutions from one another, from the main academic stream and from other academic disciplines constitutes one of the weaknesses of higher education in India. In developing (and even in developed) societies some institutions like science, technology, engineering and medicine are considered more prestigious and important than institutions of liberal Arts, Education, Commerce and Law.

The present investigator felt curious to find out how institutions of different academic disciplines (called here 'Faculties') differ among themselves with regard to their teachers' perceptions on the different dimensions of the ICDQ. For the purpose of convenience, the investigator has made pairs of colleges belonging to different Faculties. She has formulated a Null Hypothesis which would give a clearer picture about the type of variations prevailing among colleges of different Faculties. The facts of variations or otherwise she would endeavour to determine by testing the null hypothesis.

The Hypothesis III is worded as under :

'There are no real differences between mean perceptions of teachers of different Faculties paired with one another about Institutional Climate dimensions as measured by the ICDQ (Baroda Form II).' (The Hypothesis III).

The Hypothesis stipulates that if one Faculty is paired with any other Faculty, the perceptions of the teachers of each pair of Faculties as reflected in their mean scores on different dimensions will not differ significantly.

To test this Hypothesis, the Faculties of the Gujarat University are paired as under :

1. Arts and Science (A & S)
2. Arts and Commerce (A & C)
3. Arts and Education (A & E)
4. Arts and Law (A & L)
5. Arts and Engineering (A & En)
6. Science and Commerce (S & C)
7. Science and Education (S & E)
8. Science and Law (S & L)
9. Science & Engineering (S & En)
10. Commerce & Education (C & E)
11. Commerce and Law (C & L)
12. Commerce and Engineering (C & En)
13. Education and Law (E & L)
14. Education and Engineering (E & En)
15. Law and Engineering (L & En)

The letters in the brackets indicate abbreviations.

The 't-tests for each of the paired Faculties will be used to test this Hypothesis. The results of the t-tests are shown in Table 4.5.

Table :4.5: Comparison of Componentwise Institutional Climate of the Faculties of Gujarat University in Terms of Their t-values and Significance

Comparison between	Disengagement	Hindrance	Esprit	Intimacy	Aloofness	Production Emphasis	Thrust	Consideration	Organizational Structure	Human relations	Communication	Decentralized Democratization	Climate Stanine Score
	1	2	3	4	5	6	7	8	9	10	11	12	13
A & S	1.60	0.41	2.65*	0.45	0.15	1.07	0.33	1.84	1.16	1.14	0.58	0.82	0.35
A & C	0.04	0.26	0.08	0.93	1.22	0.15	0.80	0.80	0.91	0.41	0.32	0.40	0.55
A & E	1.29	1.24	0.17	1.06	0.24	0.54	0.98	0.98	1.92	0.30	0.54	3.33**	1.01
A & L	2.16*	2.74**	1.15	1.73	2.42	1.20	2.32*	1.17	0.47	3.40**	0.28	1.17*	3.32**
A & En	1.61	1.79	0.21	0.32	1.18	1.45	1.06	1.06	0.57	1.14	0.78	2.12*	1.32
S & C	1.84	0.80	2.50*	1.36	1.25	1.00	0.43	2.88**	0.31	1.72	0.34	1.12	0.23
S & E	0.34	1.96	1.57	1.45	0.30	0.20	2.49*	2.49*	3.21**	1.11	0.10	1.34	1.04
S & L	1.57	4.13**	0.71	2.08*	2.08*	1.99	2.56*	2.56*	1.55	4.37**	1.57	0.76	4.26**
S & En	1.62	2.91**	0.69	0.17	0.99	1.15	0.05	1.91	0.26	1.59	1.91	0.94	1.77
C & E	1.51	1.27	0.20	0.20	0.58	0.49	1.57	0.49	2.97**	0.05	0.12	3.19**	0.89
C & L	2.49*	3.09	1.00	0.87	1.67	0.76	0.75	0.75	1.29	3.71**	1.08	2.20*	4.04**
C & En	1.87	2.10*	0.19	0.55	0.84	1.01	0.89	0.89	0.35	1.22	1.35	1.95	1.64
E & L	0.93	1.26	0.68	0.78	1.71	1.35	0.44	0.23	1.37	2.55*	0.88	0.98	2.28*
E & En	1.26*	1.11	0.09	1.24	0.86	1.07	0.61	0.61	1.46	0.85	1.12	1.18	0.93
L & En	0.57	0.53	0.34	1.07	0.08	1.83	1.13	0.37	1.09	0.70	0.79	1.23	0.36

Note : A = Arts Faculty ; S = Science Faculty ; C = Commerce Faculty ; E = Education Faculty ; L = Law Faculty ; En = Engineering Faculty

* Significant at .05 level : ** Significant at .01 level

Table 4.5 presents t-values for all the twelve dimensions with regard to pairs of Faculties where each Faculty is paired with the other Faculties and the significance of difference with regard to each dimension for each of the paired Faculties is represented through the t-value and its level of significance. These results also throw light on how differences in dimensionwise t values create differences in the climate typology of any two pairs of Faculties.

(1) Disengagement : It will be seen from the table that the t-value on the first dimension 'Disengagement' is significant in the case of the paired Faculties of Arts-Law, Commerce-Law and Education and Engineering at .05 percent level, and it is not significant in the case of any other paired Faculties. This means that difference between the means of Disengagement scores denoting alienation behaviour of teachers of Faculties of Arts-Law, Commerce-Law and Education-Law is a real difference rather than a chance affair. Even in the case of these Faculties, as it will be seen from Table 4.6 the mean scores of 52.74 for Arts are greater than the mean scores of 42.30 for Law; The Commerce Faculty has a higher score of 52.86 than 42.30 mean score for Law and the Education Faculty has a lower mean score of 37.00 than 46.91 for the Faculty of

Table :4.6: Mean Scores and S.D. of Different Faculties on the ICDQ Dimensions

Faculty	The ICDQ Dimensions											
	Dis. Eng.	Hind-rance	Esprit	Inti-macy	Aloof-ness	Produc. Empha.	Thru-st	Consi-dera.	Org. St-ructure	Human rela.	Communi-cation	Freedom Democra.
	1	2	3	4	5	6	7	8	9	10	11	12
Arts												
Mean	52.74	52.23	49.03	48.97	52.13	49.87	49.13	49.26	49.84	50.23	48.39	48.68
S.D.	13.56	11.05	6.28	8.59	13.74	7.77	6.75	7.56	10.17	10.28	12.31	6.08
Science												
Mean	48.06	53.19	53.75	54.50	41.00	51.91	54.60	49.97	52.50	49.06	44.91	50.53
S.D.	9.41	2.28	7.63	8.35	17.15	7.37	7.46	6.60	7.87	4.96	11.93	11.07
Commerce												
Mean	52.86	51.58	48.89	51.22	48.17	49.50	48.83	50.67	51.89	49.56	49.53	48.03
S.D.	11.76	9.01	8.33	10.82	12.77	11.77	9.41	6.80	8.27	6.62	10.26	7.09
Education												
Mean	37.00	47.36	49.46	51.91	50.91	51.36	53.55	51.82	43.00	49.27	49.73	55.09
S.D.	10.37	11.54	8.43	5.39	16.56	8.35	5.56	7.07	10.07	8.03	14.03	3.08
Law												
Mean	42.30	41.60	51.80	48.00	52.72	46.40	41.97	41.97	48.20	52.10	62.50	53.30
S.D.	12.26	9.22	7.30	9.55	8.17	8.49	5.52	8.77	6.86	6.45	7.65	5.01
Engineering												
Mean	46.91	38.00	50.00	47.00	40.50	58.00	50.00	55.00	54.00	56.00	58.50	58.00
S.D.	8.49	1.41	1.41	0.00	3.54	4.24	0.00	1.42	7.07	5.66	3.54	4.24

Engineering.

Disengagement is an unhealthy attribute. It tends to indicate teachers in these colleges wearing their heart on their sleeve - they are not deeply concerned, in positive or negative way, with what is going on in the college. They are the employees of the colleges and they just pass through 'the motions' mechanically as one would suspect. One also suspects that rapport between teachers and principal, rapport among teachers and perhaps rapport among teachers and students are absent. Perhaps, teachers function under tension, under a task-oriented situation. They all apparently appear to be doing their job but as one of the respondents observed to the investigator, ' the principal gets twice the salary we get and even he does not do one-fourth of the work we do. He wants that we go to the class and teach and we just go to the class and teach. He cannot tell us what we teach because he himself does not bother what he teaches.' Growing disengagement seems to be a danger spot in many colleges and principals,more than college managements, should find out ways and means to reduce its growing degree.

(2) Hindrance : The mean difference in the second dimension of the ICDQ, viz., 'Hindrance' as revealed by

the t-test values is significant at .01 percent level in the three paired Faculties of Arts-Law, Science-Law and Science-Engineering. The mean differences are significant at .05 percent level in the paired Faculties of Commerce and Engineering. It is not significant in any other pairs of Faculties. This would mean that there is real difference in the mean scores on 'Hindrance' dimension in the case of the above mentioned Faculties, and in the case of other Faculties the difference may be a chance phenomenon. This would mean that 'Hindrance' is one of the contributory factors in creating variations in institutional climate so far as Arts-Law, Science-Law and Science-Engineering infra-Faculty comparison goes. It may not be a causative factor of variation in other paired Faculties. The t-value is highest in the case of the Faculties of Science and Law. This means that the mean difference is more pronounced between these two Faculties than between other Faculties where the t-value is significant.

Where the t-value on Hindrance is statistically significant, it is indicative of teachers' feelings that they are unnecessarily hindred in their regular day-to-day work. The investigator was told that once a teacher's

relation with a principal is strained for one reason or the other, hindrance amounting to harassment starts. Even ~~women~~ lady teachers are not spared. The investigator was shocked to find that some principals can behave as psychological cases. Hindrance grows in volume steadily and in various forms when some teachers refuse to toe the line of the principal. Hindrance, she found, was also created when some principals tried to project their personality as one who is wedded to the ideology of 'work, work and work'

(3) Esprit : The mean difference on 'Esprit', the third and a very important dimension of the ICDQ, was found to be significant only between two groups of Faculties, viz., Arts and Science and Science-Commerce at .05 percent level. Thus, 'esprit' also seems to be one of the contributing influences in creating variations in climate between the Faculties of Arts and Science and Science and Commerce. It may not be a causative factor of variation in climate with regard to other Faculties. Looking to the mean score on 'Esprit' of the Faculties of Arts, Science and Commerce where t-values are significant, the teachers of the Faculty of Science (mean score 53.75) appear to be possessing 'Esprit' to a greater extent than those of the Faculties of Arts (with a mean of 49.03) and

Commerce (with a mean of 48.89).

The t-values of Esprit are insignificant in a number of paired Faculties. This can probably be explained by the fact that very few college leadership and managements realise that it is not mere task-accomplishment which should be their concern, but they should also be concerned whether they are able to provide enough facilities and opportunities to their staff members to satisfy their social needs satisfaction. Human beings-and teachers are human beings - need that they meet informally, talk, joke, relax and satisfy their social urge, to be 'together'. Teachers must be in a position to enjoy friendly relations and they must have opportunities to be with other teachers in informal situations. This necessitates facilities like Staff Common Room, recreation for staff and students, plannings of excursions and picnics, common tea club etc. Esprit is too valuable an asset that one can ill-afford to lose sight of.

(4) Intimacy : The t-test ratio of 2.08 on 'Intimacy', the fourth dimension of the ICDQ, is significant at .05 percent level in the case of the Faculties of Science-Law. It is not at all significant in any other paired Faculties (so far as the 'intimacy' dimension is concerned). Looking

to the higher mean score of the Faculty of Science on this dimension (i.e. 54.50) as against 48.00 for the Faculty of Law, it appears that 'Intimacy', a teacher behaviour dimension, is more pronounced among the teachers of the Faculty of Science than among the teachers of the Faculty of Law. This again underscores the fact that affiliated colleges of Gujarat University seem to be either oblivious or are negligent of their duties to plan for social needs satisfaction of their teachers. When asked, some principals say that when they cannot give regular salary to teachers how can they think of spending for their social needs satisfaction ?

The four dimensions - 'Disengagement', 'Hindrance', 'Esprit' and 'Intimacy' that have been considered so far are the factors of teachers' behaviour. The results of teachers' dimensions tend to show that (a) 'Disengagement' is one of the factors causing climate variations in Faculties of Arts, Law, Commerce, Education and Engineering ; (b) 'Hindrance' is similarly, a causative factor in this regard in the case of Faculties of Arts, Law, Science, Engineering and Commerce ; (c) 'Esprit' seems to be more significantly influencing climate variations in the Faculties of Arts, Science and Commerce ; and (d) the dimension 'Intimacy' is more pronounced in the Faculty

of Science and it is a factor that causes variation in climate between the Faculties of Science and Law.

Principals' Behaviour Dimensions

As shown in Chapter I, 'Aloofness', 'Production Emphasis', 'Thrust' and 'Consideration' are the dimensions indicative of principals' behaviour with regard to the teachers in their colleges. An attempt will now be made to examine how far they are responsible for causation of climate variations among the affiliated colleges of the Gujarat University.

(5) Aloofness : The t-ratio on 'Aloofness' is significant at .05 percent level in the case of the pairs of Faculties of Arts-Law and Science-Law. This means that 'Aloofness' is a factor that causes variation in climate in the case of the Faculties of Arts-Law and Science-Law. The mean score on this dimension of these three Faculties shows that 'Aloofness' is more conspicuous among the principals of Law Colleges than among those of the Arts and Science colleges.

'Aloofness' is a negative behaviour on the part of a college principal. It is gratifying to note that the means of difference on this dimension are significant.

between Faculties of Arts and Law and Science and Law. One can understand 'Aloofness' becoming significant in the Law Colleges, because these colleges are mostly evening colleges, they have part time teachers and part time students and often they sit in colleges of Arts. The last fact probably gives a possible reaction why the behaviour of Law College principals is characterised by an attitude of aloofness. When the contact becomes uncertain, and short-timed, the attitude of a principal naturally tends to be formal and impersonal and he goes by the book - or subjects taught. The investigator, during her visit to some law colleges, found that even the taking of students' presence is either nominal or merely on papers.

Arts Colleges tend to be large. In developing societies where technology is not adequately developed and job opportunities are far and few between, more students join Arts Colleges. Even in the yeaf 1974-75, according to the Annual Report of the University Grants Commission (1975) 44.6 percent of total university enrolment of 2.37 million were in Arts Faculty. Principals tend to be formal, impersonal and aloof in Arts Colleges, which are bigger in size. However, the Faculty of Arts has a lower mean score of 52.13 than the mean score of

the Faculty of Law which is on the higher scale. The degree of aloofness should not be so high. It is a sign of psychological sickness of the Faculty.

But the results present two surprises. Commerce Colleges, too, are large. The Faculty of Commerce on Aloofness has a mean of 48.17. This mean is also large, but even then there the t-value test results are not significant, meaning thereby that the mean of differences between Commerce Colleges and other pairs of colleges is not real. So, aloofness found in those pairs becomes a chance affair. Another surprise is that the t-value between Science and Law faculties is significant at .05 level. That is to say that the difference between principals' behaviour of aloofness in Science and Law Colleges is real. The mean score on aloofness of the Science Faculty is 41.00 as against 52.72 for the Faculty of Law. Science College principals perhaps become informal and impersonal in their dealings with their colleagues because they naturally are - they have got to be - task-oriented. But even then they have many opportunities and occasions to work in face-to-face situations. The t-value can best be interpreted that the difference of mean scores on 'Aloofness' is more favourable in the Faculty of Science than in the Faculty of Law.

(6) 'Production Emphasis' is another dimension of principals' behaviour with negative orientation. The results of the t-test do not reveal any significant relationship of any paired Faculties on this factor. Therefore, it may be contended that whatever variations that are noticeable in climate typology among the different Faculties of the Gujarat University, at least this factor is not a significantly contributory influence thereof. But this is not to suggest that Production Emphasis plays no part at all in creating climate variations. This is seen from the fact that the mean scores on this dimension in all faculties are high enough - they range from 46.40 in the Faculty of Law to 58.00 in the Faculty of Engineering. Only that these mean scores in different Faculties are not statistically significant. Principals of different colleges place emphasis on production. In this, no Faculty or College is an exception. But the differences do not reach the critical point when they can be deemed to be significant.

(7) Thrust : The mean differences as revealed by the t-values on the dimension of 'thrust' in the case of Faculties of Arts-Law, Science-Education and Science-Law are significant at .05 percent level. This shows that the

principals of the colleges of Arts-Law, Science-Education, and Science-Law, when paired together, manifest significant difference in their behaviour characterised by 'Thrust'. The mean score of 49.13 of Faculty of Arts is higher than 41.97 of the Faculty of Law ; that of the Faculty of Science (54.60) is higher than that of Faculty of Education (53.55) and that of Faculty of Science (54.60) higher than that of Faculty of Law (41.97). One can understand that the behaviour of principals of Science College is more characterised by Thrust because on them much of success in science teaching in colleges depends. The social expectations of science colleges are also considerably going up. Here principals motivate staff to work through the example of work which they personally set. The principals of Education Colleges are similarly task-oriented but not all principals themselves work hard and thereby motivate their teachers. In Law Colleges, principals are hardly found to be task oriented, and teaching-learning goes on as a machine, once moved, remains in motion. This would imply that 'Thrust' behaviour of principals is a determinant of variations in climate manifested by these three pairs of colleges (Faculties). The mean value of 'thrust' is the highest in the Faculty of Science among these three paired Faculties, implying thereby that this factor contributes to the creation of climate variations among the four Faculties to the greatest extent.

(8) Consideration : From the t-ratio on 'Consideration' the eighth dimension of the ICDQ, and the fourth dimension of the principals' behaviour, it appears that the Faculties of Commerce, Education and Law, each paired with Science reveal significant differences among them on this dimension. The t-ratios are significant at .01, .05 and .06 levels respectively in the Faculties of Science - Commerce, Science-Education, and Science-Law respectively. Thus, variation in 'Consideration' behaviour of principals causes variations in climate of these four faculties. Looking to their mean scores, the Faculty of Law has the lowest (41.97), the Faculty of Engineering the highest (55.00) and the Faculty of Education (51.82) high. In other Faculties, the principals are considerate, but in paired comparisons, their t-values are not significant and, therefore, whether differences in their mean scores are real or chance affairs cannot be said with an air of confidence.

Administrative Behaviour Dimensions

This group includes, as shown earlier, the dimensions of 'Organizational Structure', 'Communication', 'Human Relations' and 'Democratic Decentralization-Freedom'.

(9) Organizational Structure : Looking to the t-value on the dimension, 'Organizational Structure', the mean

differences are found to be significant at .01 percent level in the case of the Faculty pairs of Science-Education and Commerce-Education. This would mean that the difference in mean scores of only these Faculties (Science, 52.50 - Education 43.00), (Commerce 51.89) are really significant. In the case of the other paired Faculties, whatever differences in their mean scores on this dimension are found are only chance affairs. Therefore, the factor of 'Organizational Structure' constitutes one of the possible influences that cause climate variations between the Faculties of Science and Education and Commerce and Education. Among these three Faculties, the mean score on this dimension is the highest in the Faculty of Science.

It appears from these results that in the case of other Faculties, the t-values being not significant, the differences in their mean scores on 'Organizational Structure' may not be basically the cause of Climate variations. They have differences in their mean scores on this dimension, but their influence may be accidental.

(10) Human Relations : So far as the dimension of 'Human Relations' is concerned, the principals of the Law College (Faculty) are found to be possessing high human relations (mean 52.10) with their teachers than the principals in Arts, Science, Commerce and Education colleges (faculties).

The 't' - ratio on this dimension shows the significant difference between faculties of Arts (mean 50.23) and Law, Science (mean 49.06) and Law, Commerce (49.56) and Law and Education (49.27) and Law. The mean difference is significant at .01 level in Faculty pairs of Arts-Law, Science-Law and Commerce-Law and at .05 percent level between Education-Law. The mean score of this dimension is highest in the case of the Faculty of Law as compared with all but the Faculty of Engineering. This is understandable. The Law Colleges are part time colleges with mostly part time lecturers, without a good measure of human relationship. the principals of these colleges would find it difficult to function. What is surprising, and distressing too, is the low mean score of 49.27 in the case of Education Colleges. That would suggest that these colleges do not practise what they preach. One would have expected a higher mean score than 49.56 from Commerce Colleges. Their base actually is human relations. This would mean that affiliated colleges of the Gujarat University reveal deficiencies in certain vital psychological needs.

(11) Communication : This is one singular dimension of the ICDQ which does not pass the t-test critical points in any of the Faculty pairs. This means that between none of the

pairs of academic disciplines, the mean differences are significant. The academic disciplines - the Faculties have differences in their mean scores on this dimension ranging from 44.91 in the Faculty of Science to 62.50 in the Faculty of Law. Communication is an important aspect of administrative behaviour. Faculties like Education and Commerce should be distinguished by their free flow of communication. In fact, excepting the Faculties of Law (mean score 62.50) and Engineering (mean score 58.50), the mean scores in the case of other faculties are rather on a low scale. This constitutes administrative and institutional weakness of other Faculties.

(12) Democratic Decentralization-Freedom : The 't' ratio in the case of the dimension 'Democratic Decentralization - Freedom' shows that the administrative structure in Arts Faculty as against the Colleges of Education and Engineering Faculty, in the Commerce Faculty as against the Education Faculty and the Law Faculty is less free and less democratic. The 't' ratios of 3.33, 1.17, 2.12, 3.19, 2.20 respectively are significant at .01, .05, .05, .01 and .05 percent levels with df of 40, 39, 31, 45 and 44 respectively. Thus, the factor of 'democratic decentralization - freedom' seems to be operating in creating climate variations between the Faculties of Arts (mean 48.68) and Education (mean 55.09), Law (53.30) and Engineering (58.00), and of Commerce (48.03)

and Law (53.30). With regard to other pairs of Faculties, the mean differences are not significant. So, if they are causing climate variations, it is a chance affairs One would have expected higher mean scores on this dimension in the Faculties of Arts, Commerce and even Science. If higher education in India is to be expected to yield more viable results, the first essential condition is to increase degrees of decentralization and permit greater internal autonomy to staff members. Internal autonomy for teachers should be regarded as the soul of higher education in every country. Only then academic revolutions would be facilitated and become a fact of life of colleges and universities.

Apart from variation in dimensions of the ICDQ among the different Faculties as revealed by the above discussion, Table 4.7 gives a better bird's eye view of the same. This labelling has been done on the basis of Stanine conversion of dimension mean scores where 'Highest' denote Stanines 9 and 8, 'High' denote Stanines 7 and 6, 'low' denote Stanines, 4 and 3 and 'Lowest' Stanines 2 and 1.

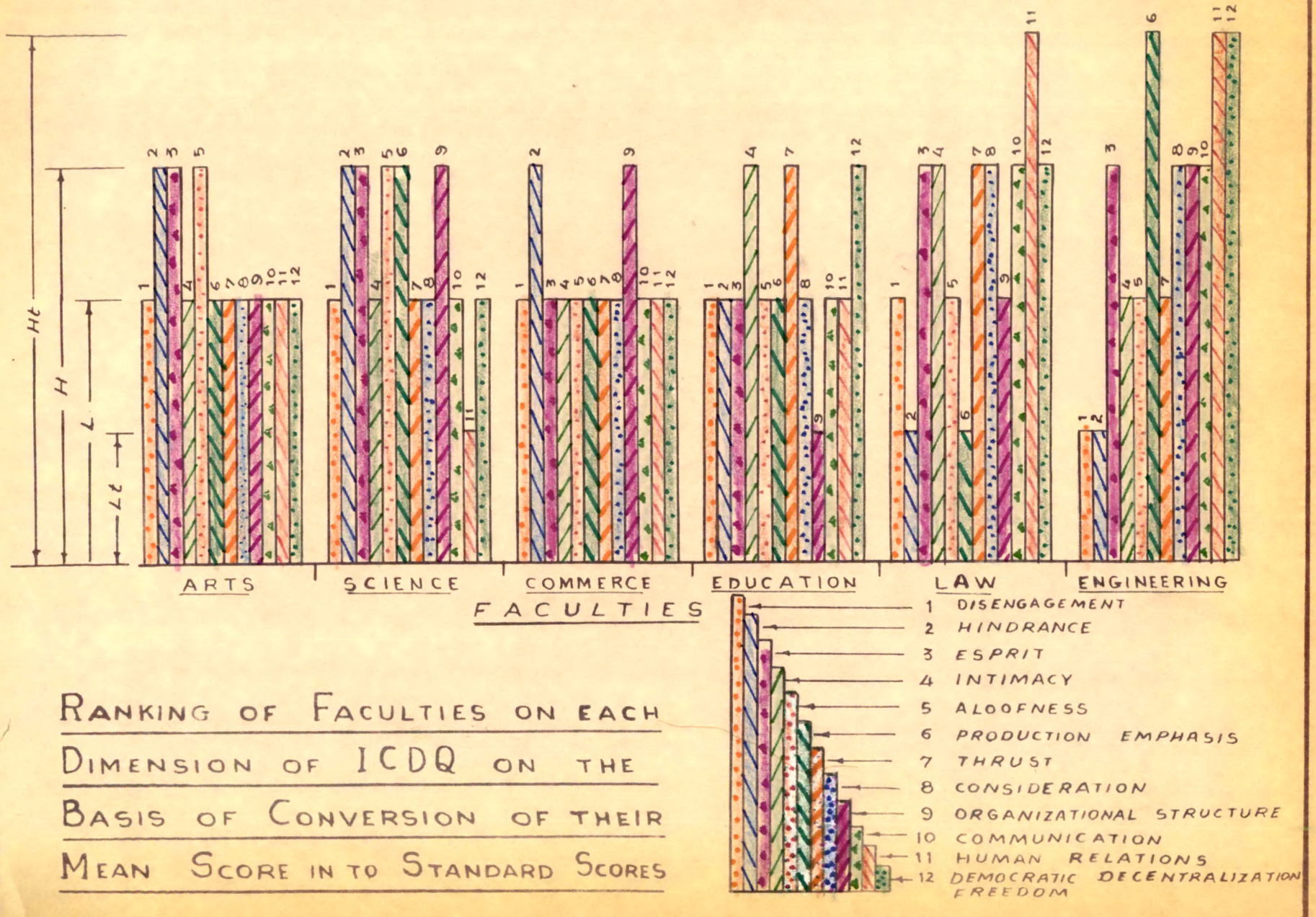
Thus, in case of mean perceptions of teachers of different Faculties paired together on certain dimensions of the ICDQ, the differences are found to be significant and on others, it was found to be insignificant. Therefore, this null hypothesis is not sustained.

Table :4.7: Ranking of Faculties on Each Dimension of the ICDQ on the Basis of Conversion of their Mean Scores into Standard Score

Dimensions	Arts	Science	Commerce	Education	Law	Engg.
Disengagement	L	L	L	L	L	Lowest
Hindrance	H	H	H	L	Lowest	Lowest
Esprit	H	H	L	L	H	H
Intimacy	L	L	L	H	H	L
Aloofness	H	H	L	H	L	L
Prod.Emphasis	L	H	L	L	Lowest	Highest
Thrust	L	L	L	H	H	L
Consideration	L	L	L	L	H	H
Organizational Structure	L	H	H	Lowest	L	H
Communication	L	L	L	L	H	H
Human Relation	L	Lowest	L	L	Highest	Highest
Democratization	L	L	L	H	H	Highest

4.5 Testing Significance of Difference between College Principals' and College Teachers' Mean Perceptions on ICDQ Dimensions

It is an interesting point how college teachers and college principals perceive different dimensions of the



RANKING OF FACULTIES ON EACH DIMENSION OF ICDQ ON THE BASIS OF CONVERSION OF THEIR MEAN SCORE IN TO STANDARD SCORES

FIG. 9

ICDQ in the present study.

Sargent (1967) found that the t-values on 7 out of the total 8 dimensions of the Halpin-Croft's OCDQ, were significant and teachers' mean scores on 'Disengagement', 'Hindrance' and 'Aloofness' were higher and principals' mean scores on dimensions 'Esprit', 'Intimacy', 'Production Emphasis', 'Thrust', 'Consideration', and even 'Openness' were higher than the corresponding mean scores of teachers.

A Korean research by Kimnyo-Son (1971) on the study of the relation existing between the development value orientation of school personnel and organizational climate of schools was reported in the 'Review of Educational Studies in Korea' (Vol.I, 1972). This study showed that firstly, principals of schools possessing Open Climate had relatively higher development-oriented values and principals of schools possessing 'Closed' Climate had non-development values and secondly that there were significant mean differences in the perceptions of both, the principals of both these categories of schools and those of their teachers.

Recently Kirit Gandhi (1977) examined the mean perceptions of teachers and principals on the 12 dimensions of his OCDQ (Baroda Form I). He found real differences,

as exemplified to test values, between the mean perceptions of teachers and those of principals on each of the dimensions.

Thus, it seems that teachers and principals have different mental orientations, values and angles to view the dimensions that go to build up institutional climate.

Naturally, the present investigator, too, was interested in examining whether there are true differences or not between the mean college principal perceptions and mean college teacher perceptions of institutional climate dimensions as measured by the ICDQ (Baroda Form II).

The Hypothesis is of null variety. It is worded as under :

> 'There are no real differences between mean perceptions of college principals and college teachers of institutional climate dimensions, as measured by the ICDQ.' (The Hypothesis IV).

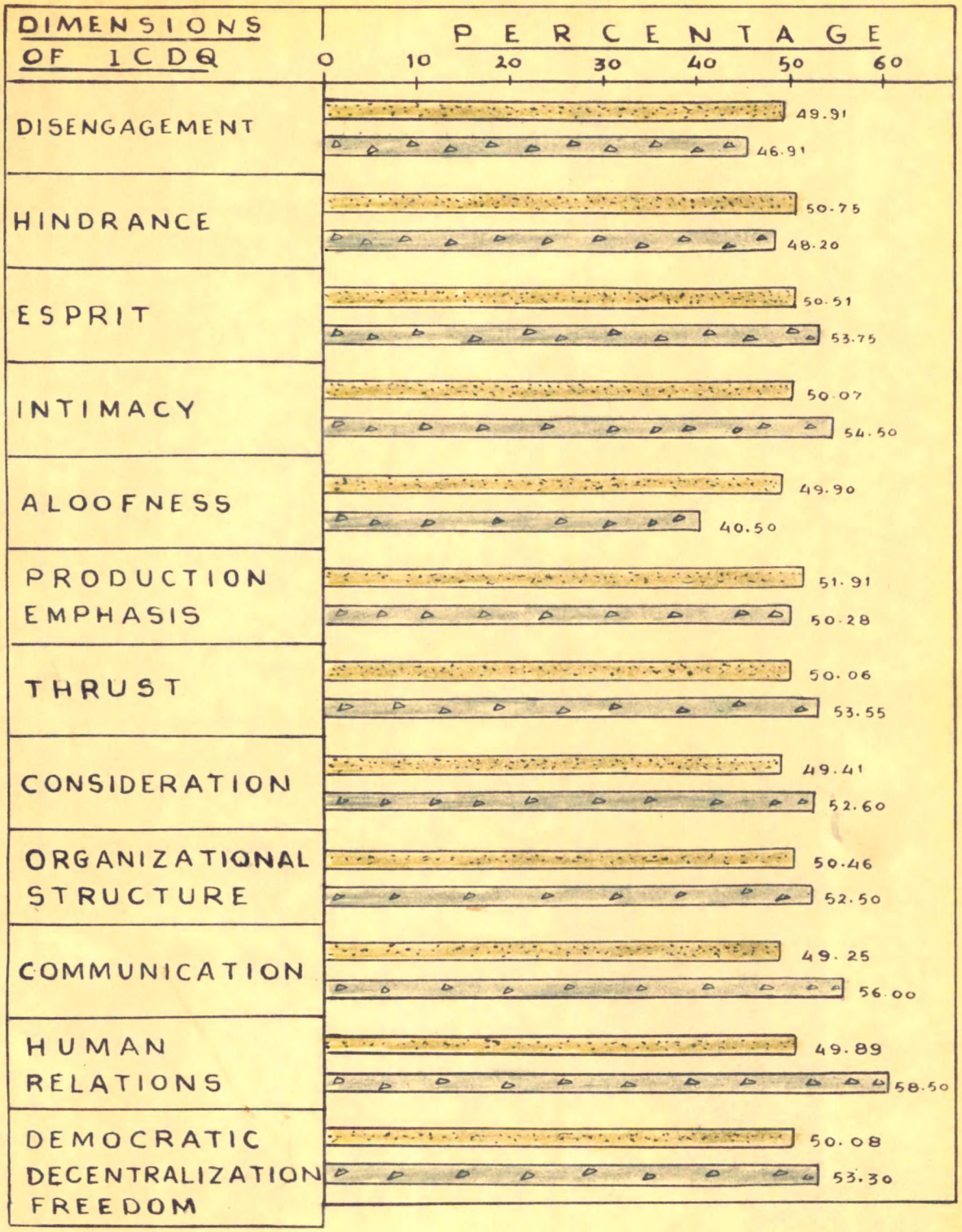
t-test is used to test this hypothesis. The results are tabulated in Table 4.8 on the next page.

The results show that the t-values are significant in the case of all dimensions excepting two. These two dimensions are 'Production Emphasis' and 'Organizational Structure'. It may be recalled here that even in Sargent (1967) study, the mean perceptions of teachers and principals were not significant. This study shows that even in the case of

Table :4.8: Results of Tests of No Mean Differences in Scores on ICDQ Dimensions for College Principals and Teachers

Sr. No.	ICDQ Dimensions	Teachers		Principals		't' Value	Significance
		Mean	S.D.	Mean	S.D.		
1.	Disengagement	49.91	11.95	46.91	10.37	1.67	.01
2.	Hindrance	50.75	9.88	48.20	6.86	1.96	.05
3.	Esprit	50.51	7.71	53.75	7.63	2.49	.05
4.	Intimacy	50.07	9.12	54.50	9.55	2.61	.01
5.	Aloofness	49.90	14.47	40.50	3.54	2.48	.05
6.	Production Emphasis	51.91	9.14	50.28	7.34	1.25	NS
7.	Thrust	50.06	7.71	53.55	5.56	3.49	.01
8.	Consideration	49.41	7.35	52.60	8.87	1.99	.05
9.	Organizational Structure	50.46	9.00	52.50	7.87	1.46	NS
10.	Communication	49.25	12.10	56.00	5.66	6.14	.01
11.	Human Relations	49.89	7.43	58.50	3.54	2.30	.05
12.	Democratic-Decentralization-Freedom	50.08	7.99	53.30	5.01	3.58	.01

MEAN SCORES OF TEACHERS AND PRINCIPALS ON EACH DIMENSION OF ICDQ



TEACHERS' MEAN SCORE

PRINCIPALS' " "

FIG. 7

organizational structure, the mean differences between the perceptions of teachers and principals, at least in this study, are statistically not significant. That means that teachers and principals seem to agree in their perceptions about two dimensions - 'Production Emphasis' and 'Organizational Structure.' But in the case of all other 10 dimensions, teachers' and principals' perceptions are significantly different. Principals, on account of their ego involvement, tend to see many aspects of their college functioning in rosy colours. 'Disengagement' and 'Hindrance' are the two negative behaviours on the part of teachers. They are caused by the principals' behaviour. It is but natural that teachers would perceive such behaviours in higher terms (higher mean scores) than principals, whereas principals would perceive dimensions like 'Esprit', 'Intimacy' in higher terms (i.e. higher mean scores), their own negative behaviours, 'Aloofness', 'Production Emphasis', in lower terms (i.e. lower mean scores), their behaviours of 'Thrust' and 'Consideration' in higher terms (i.e. higher mean scores). Principals, being also administrators, are likely to perceive institutional behaviours like 'Organizational Structure', 'Communication', 'Human Relations' and Democratic-Decentralization-Freedom' in higher terms

having higher mean scores than the corresponding mean scores of teachers.

4.6 Institutional Climate of Colleges and Some influencing Variables

In earlier sections, it was seen that institutional climates of affiliated colleges of Gujarat University vary according to their academic discipline or the Faculty of the University to which they belong. In this section it is intended to examine the possible relationship of four independent variables, viz., size, city-town location, zonal or regional distribution and socio-economic conditions of college teachers. The assumption is that though institutional climate is basically built up by the interaction patterns of teachers', principals' and administrative behaviour, other factors like size, urban-semi-urban location*, regional divisions and socio-economic status of their teachers also play their part therein. The Hypothesis V is formulated in this perspective. It runs as follows :

> 'Institutional Climate of affiliated colleges of the Gujarat University is expected to vary according to their size, urban-town location, zonal-wise distribution and the socio-economic status of their teachers.' (The Hypothesis V)

---

* As no colleges of the Gujarat University included in the sample are situated in villages.

The Hypothesis will be tested variable-wise.

(a) Size : The size of the colleges was divided in two categories, small sized colleges and large sized colleges. Those colleges where the enrolment of students was less than 400 were taken as 'small sized colleges' and those having more than 400 student population were taken as 'large sized colleges'. The table given below gives the classification of the colleges size-wise across climate-wise.

Table 4.9: Percentage Distribution of Three Climate Type Colleges according to Size

Size	Climate			Total
	Open	Intermediate	Closed	
Large	23.8 (15)	47.6 (30)	28.6 (18)	100.00 (63)
Small	32.2 (19)	49.2 (29)	18.6 (11)	100.00 (59)
Total	27.87 (34)	48.36 (59)	23.77 (29)	100.00 (122)

Note : Figures in parentheses are the number of colleges

The above table provides the relevant data for examining the hypothesis. Looking to the distribution of the colleges in the large-sized colleges, it will be seen that a greater proportion (47.6 percent) possesses Intermediate

Climate, 23.8 percent of them have Open Climate and 28.6 percent of them fall in the Closed Climate type colleges. Here, also, there is climate variation.

A greater percentage distribution of the colleges of the small size also is found in the category of Intermediate Climate (49.2 percent). In Closed Climate type fall 18.6 percent of small colleges whereas 32.2 percent of the small colleges possess Open Climate. Thus, here, too, there is climate variation.

Taking into consideration the percentages of the colleges possessing the Open Climate in both the large and the small sized colleges, the percentage distribution of the small colleges in Open Climate is greater (32.2 percent) than that of the large sized colleges (23.8 percent), whereas the percentage distribution of large colleges in closed climate is greater (28.6) than that in small sized colleges. Here also there is variation.

The percentage distribution of the large and small colleges in the Intermediate climate shows a variation only of 1.6 percent, being 47.6 percent large colleges and 49.2 percent small colleges.

It may be concluded that the greater number of colleges of both the large and small size possess Intermediate

Climate, but in comparison to the Open and Closed climate type colleges, more percentages of large colleges have closed climate as against more percentages of small colleges have Open climate. This might apparently indicate the variation in climate of the college according to size. But it should be found out whether this variation is statistically significant or not. The investigator, therefore, subjected the results to chi-square tests. It was found that X^2 value of 4.48 was found statistically insignificant at .20 level. Therefore, this part of the Hypothesis does not stand critical scrutiny.

The 't'-test was another statistical technique employed to test the hypothesised relationship between the size of the colleges and their institutional climate in the global sense and in the context of its twelve dimensions. The t-value was found to be 1.94 which was not significant, implying thereby that there is no real difference in mean perceptions of the teachers of the small and large sized colleges about their institutional climate.

She also applied the chi-square test. The analysis yielded a chi-square value of .0059 which was not significant at all.

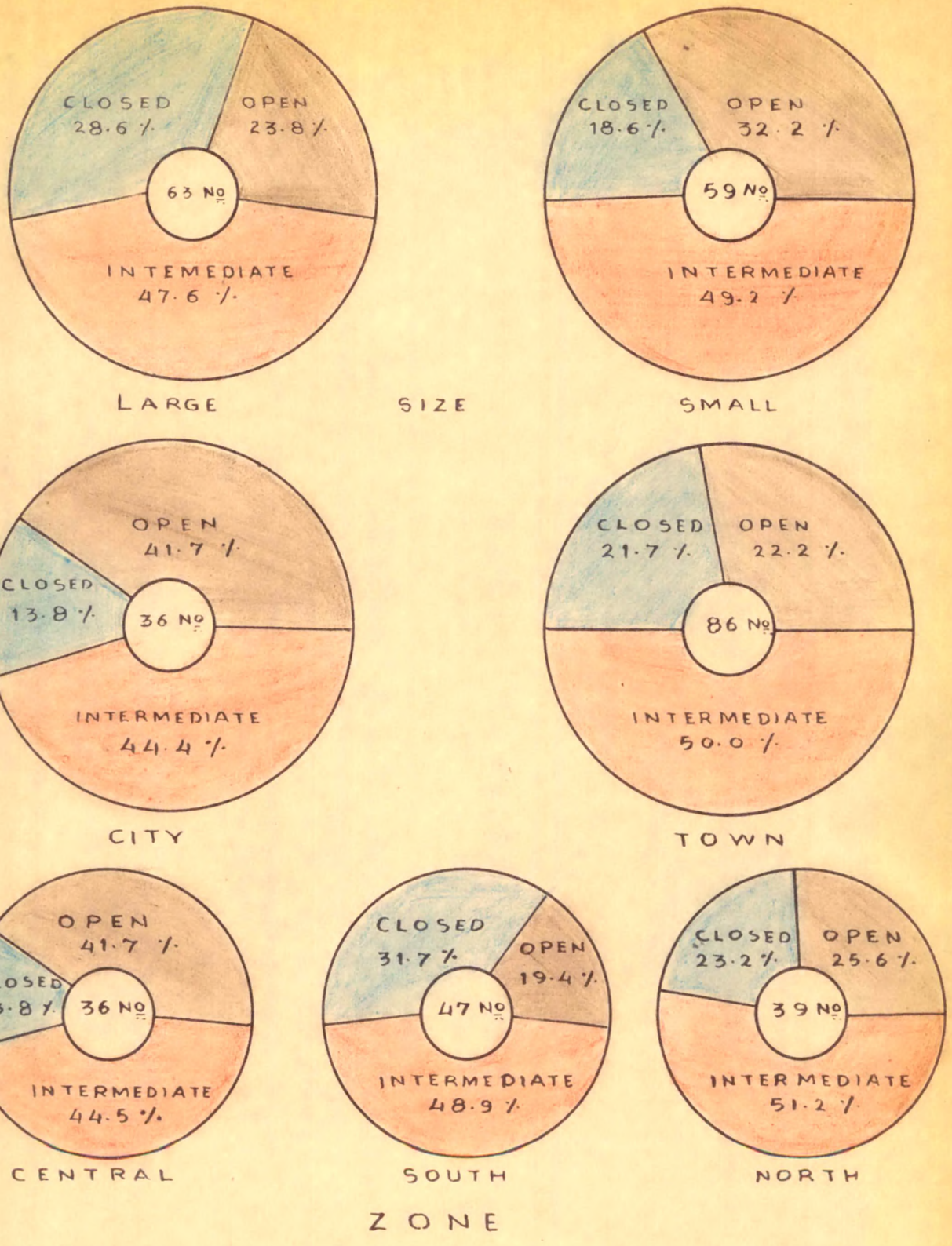
A further probe was made whether teachers' perceptions of small and large sized colleges differ significantly on any

or all of the dimensions of climate as measured by the ICDQ. The table given below presents the results of the t-test applied to test the significance of the mean differences of the two groups of the respondents on the twelve dimensions.

Table :4.10: Results of t-tests of Mean Differences of Scores on ICDQ Dimensions according to the Size of the Colleges

ICDQ Dimensions	Pairs : Large-Small
1. Disengagement	2.10 *
2. Hindrance	1.72
3. Esprit	0.87
4. Intimacy	0.10
5. Aloofness	0.84
6. Production Emphasis	0.11
7. Thrust	1.69
8. Consideration	0.50
9. Organizational Structure	0.70
10. Communication	0.88
11. Human Relations	0.14
12. Democratic-Decentralization-Freedom	2.04 *
13. Climate	1.94

The results show that only on two dimensions of the ICDQ, viz., 'Disengagement' and 'Democratic Decentralization-Freedom' the mean difference is significant at .05 level. With



PERCENTAGE DISTRIBUTION OF THREE CLIMATE TYPES ON VARIABLES OF CLIMATE

FIG. 8

regard to other dimensions, the mean differences are only a chance affair. This would mean that the Hypothesis as far as it relates to relationship between college size and their climate is not tenable.

Considerable research evidence is available on the potential relationship between size of educational institutions and institutional climate. The results are not consistent.

Studies by Cook (1966), Neela Shelat (1975) and others, found small sized schools being relatively more Open than relatively more Closed. Flanders (1967), Carver and Serquiovani (1969), Kirit Gandhi (1977) and others have found large sized schools tending towards closedness of climate. However, studies by Flagg (1969), Marcum (1969), Winter (1970), Guy (1970), Sharma (1973), Bhikhu Patel (1973), Kothai Pillai, (1973), Darji (1975) and others have found no significant difference between the size of an educational institution and its climate typology. The findings of these studies are in conformity with the finding of the present study of no significant relationship between size of a college and its climate category.

One may conclude this sub-section by quoting from Sharma's (1973:316) doctoral study which underscores the

conflicting nature of findings of research on this aspect of climate studies.

> 'It has been reported by quite a few researchers that smaller the size of the faculty, the more 'Open' the school climate, whereas there are a few others who reported that 'Open Climate' schools are found to have larger staff. At the same time, a few other studies have revealed that there is no significant relationship between the size of the faculty and the climate of the school.'

(b) City - Town Location

This variable is taken for examination because generally colleges situated in cities are exposed to varied and many influences, some of them tend to broaden the outlook of administrators and teachers and, therefore, there is possibility of their possessing open mind contributing to the openness of climate. This may not happen in towns which have, particularly in a country like India, more rural characteristics than the urban ones. Rural and semi-urban communities have traditional, narrow, conservative and often calculating outlook on problems of life in all sectors including education. The investigator, therefore, thought it fruitful to test this part of the Hypothesis, namely, that institutional climate of colleges varies according to their city-town location. The Hypothesis is further tested in terms of its twelve dimensions.

To facilitate the testing of this part of the Hypothesis, the following table is framed :

Table :4.11: Percentage Distribution of Three Climate Type Colleges according to City-Town Situation

City-Town	Climate			Total
	Open	Intermediate	Closed	
City	41.7 (15)	44.4 (16)	13.8 (5)	100.00 (36)
Town	22.2 (19)	50.0 (43)	27.8 (24)	100.00 (86)
Total	27.8 (34)	48.4 (59)	23.8 (29)	100.00 (122)

df = 2 X^2 = 4.48 Significant at .20 level

Note : Figures in parentheses are the number of colleges

It can be seen from the above figures that a greater proportion (44.4 percent) of the colleges located in the cities falls in the Intermediate Climate. But there is marked variation of proportion of the colleges in the Closed Climate type on the one hand (13.8 percent) and Intermediate and Open Climate type colleges on the other hand (44.4 percent and 41.7 percent respectively). Thus, in city areas there are variations within.

As to the percentages of the colleges in towns, 50 percent of them fall in the Intermediate Climate types. The

other 50 percent colleges are divided between the Open Climate type (22.2 percent) and Closed climate type (27.8 percent).

Considering the percentages of the colleges possessing Open Climate in both town and city areas, the percentages of the colleges falling in the Open climate in town areas were less (22.9 percent) than those in the city areas (41.7 percent) whereas the percentages of the colleges falling in Closed Climate in town areas are greater than those in the city areas.

The range of proportion of the Intermediate Climate type of colleges in both the city and town areas is from 50 percent in town areas to 44.4 percent in city areas. The overall variation is to the tune of 5.6 percent. This also apparently appears to sustain the second part of the hypothesis. But the question whether the variations revealed in climate types are really significant or whether they are due to merely chance affairs is to be statistically determined. The chi-square test was applied to the data given in Table 4.11. The result yielded a value of 4.48 which was found significant only at .20 level.

The investigator wanted to probe the variations further at the dimensions' level. To test this, the t-test technique was used. The results are presented below in Table 4.12.

Table :4.12: Results of t-tests of Significant Relationship on City-Town Location of Colleges and their Institutional Climate

ICDQ Dimensions	Variable City-Town
1. Disengagement	0.50
2. Hindrance	0.41
3. Esprit	2.15 *
4. Intimacy	0.05
5. Aloofness	0.54
6. Production Emphasis	0.86
7. Thrust	0.43
8. Consideration	0.65
9. Organizational Structure	0.63
10. Communication	0.06
11. Human Relations	0.01
12. Democratic Decentralization - Freedom	0.28

The results show that when the analysis is taken at the level of the 12 dimensions of the ICDQ, excepting one dimension (viz. Esprit), on other dimensions the differences between city-town variables as revealed by their t-values on eleven dimensions of the institutional climate were not significant, implying thereby that no real differences exist in mean perceptions of teachers of city colleges and of town colleges about the individual dimensions of their

institutional climate. Therefore, the second part of the Hypothesis that assumes a potential relationship between the city-town location of the affiliated colleges of the Gujarat University and their institutional climate is not supported by the results of both the chi-square test and the t-tests. Thus, the Hypothesis fails in regard to this variable also.

Most of the Indian researchers (Mehra, 1968; Kumar, 1972; Sharma, Buch, Ray, 1972; Patel, 1973; Kothai Pillai, 1973; Darji, 1973; Franklin, 1975; Chokshi, 1976; Tikmani, 1976; Gupta, 1977) who investigated organizational climate at school or college stage did not study the possible relationship of urban-rural location of educational institutions and institutional climate. Research evidence as embodied in the studies by Gentry and Kenney (1967), Richens (1967), Halpin (1969) and Sharma (1973) is conflicting, and one cannot deduce from their findings any definite conclusion or identify any clear trend indicative of relationship or lack of relationship between urban-rural location and climate. Shelat (1975) also reached a conclusion that no clear trend appeared to emerge from the analysed data which would indicate any close and significant relationship between urban-rural orientation and climate. As against that the finding of the present

study is categorical - there does exist some significant relationship between urban-rural location of the colleges and climate.

Another look at the Table 4.12 shows that the city-town location of colleges does not bear any significant relationship on eleven out of the total twelve dimensions of the ICDQ. The one dimension on which there is true differences in the mean perceptions of the teachers of city and town colleges is 'esprit'. The t-value of 2.15 is significant at .01 level.

Thus, the second part of the hypothesis is partially sustained is evident from the above discussion.

(c) Region-wise Distribution

The third part of the Hypothesis assumes that institutional climate of colleges would vary with the zones or regions in which they are situated. Affiliated colleges of the Gujarat University are distributed over three zones, viz., City (Ahmedabad) Zone, South Zone and North Zone. The underlying idea in formulating this part of the Hypothesis is that regions which are more socially, economically and educationally advanced will have their colleges with different climate orientation than these

colleges situated in less advanced or backward regions.

The following table gives percent-wise distribution of colleges in different zones across their three climate type-wise classification.

Table :4.13: Percentage Distribution of Three Climate Type Colleges in the Central, South and North Zones

Regions	Climate			Total
	Open	Intermediate	Closed	
Central	41.7 (15)	44.5 (16)	13.8 (5)	100.00 (36)
South	19.4 (9)	48.9 (23)	31.7 (15)	100.00 (47)
North	25.6 (10)	51.2 (20)	23.2 (9)	100.00 (39)

df = 4 Chi-square value = 22.61 Not significant

Note : Figures in parentheses are the number of colleges.

The table shows that of the total 122 sampled colleges, 36 colleges are from the Central zone, 47 colleges from the South zone and 39 colleges from the North zone.

Considering the distribution of the 36 colleges of the Central zone, 15 colleges or 41.7 percent of them possess open climate, 16 or 44.5 percent possess

Intermediate Climate and 5 or 13.8 percent of them possess Closed Climate. Thus, the figures show a clear variation among the three types of climate the colleges located in Central zones manifest.

This variation in the category of institutional climate possessed by colleges is also evident in the South zone. Looking at the distribution of the 47 colleges in this zone, it is seen that there is a great variation in the three climate types in as much as 9 or 19.4 percent of them possess Open Climate, 23 or 48.9 percent of them possess Intermediate Climate and 15 or 31.7 percent of them fall in the category of Closed Climate. The percentage of colleges in the closed climate is noteworthy. A greater proportion of colleges of the South zone possess Intermediate Climate. This proves the fact of the variation among the climate typology of the colleges in the South zone.

The same trend of variation is manifested in the climate typology of the colleges of the North zone. As to the percentage distribution of the colleges in the North zone, it can be seen that 20 or 51.2 percent of the total 39 colleges in the North zone possess Intermediate Climate which has the highest proportion in this zone, 9 or 23.2 percent of the colleges fall in the Closed Climate category

whereas 10 or 25.6 percent of the colleges have Open Climate. This shows that on the whole, a greater number of colleges in the North zone possess Intermediate Climate. The percentages of Closed and Open Climate colleges do not show much difference between them.

Considering the proportion of colleges possessing the Open Climate in all the three zones, viz., the Central, South and North, the highest number (15 or 41.7 percent) is seen in the Central zone and the smallest number (9 or 19.4 percent) in the South zone. Thus, even the distribution of Open Climate colleges over the three zones shows variation. The same trend of variation is to be noticed in regard to Intermediate Climate and Closed Climate colleges. The Intermediate Climate colleges are most (23 or 48.9 percent) in South zone and the least in the Central zone, though the difference is only of 7. With regard to the Closed Climate category, the same trend of variation is noticeable. The range is 15 (or 31.7 percent) in South zone to 5 (or 13.8 percent) in the Central zone.

It may be concluded that the greater number of colleges of all the three zones of the Gujarat University area possess the Intermediate Climate. The percentage of the colleges possessing Closed Climate is markedly low when viewed against the result of a series of climate studies in

Gujarat, Rajasthan and Tamil Nadu States. These observed differences may be apparent or real. This has to be statistically ascertained. The investigator, therefore, computed chi-square correlation value for the tabulated data. The results yield a chi-square value of 22.61 which is found not at all significant.

The zonal-wise climate variations can further be probed by computing t-values of Central-South zone, Central-North zone and South-North zone located colleges. This is done and the relevant t-values with regard to each of the 12 dimensions of the ICDQ are given below in Table 4.14.

Table :4.14: t-test Result on the Global Climate with Regard to Twelve Dimensions of the ICDQ according to the Zonal Distribution of the Colleges

Dimensions	Comparison between		
	Central and South	Central and North	South and North
	t - values		
1. Disengagement	.86	.04	.91
2. Hindrance	.66	.05	.75
3. Esprit	2.23 *	1.57	.85
4. Intimacy	.50	.39	.95
5. Aloofness	1.08	.13	1.38
6. Production Emphasis	1.12	.43	.75
7. Thrust	.21	.54	.36
8. Consideration	.57	.55	.08
9. Organizational Structure	.23	.91	.75
10. Communication	.63	.51	1.36
11. Human Relations	.76	.61	1.55
12. Democratic Decentralization-Freedom	.51	.01	.59

The results of the t-test show that the mean difference is significant at .05 level only in the case of one dimension, viz., 'Esprit', and that too, in the case of the paired Central-South zone colleges. In the case of other dimensions and other pairs of zones, the mean differences are not significant, and, therefore, the differences among the dimensions shown by the analysis may be due to largely to chance.

Findings of some previous research on relationship between location of educational institutions and climate typology are available. Sharma (1973), Franklin (1975), Chokshi (1976) and Tikmani (1976) did not inquire into this relationship. Patel (1973) found variations among climate typology among the Valsad, Surat and Panchmahals districts but he did not test the significance of these differences. Kothai Pillai (1973) also found similar climate type variations among the secondary schools of the Madurai education districts, Madurai Revenue district and Tamil Nadu, but she, too, did not test the significance of the variations revealed in districtwise school climate typology. Samrong Pengnu (1976) tested the significance of differences of climate typology among the different zones of the Bangkok area by using the t-tests and found that geographical location is not a factor responsible for causation of

variations among the climate typology. Recently, Kirit Gandhi (1977) studied this issue with a better representative sample of secondary schools from the West, North, Central and South Gujarat. He used the chi-square test to test the level of significance. But he also reached the conclusion that regional location of schools does not appear to be a causative factor of variations among climate types of secondary schools. Thus, the earlier research findings are supportive of the findings of the present research that no real and significant relationship seems to exist among the regional location of colleges and their climate typology excepting one difference that when such relationship is further probed dimension-wise, only one dimension of climate, viz. 'Esprit' seems to be correlated significantly with the global concept of climate.

(d) Socio-Economic Status

The investigator also thought it desirable to examine whether the socio-economic status of the teachers - the SES influences their perceptions of institutional climate. This issue has been examined at school level but, to the best knowledge of this investigator, the issue has remained nearly unexplored at the college level, particularly in India.

In order to study the possible relationship between the SES of the respondents and their perceptions of climate typology, she used the SES Scale largely on the lines of

Yogini Pathak (1976). How the SES of respondents is computed is shown in the note presented in Appendix V. Here, it would suffice to mention that

SES_1 denotes low class

SES_2 denotes low-middle class

SES_3 denotes middle class

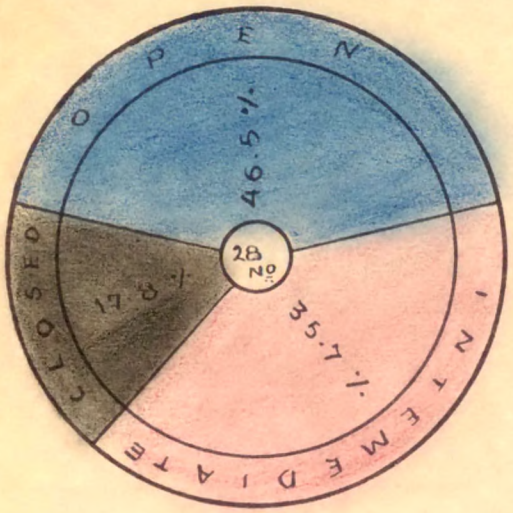
SES_4 denotes high middle class

SES_5 denotes high class

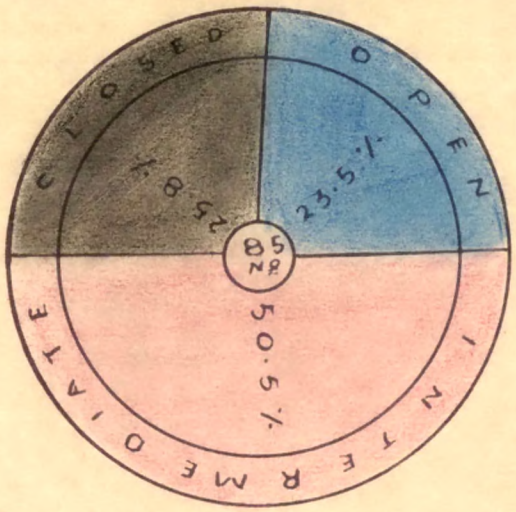
The Table 4.15 gives below the distribution of the respondents per their SES group across the three climate types.

Table :4.15: Distribution of the Teachers, with Different SES Categories in Open, Intermediate and Closed Climate

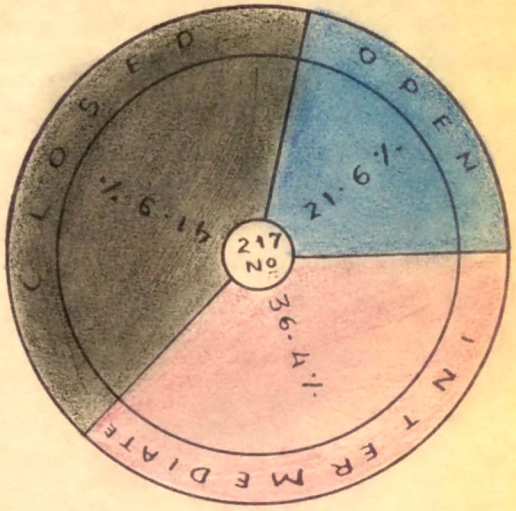
SES Category	No. of Teachers in			Total
	Open Climate	Interme-diate Climate	Closed Climate	
SES_1	13 (46.5)	10 (35.7)	5 (17.8)	28 (100.0)
SES_2	20 (23.5)	43 (50.6)	22 (25.9)	85 (100.0)
SES_3	47 (21.6)	79 (36.4)	91 (42.0)	217 (100.0)
SES_4	15 (19.4)	50 (65.0)	12 (15.6)	77 (100.0)
SES_5	10 (37.0)	7 (26.0)	10 (37.0)	27 (100.0)
Total	105(24.2)	189(43.5)	140(32.3)	434(100.0)



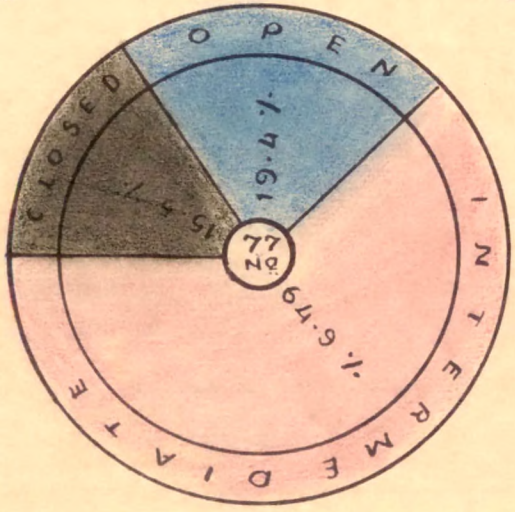
SES 1



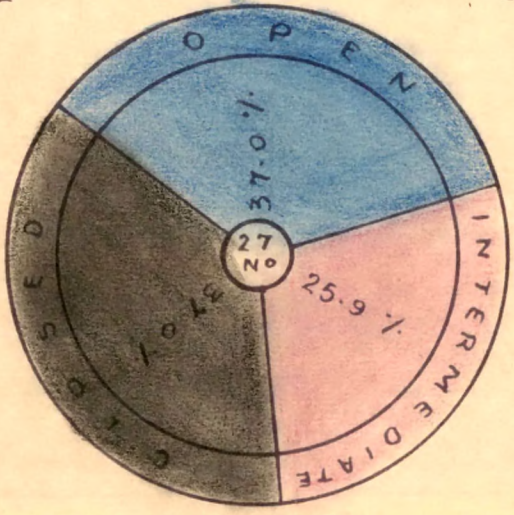
SES 2



SES 3



SES 4



SES 5

FIG 9

TEACHERS WITH DIFFERENT SES CATEGORIES IN OPEN, INTERMEDIATE AND CLOSED CLIMATE

The results yield a chi-square value of 1.73 which is not significant. This would suggest that the differences among the socio-economic status of the respondents do not constitute a factor that causes variations among their perceptions about the climate category to which their college belongs.

Several researchers investigated this relationship in the past. Feldvebel (1964), Nicholas (1965), Gentry and Kenney (1967), Pumphray (1969), and others studied whether SES factors were related to climate categories. Feldvebel studied the socio-economic status of the school community and its bearing on school climate. He reached the conclusion that both are unrelated variables. The same was the finding of Nicholas. He found school climate to be too powerful to be influenced by the SES variable. But Gentry and Kenney's study led to a different conclusion- high SES schools are relatively more open in climate and low SES schools are relatively less open in climate.

The Indian researchers who worked in the area of organizational climate of schools like Mehra (1968), Patel (1973), Pillai (1973), Sharma (1973), Darji (1975), Franklin (1975), Pandya (1975), Chokshi (1976), Tikmani (1976) and Gupta have preferred to leave the relationship of this

variable on climate unexplored. Neela Shelat (1975:153) concluded her review of research on personal variables of teachers by observing 'the non-reciprocal input variables of size, location and the SES status of teachers do not show conclusively whether any real and significant relationship exists between them and the school climate.' Gandhi (1977) recently inquired into the significance of relationship between socio-economic conditions of teachers and their perceptions of the climate typology of their schools and found the chi-square value to be not significant indicating thereby that no real significant relation exists between the two variables. Thus, Gandhi's finding is in line with the finding of the present study. Therefore, this aspect of the Hypothesis which envisages the potential relationship between the SES and the climate typology does not stand.

4.7 Morale Categories of the Colleges Affiliated to the Gujarat University

The Hypothesis VI in the study pertains to the morale of the teachers in the colleges affiliated to Gujarat University. It is hypothesized that the morale of teachers would tend more to be average rather than high or low. The investigator was led to formulate the Hypothesis by her own experience as a lecturer, professor and principal of different colleges over a period of time extending over last twelve years,

and also on the basis of the discussion she had with a number of college teachers in different disciplines as well as on the basis of what she saw and heard during the personal visits and the meetings she had with the teachers about the state of affairs in the affiliated colleges.

The Hypothesis is stated as under :

'The morale of the teachers in the affiliated colleges in the Gujarat University would be 'average' rather than 'high' or 'low'.' (The Hypothesis VI).

The investigator administered the tool CTMO (Baroda Form I) developed by her to 434 teachers of the sampled 122 colleges affiliated to the Gujarat University.

The CTMO is a 77 item instrument with the items distributed under 8 factors as shown in the following table.

Table :4.16: Distribution of Items in the CTMO

Factor No.	Name of Factors	No.of Items	Maximum Scores
1	Teacher welfare	9	36
2	Security	7	28
3	Conditions of work	17	68
4	Interpersonal Relations	7	28
5	Job satisfaction	8	32
6	Administration	13	52
7	Need satisfaction	11	44
8	Cohesion	5	20
	Total	77	308

The instrument used in the study yields both a total global score indicating a general level of a teacher's morale and also the meaningful sub-scores which break down morale into eight components or the factors. The factor scores were obtained by summing up the weights assigned to the items belonging to a given factor. The total score is obtained by summing up the factor scores.

The Faculty Global Morale Score

The faculty morale score for each college was computed by finding the average total score and the average total scores for each of the ten components. This total score for a college gives one an idea as to what the average morale of the teachers of a college is. To interpret the score, to decide whether the score is indicative of 'high', 'average' or 'low' morale, the scores were converted into stanine scores, scores which range from 1 (low) to 9 (high) with a mean of 5 and a standard deviation of 2. The stanine score, though crude enough to present a single digit to represent each class, is precise enough for a practical and statistical comparison. As the stanines are equally spaced steps in a scale, the level of morale in one college can be easily compared with the level of morale in another college.

The distribution of the CTMO mean standard scores of each of the 122 colleges studied is given in Appendix VI. Their conversion into stanine scores yields the following scale values :

Table :4.17: Conversion of Double Standard Scores into Stanine Categories

Score Range	Stanine Scale	Interpretation		No.of cases falling within the Stanine		Total
308-292	9	Highest		5		
291-274	8	Very high	High	9		30
273-266	7	High		16		
265-246	6	Above Average		19		
245-226	5	Average		24		67
225-206	4	Below Average		24		
205-191	3	Above low		11		
190-173	2	Low		9		25
172-128	1	Below low		5		
				Total		122

The Table 4.18 on the next page reveals that there are 30 or 24.59 percent colleges which stand high in morale, 67 or 54.91 percent colleges which have average morale and 25 or 20.50 percent colleges which have low morale. The number of colleges (N = 67) manifesting average morale is

Table :4.18: Percentage of Distribution of Colleges under Morale Category

Morale Category	No. of Colleges	Percentage
High	30	24.59
Average	67	54.91
Low	25	20.50
Total	122	100.00

df = 4 Chi-square value 5.81 Significant at .30 level

the highest and the number of colleges manifesting the low morale is the lowest (N = 25).

These results were tested through the chi-square test. It yielded a value of 5.81 which was significant at .30 level.

The results of the Table 4.18 clearly show that the teachers of the colleges affiliated to the Gujarat University belong largely to the 'average' morale category. This supports the Hypothesis formulated in this regard.

Research evidence on teacher morale in secondary schools in India is available in fair measures. Patel (1973) found in his study pertaining to secondary school teachers of selected districts of Gujarat that teachers in more

DISTRIBUTION OF COLLEGES ACCORDING TO MORALE CATEGORIES

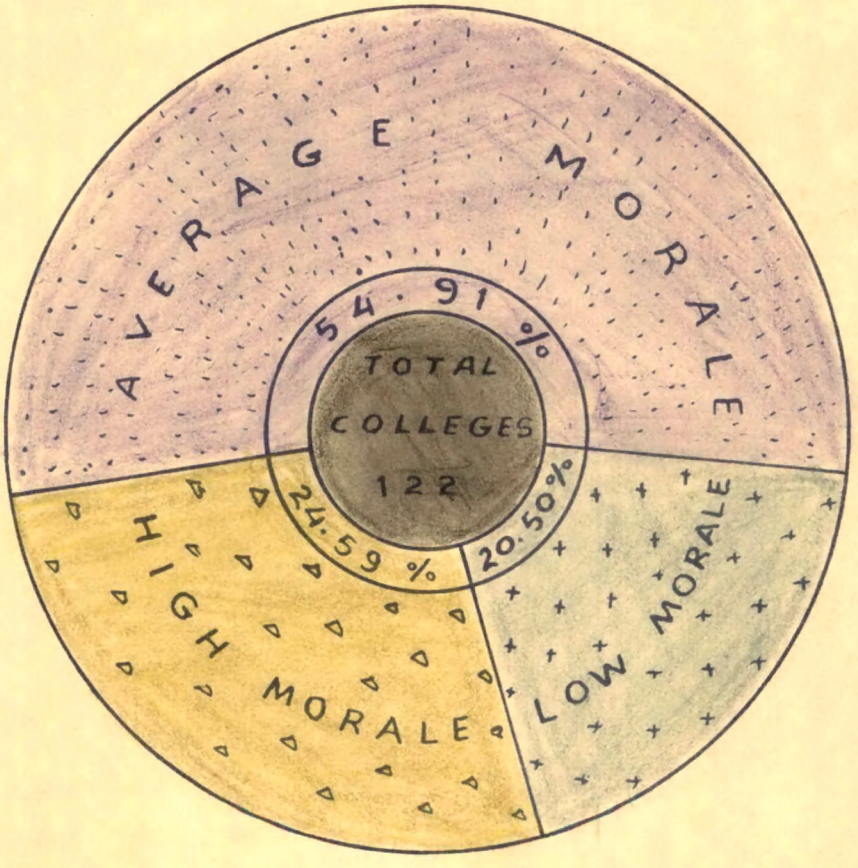


FIG. 10

progressive schools belonged to high morale category and the non-progressive schools to low morale category. Shelat (1975) found that more teachers in schools with openness of climate manifested high morale and in schools with closed climate manifested low morale. (Darji (1975) found that schools manifesting 'average' morale were in greater proportion than those manifesting 'high' and 'low' morale. Ivy Franklin's (1975) findings on the level of teacher morale in Colleges of Education in Gujarat State support the finding of the present study - teacher educators were found to belong largely to 'averaged morale' category. The findings of Pillai (1973), Shah (1975), Chokshi (1976), Tikmani (1976), Gupta (1976), Pramila Dekhtawala (1977) are in line with the finding on morale of the present study.

Faculty Global Morale Score Zone-wise

Another way to look at the global college teacher morale score of the affiliated colleges is to examine it zone-wise. This is done in Table 4.19 on the next page.

Taking the variable of 'zone' into consideration, it will be seen from the Table 4.19 that in the Central zone, a little more than half (19 or 52.8 percent) manifest high morale, whereas in the South Zone and North Zone higher percentages (55.3 and 56.4 respectively) belong

Table :4.19: Distribution of the Teachers according to 'High','Average', and 'Low' Morale in Perspective of Colleges in Central, South and North Zones

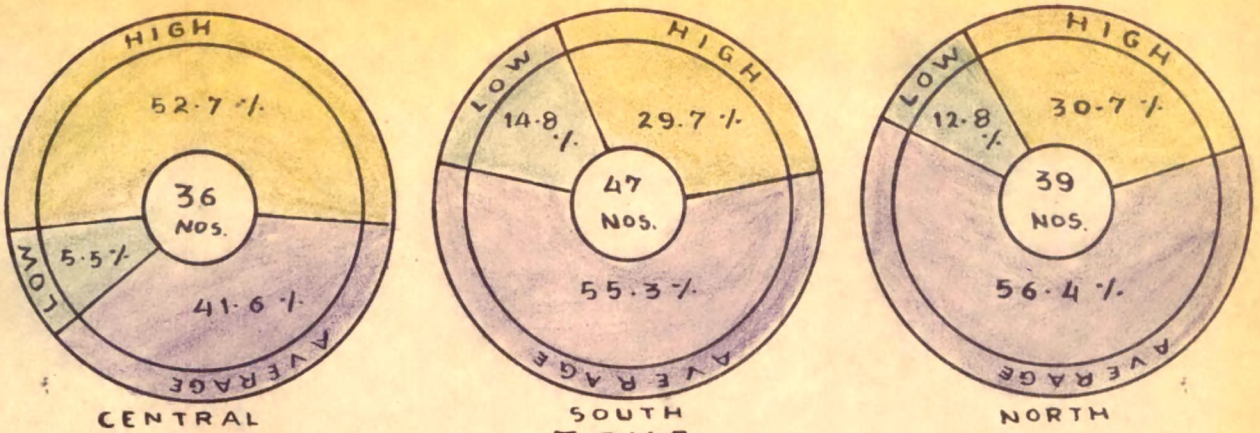
Zone	Morale Category			Total
	High	Average	Low	
Central	19 (52.8)	15 (41.7)	2 (5.5)	36 (100.00)
South	14 (29.8)	26 (55.3)	7 (14.9)	47 (100.00)
North	12 (30.8)	22 (56.4)	5 (12.8)	39 (100.00)

df = 4 Chi-square 63.9 Not Significant

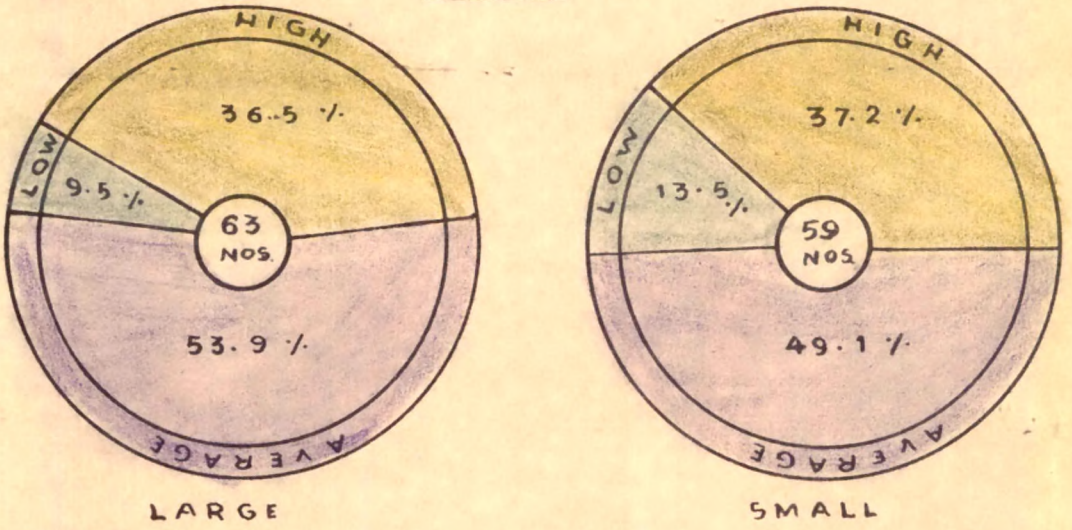
Note : Figures in parentheses are the percentages)

to the average morale category. When the results are subjected to chi-square test, the chi-square value was found to be 63.9 which is statistically not significant. Therefore, statistically, the zonal differences in college teacher morale are not real, but seem to be only a chance affair.

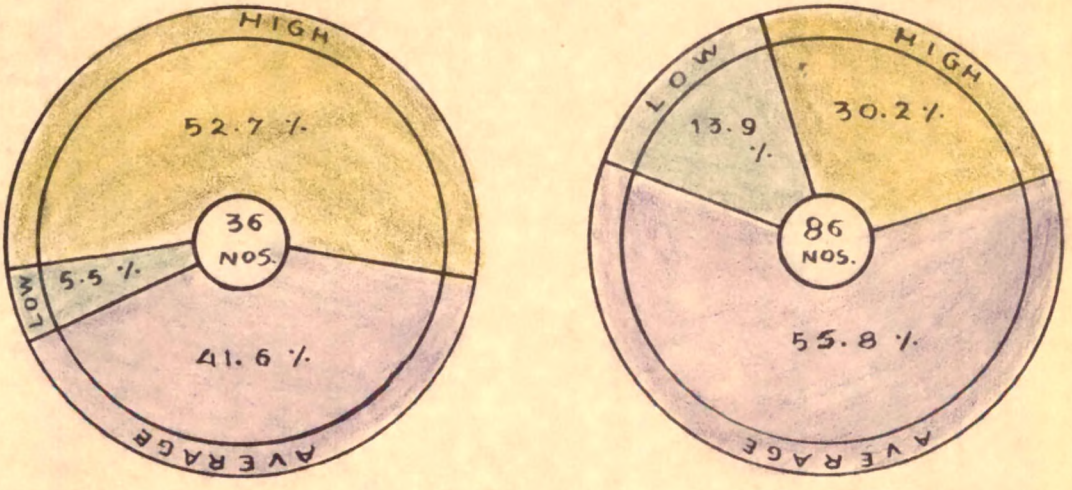
This result goes contrary to those found recently by Dekhtawala (1977) at school stage. She found that the teacher morale in the schools of South Gujarat region was significantly higher than the morale in the schools of West Gujarat (Kutch - Saurashtra) region. She also found that the South Gujarat region teachers had higher morale



ZONE



SIZE



PERCENTAGE DISTRIBUTION OF THREE MORALE CATEGORIES ON VARIABLES OF MORALE

FIG. 11

than those of the Western Gujarat region significant at .01 level. Teachers of South Gujarat were found to have higher morale than those of the North Gujarat region (Significant at .01 level) and also than those of the Central Gujarat region significant at .01 level. In the North Gujarat region, however, she found to be having higher teacher morale mean score significant at .01 level.

Faculty Global Morale Scores according to the Size of Colleges

In regard to the variable of size, Table 4.20 reveals that the highest proportion of teachers in large sized colleges (53.9 percent) and also in small sized colleges (49.2 percent) belong to average morale category. Thus, Hypothesis is apparently sustained so far as the variable of the size goes. But when its chi-square value of 37.77 is tested for significance, the relationship is found to be insignificant. Dekhtawala (1977) also in her study of Gujarat high schools found no significant relationship between size and morale category of teachers.

Table :4.20: Distribution of the Teachers according to the Three Levels of Morale Category against the Colleges of Lafge and Small Size

Size of Colleges	Morale Category			Total
	High	Average	Low	
Large	23(36.6)	34(53.9)	6(9.5)	63(100.00)
Small	22(37.3)	29(49.2)	8(13.5)	59(100.00)

df = 2 Chi-square = 37.77 Not significant

(Note : Figures in the parentheses are the percentages)

Table :4.21: Distribution of the Teachers according to the Three Morale Categories against the Colleges situated in Cities and Towns

Location	Morale Category			Total
	High	Average	Low	
City	19(52.8)	15(41.7)	2(5.5)	36(100.00)
Town	26(30.2)	48(55.8)	12(14.0)	86(100.00)

df = 2 Chi-square = 39.95 Not Significant

Note : Figures in parentheses are the percentages

The above table 4.21 shows that in city colleges, more teachers (52.8 percent) belong to the high morale category than they belong to the average morale category (41.7 percent). So, the Hypothesis does not seem to support in city colleges. But town colleges present a different picture. Here, the largest number of teachers (48 or 55.8 percent) belongsto the average morale category. The Hypothesis, thus apparently holds true in town colleges. But when these differences are tesбed through chi-square test results, the results are not found to be significant. Dekhtawala (1977), too, in a recent study found that there was no significant relationship between teacher morale of urban and rural secondary schools of Gujarat.

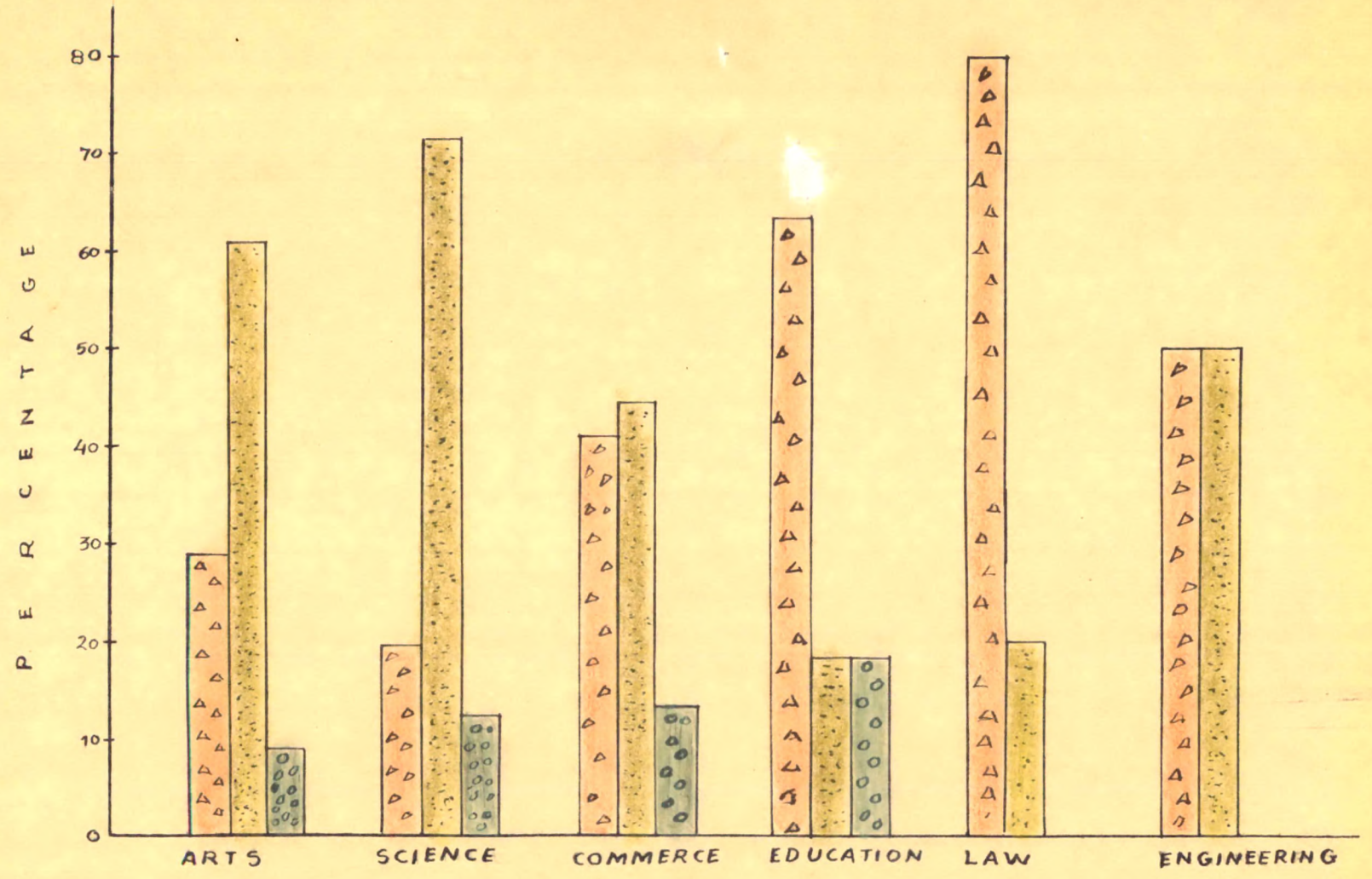
The Hypothesis can further be examined across the morale categories revealed by different Faculties of the

Gujarat University. The analyzed data with this regard are given in Table 4.22. It will be seen that in three Faculties - Arts, Science and Commerce - the highest proportion of teachers belonged to the average morale category. Their percentages are 61.2, 71.8 and 44.4 respectively. So, the Hypothesis apparently seems to be substantiated in these three Faculties. In two Faculties - Education (63.5 percent) and Law (80.8 percent), the top frequency is for 'high morale' category. By and large, as the results show, the affiliated colleges of the Gujarat University with 'low morale' is the lowest (N = 14).

Table :4.22: Distribution of the Teachers with 'High', 'Average' and 'Low' Morale in Different Faculties

Faculty	Morale Category			Total
	High	Average	Low	
Arts	9(29.0)	19(61.3)	3(9.7)	31(100.00)
Science	5(15.6)	23(71.9)	4(12.5)	32(100.00)
Commerce	15(41.7)	16(44.4)	5(13.9)	36(100.00)
Education	7(63.6)	2(18.2)	2(18.2)	11(100.00)
Law	8(80.0)	2(20.0)	-	10(100.00)
Engineering	1(50.0)	1(50.0)	-	2(100.00)
Total	45	63	14	122

Note : Figures in parentheses are the percentages.



DISTRIBUTION OF COLLEGES WITH MORALE CATEGORIES IN DIFFERENT FACULTIES

FIG. 12

Thus, though generally the Hypothesis that teachers of the colleges of the Gujarat University manifest 'average' morale rather than 'high' or 'low' morale is substantiated, variable-wise analysis substantiates the Hypothesis in some cases and does not support in other cases.

The question is : how far are these variations in teacher morale among the affiliated colleges statistically significant ?

Table :4.23: F-Ratio Test of the Significance of Variations among the Faculties of the Gujarat University

Faculties	Morale Category			
	High	Average	Low	
N	45	63	14	Grand Sum = 578
Mean	46.5	44.17	9.0	General Mean= 33.27

Analysis of Variance Results
(N = 122)

Source of Variance	Sum of Squares (Ss)	Degree of Freedom (df)	Mean Square (V)
Between	5296.11	2	2648.06
Within	53113	15	354.2
Total	10609.11	17	

$F = \frac{2648.06}{354.2} = 7.48^*$

F at .05 = 3.68
F at .01 = 6.36

* Significant

The analysis of variance shows that the F-ratio value of 7.48 is significant. This would mean that the differences in high, average and low morale categories of the Faculties of Arts, Science, Commerce, Education, Law and Engineering are significant among themselves.

4.8 Analysis of Factor-wise Scores of the CTMO with Regard to Four Groups of Variables

After having studied teacher morale in the affiliated colleges of the Gujarat University in its global form, the investigator thought it desirable to look at the performance of different paired Faculties on each of the eight factors of the tool CTMO (Baroda Form). To facilitate the tabulation of the data yielded by the tool, the factors were given serial numbers in the following order : 1. teacher welfare, 2. security, 3. conditions of work, 4. inter-personal relations, 5. job satisfaction, 6. administration, 7. need satisfaction and 8. cohesion. In four styles, the colleges were paired among themselves, viz., (1) Faculty-wise, (2) zone-wise, (3) size-wise and (4) city-town location-wise. The issue was : with regard to which specific factors of the CTMO would the teachers of each pair of the colleges have differences in their mean perceptions real significance and with regard to which other factors, would the mean difference be by chance and be not significant.

Table :4.24: Results of Tests of Mean Differences in Scores on CTMO Factor-wise and Four Styles of Pairing the Colleges

Pairs	CTMO factors on which 't' ratio is significant		
	At .01 level	At .05 level	Not significant
Group I			
Arts-Science	2	1	3,4,5,6,7,8
Arts-Commerce	-	2	1,3,4,5,6,7,8
Arts-Education	6	1,4,5	2,3,6,7,8
Arts-Law	4,5,6,8	3,7	1,2
Arts-Engineering	-	-	1,2,3,4,5,6,7,8
Science-Commerce	2	8	1,3,4,5,6,7
Science-Education	1,4,5,8	3	2,6,7
Science-Law	1,2,3,4,5,6,8	-	7
Science-Engg.	1	2	3,4,5,6,7,8
Commerce-Education	-	1,2,4,	3,5,6,7,8
Commerce-Law	4,6	8	1,2,3,5,7
Commerce-Engineering	-	-	1,2,3,4,5,6,7,8
Education-Law	-	6	1,2,3,4,5,7,8
Education-Engineering	-	-	1,2,3,4,5,6,7,8
Law-Engineering	-	-	1,2,3,4,5,6,7,8
Group II			
Central-South	6	1,5,8	2,3,4,7
City-North	-	-	1,2,3,4,5,6,7,8
South-North	-	7	1,2,3,4,5,6,8
Group III			
City-Town	-	1,6	2,3,4,5,7,8
Group IV			
Large-Small	-	6	1,2,3,4,5,7,8

Table :4.25: Faculty-wise Distribution of Mean Scores of the Components of CTMO (Baroda Form)

Components CTMO	Arts		Science		Commerce		Education		& Law		Engineering	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Teacher Welfare	20.32	3.61	18.44	2.12	19.89	4.37	22.19	3.52	22.0	3.74	23.50	2.12
Security	20.03	3.13	17.44	3.17	22.14	4.16	18.27	5.52	22.30	3.20	23.50	4.95
Conditions of work	42.61	5.71	41.72	4.91	44.11	7.07	45.46	6.28	47.20	6.03	44.50	9.19
Inter-personal Relations	22.03	3.24	21.69	2.75	22.31	2.97	24.46	3.36	25.30	1.50	24.00	1.41
Job satisfaction	17.26	5.94	18.84	4.09	18.17	3.12	21.48	4.96	20.80	4.16	19.00	5.66
Administration	37.26	4.90	38.84	3.94	38.17	4.22	41.18	3.26	40.80	4.06	39.00	4.66
Need-satisfaction	33.09	4.82	33.84	4.90	32.97	6.25	34.27	7.07	36.80	4.47	36.50	0.71
Cohesion	15.97	2.01	15.13	1.72	16.44	2.35	17.27	2.20	18.20	1.40	17.50	0.71

The Hypothesis VII, in this regard, is formulated as under :

> 'The factor-wise teacher morale mean scores as yielded by the CTMO would show significant differences when the Faculties are examined in perspective of the size, the location and the zonal distribution of their colleges.' (The Hypothesis VII)

To test the Hypothesis, the colleges were paired Faculty-wise, size-wise, location-wise and zonal classification-wise. The t-tests were used to test the significance between mean scores of different pairs in each of the four groups on each morale factor.

Table 4.24 presents the results of the t-tests of mean scores on the CTMO components in the cases of paired Faculties where the results are significant and where they are not. Table 4.25 presents Faculty-wise mean scores on different components of the CTMO.

(1) Factor I (Teacher Welfare) : On this dimension Faculty of Engineering has the highest mean score (23.50). Faculties of Education (22.19) and Law (22.00), too, have fairly good mean scores. But the difference among the Faculty-mean scores on this dimension is significant in the case of six pairs of the Faculties. These

Faculties where t values are significant at .01 level are the paired Faculties of Science-Education, Science-Law and Science-Engineering. In the paired Faculties of Arts-Education and Commerce-Education t is significant at .05 level and between Central Zone and South Zone in Group II and City colleges and town colleges in Group III, the t value is significant at .05 level. In other pairs of colleges in any of the Groups, it is statistically not significant.

Teacher welfare scores to be little cared for in most of the colleges. The mean score on this dimension ranges from 23.50 in the Faculty of Engineering to 18.44 in the Faculty of Science. The reasons for such low scores may be largely economical but partly administrative, philosophical and sociological. The present investigator had opportunities to discuss the issue of teacher welfare with some of the college principals and members of the management committees of the colleges she visited. She was told that colleges, particularly science colleges, are economically so vulnerable that even regular payment of monthly salary to teachers has become a problem. The same situation obtains in most of the colleges of education. When the college managements are faced with financial crisis and when they find that often enough funds are not left to run the colleges, the question of a good measure of programme of teacher welfare becomes only an ideological proposition. Where principals are

considerate and have manifested dynamism and leadership qualities, they are able to help, by collecting funds from students, teachers and local community, the family of a teacher who suddenly dies or meets with an accident. There are colleges which are not able to provide staff cabins and as it happens in high schools, staff members have a common room to share where there are little facilities for them to relax in free periods or have some recreation like indoor games, etc.

In a number of the affiliated colleges, the concept of teacher welfare has not been accepted philosophically by managements. When the investigator asked some of them as to what provision they have made for teacher welfare, they stared at her expressing their amazement and amusement at the idea that teachers need welfare services when they are paid monthly salaries. Sociologically, also, the need to provide health services, travel concessions, deputations to inservice programmes appears to be perceived useful, but still there are principals and college management secretaries who told the investigator that their first endeavours would be to provide welfare services for students, and as far as teachers are concerned they should take care of themselves. In a poor country like India where Governments do not pay private colleges half the money they actually need, to talk of services like 'teachers' welfare'

becomes unrealistic and irrelevant.

(2) Factor II (Security) : With regard to this factor, the t-test values are significant in the case of Faculties of Arts-Science, Science-Commerce and Science-Law at .01 level and in the case of Faculties of Arts-Commerce, Science-Engineering and Commerce-Education at .05 level. In none of the other pairs in Groups I, II, III and IV, the values of t-tests are significant. That is to say that differences in mean scores of other paired variables on the factor of security are only by chance and not real.

This has fast becoming weakest link in higher education in a State like Gujarat where colleges depend upon their sustenance on student tuition fees and State Government grant-in-aid on approved annual expenditure. Most of the affiliated colleges of Gujarat are dependent upon their Pre-University Classes which bring to them substantial revenue through tuition fees. From June 1976, the Government of Gujarat has introduced 10 + 2 + 3 educational pattern. This means that from June 1977, the Pre-University Class from colleges will be transferred to schools and colleges will largely be only three-year degree courses. This has made the job security of junior college lecturers extremely vulnerable. It is reported in the Gujarati Press that several college managements have served notices of termination of services to their PUC college lecturers from June 1977. The spokesman of the Gujarat Government repeatedly make statements that no college teacher would suffer from

retrenchment, yet no tangible and concrete steps have been taken by Government to dispel the fear of college teachers about their being without job in June 1977. The same threat of retrenchment is before the teachers working in colleges of education and of science. Only teachers of Arts, Commerce, Law and Engineering seem to enjoy relatively better position of security. Here, the mean score ranges from 23.50 in the Faculty of Engineering to 18.44 in the Faculty of Science.

But vulnerable security is a real threat to the maintenance and improvement of college teacher morale. This is likely to continue unless college finances are strengthened and placed on reasonably sound basis.

(3) Factor III (Conditions of Work) : The difference of mean scores on this factor is significant at .01 level between the Faculties of Arts-Law and Science and Law, and at .05 level between the Faculties of Science and Education in Group I. It is not significant between any pairs within other groups.

Looking to the range of mean scores from 47.20 in the Faculty of Law to 41.72 in the Faculty of Science (out of a total possible dimension score of 68), it appears that conditions of work are fairly satisfactory in the affiliated colleges of the different Faculties. In some of the colleges which the investigator personally visited and where she had an opportunity to observe, talk to teachers and discuss with

college principals, she was told that conditions of work are no better than those there are available in a big high school. She was told that since a number of science and education colleges are not able to make to their staff members regular payment of monthly salaries, the principals dabble the least in the work of the college teachers. At least they are under no pressure or tension to do their work. It was also brought to her notice that principals try to make things as much congenial as possible for them to do within their financial means. The college libraries show marked improvement because colleges are required by the University to buy books worth at least Rs. 3000 a year and the University Grants Commission too, gives money-funds for building College Library bank. Teachers, by and large, get subjects of their choice to teach. Of course colleges still continue to be unsatisfactory in instructional materials and aids, and little attempts are made by the college leadership to motivate teachers to use audio-visual aids or use methods of discussion or take seminars. Lecturing is the dominant method. Tutorials, in their true sense, are little understood. With all these, one can say that teachers are able to work to teach as best as they can or as best, as they want to teach. The focus of 'work' or 'no work' or 'good work' or 'indifferent work' has now shifted to teachers. Some teachers teach enthusiastically and give the best account of them; some just go to the class

and either teach from their old notes or even 'dictate' notes and some teach but indulge in so many digressions and irrelevant things that one is not sure how much 'learning' results in students. Though conditions of work mark a trend towards improvement, the other concommitant factors are such that the inputs in terms of improved conditions of work are not effectively transformed into 'outputs'.

(4) Factor IV (Interpersonal Relations) : The mean differences in scores of Faculties of Arts-Law, Science-Education, Science-Law, Commerce-Law at .01 level and the Faculties of Arts-Education and Commerce-Education at .05 level on this factor are significant in Group I. In all other pairs in this and other groups, the differences in mean scores are found to be not significant.

On this component also, the mean differences of Arts (22.03) and Law (25.30), of Commerce (22.31) and Law (25.30), Science (21.69) and Education (24.46), and Commerce (22.31) and Education (24.46) are significant at either .01 level or .05 level. The mean scores also range from 25.30 in the Faculty of Law to 21.69 in the Faculty of Science. This means that teachers of these Faculties are having their socio-psychological need satisfaction. The one good thing about teachers of colleges of Indian universities

is that most of them are informal and personal in their relationships. It was seen earlier in Table 4.6 that the mean scores on the ICDQ dimension of 'Intimacy' were 48.97 (Arts), 54.50 (Science), 51.22 (Commerce), 51.91 (Education), 48.00 (Law), and 47 (Engineering). Thus, the Gujarat University College teachers, in most cases, have inter-personal relations so far as teachers are concerned. The inter-personal relations between teachers and heads, in traditional societies with bureaucratic past may not be high as one hears is the case in democratic countries like the U.S.A., Canada and even Great Britain. But what is bringing teachers together and making them more intimate is the fact that their problems with the principal or college managements have been on an increase in the last decade and a half with rapid expansion of students and lack of corresponding increase in the financial resources of the colleges in which the State grant-in-aid has been found to be only partially helpful.

(5) Factor V (Job Satisfaction) : Results of the t-tests of mean differences in scores of Faculties of Arts-Law, Science-Education, Science-Law at .01 level and of Faculties of Arts-Education at .05 level in Group I on this factor are significant. In Group II, the difference

between the mean scores of Central-South zone colleges on this factor is significant at .05 level. In all other cases, the differences are found to be not significant.

Table 4.25 gives a fairly satisfactory picture of mean scores of different Faculties. The mean scores are : 20.80 in the Faculty of Law, ✗ in the colleges of Education, in the Faculty of Engineering, 18.17 in the Faculty of Commerce, 17.26 in the Faculty of Arts and 18.84 in the Faculty of Science. When one considers the total possible scores of 32 on this dimension, the mean scores should be considered satisfactory. It will be seen that teachers in Faculties of professional education have higher degree of job satisfaction than those in academic Faculties of Arts and Science. That teachers of the Faculty of Science have the less mean score on this dimension may appear surprising at the first sight, but it is the teachers of this Faculty who are the worst sufferers in regular payment of their monthly salaries. Eversince, the Gujarat University made it obligatory for a student seeking admission in the Pre-university Science Class to have passed in the subject of Higher Mathematics in the qualifying Secondary School Examination at the end of Standard XI, enrolments in Science colleges

has dwindled to a miserable extent. To run a Science College in these days, is a financial hazards. Science Colleges are costly and they have limited funds. Most of them afe not able to pay salaries to their teachers continuously for two or three months. This naturally demoralises them, and naturally they have little job satisfaction. The same story of irregular payment of monthly pay scores is true in colleges of education. But being professional colleges, college teachers in colleges of education take to their jobs and they work with better adjustment to their lot.

When the investigator visited a sampled number of colleges during her field visits for data collection, she carried the impression that job-satisfaction among college teachers has been deteriorating and the University of Gujarat University Area Teachers' Association should take proper measures to see that college teachers do not lose their keenness of interest in doing their academic job and do not think more as trade unionists.

(6) Factor VI (Administration) : Table 4.24 shows that differences in mean scores on this component of the CTMO between the Faculties of Arts and Law, Science and Law, and Commerce and Law at .01 level and between

Education and Law Faculties at .05 level in Group I are significant. At .01 level in first pair in Group II, the mean differences is significant. They are significant at .05 level between city colleges and town colleges in Group III and between small sized colleges and large sized colleges in Group IV.

In most of the colleges, administratively the principal is perceived as the keyman. The feeling generated is that the principal is different from the group of teachers rather than he is a comrade or co-worker. Not all college administration is centralised and authoritarian, but there is no doubt that in colleges everything is principal-oriented and he is assumed to be and he himself or she herserself assumes him or her as important, superior to others. In some colleges, the investigator found that the staff members have a voice and involvement, but in a number of colleges she also found the teachers mostly at the 'receivers end', having little opportunities to give something to the administrators. Either feedback is nomial or is disregarded or is utilised to the extent to which it is convenient to the administrators. The communication channel is limited and in most cases, flows from the top to the bottom. The investigator also

came across cases of some colleges where some teachers assume leadership role or a role of nuisance - causation and is creating for the principal and the college administration all kinds of difficulties. She also found some principals dependent entirely on either some senior staff members and/or college head clerks to brief them in administrative matters. With all these, it is surprising that mean scores on this dimension ranges from 41.18 in the Faculty of Education to 37.26 in the Faculty of Arts. Very few colleges have inner teacher counsel with whom principal can discuss administrative issues and problems. The old image of principal as a 'ruler' has considerably changed but still some of the older traditions, attitudes and values stick to the position of the college administrator.

(7) Factor VII (Need Satisfaction) : The results of of t-tests on this factor are found to be significant only in the case of Faculties of Arts and Law in Group I and in the case of colleges of South and North zones in Group II. In other paired Faculties and in the case of the variables of zone, size and location, the t-values are not at all significant.

The mean scores of the Faculty of Arts on this dimension is 33.09 and of the Faculty of Law is 36.80. In other faculties also, where the differences are not

significant mean scores range from 32.97 in the Faculty of Commerce to 36.80 in the Faculty of Law. Against the possible total of 44 these means may be considered quite satisfactory. They are indicative of the fact that the social and psychological needs of the personnel of colleges are satisfied to an appreciable extent. This could be explained partly on three grounds, firstly an Indian teacher whether working in a school system or in a college system is informal by nature and in his own way makes efforts to meet his own social needs. Only when the question of a psychological need of recognition, love, security and adventure is concerned he meets difficulties from a senior colleague and sometimes from the principal. To that extent his needs may remain unfulfilled. Secondly, there has been an emerging trend that standards in colleges are falling and therefore greater stress should be placed on task accomplishment. When such an ideology becomes predominant in a college, teachers are expected to be more work oriented rather than trying to satisfy their interpersonal needs. And lastly, ever since higher education received its due recognition and status from the government and from the society, the college has come to be conceived more as a temple of devoted and dedicated teaching and learning rather than a place where precious time could be wasted in trifle and insignificant talks and acts.

It is true that this picture too is changing on account of newly emerged forces and pressures. Colleges have not been able to keep them alert from the cross currents of political climate in the local environment in the State and in the country. These new situations that are now developing have placed teachers in an environment which gives them greater exposures to an interpersonal relations. Therefore the educational scene in colleges of Gujarat as well as of India is likely to be in an increasingly improving situation to have for the teachers both social and psychological need satisfaction.

(8) Factor VIII (Cohesion) : The differences in mean scores on this factor are found significant at .01 level in the Faculties of Arts and Law, Science and Education and Science and Law and at .05 level in the case of the Faculties of Science and Commerce, Commerce and Law. They are not significant in any of the other pairs under Group I. The mean difference is found to be significant at .05 level between colleges of Central and South zones only. In other groups the t-values were found to be insignificant. A reference to Table 4.25 shows that the mean scores on this dimension among different faculties are pretty high in as much as they range from 18.20 in the Faculty of Law to 15.13 in the Faculty of Science out of a possible total score of 20. It is no matter of

surprise that the t-values are significant at .01 level in the Faculties of Arts and Law, Science and Education and Science and Law and significant at .05 level in the paired Faculties of Science-Commerce and Commerce and Law. In this group of significant t-values, the Faculty of Engineering does not figure probably because the data from that Faculty might be inadequate. However, the points of importance are principally three. Firstly, the high mean score in different faculties indicates a fairly good measure of cohesion among the staff of the colleges. It appears that they largely operate as a team or a cohered group. In higher education institutions, when paucity of fund is a major problem, it is possible to have cases of dissatisfaction among the staff and there may be even occasions of open or latent conflicts between one or more staff members with the college management. When the present investigator visited some of the colleges for data collection, she could smell the smothered smoke but she could also see that college teachers have begun to understand the financial pinches that their college managements constantly have, they tend to be reconsiled to the unavoidable inadequacies in the situation. Therefore, barring a few cases which can best be described as psychological cases, teachers by and large, work harmoniously in perfoming their academic task. Secondly, in the course of last few years the Gujarat University Area Teachers' Association has been able to cement teachers of the university scattered

over the wide area of the Gujarat University to put up fight on issues that have the larger good of the teaching fraternity of the university. And lastly, owing largely to the initiative and support of the University Grants Commission, particularly during the Fourth and Fifth Plan periods the activities of inservice professional education for college teachers have considerably expanded. Frequent meetings of teachers in seminars, workshops, work groups and committees have contributed towards developing among them a kind of fellow-feeling for one another and have paved the way for group cohesion in individual colleges and in college systems. The sum and the substance of the above results and discussion is that the factor-wise teacher morale mean scores, as yielded by the CTMO, show significant differences in a few cases and only chance differences in most cases. Therefore, the Hypothesis, as it is formulated in the present study, cannot be accepted in its totality.

4.9 Relationship of Teacher Morale with Climate

As it was stated earlier, the dependent variable in the present study is the institutional climate of the sampled affiliated colleges of the Gujarat University. Teacher morale in these colleges was selected as an independent variable with a view to finding out whether it bears any significant positive relationship with the climate categories of the colleges. The investigator chose to do so because the earlier

Indian studies done on climate on secondary schools by Bhikhu Patel (1973), Kothai Pillai (1973), Neela Shelat (1975), Darji (1975), and others, and on colleges by Shah (1975), Franklin (1975), Chokshi (1976), Tikmani (1976), and Gupta (1977) have revealed a trend of significant relationship of climate with teacher morale. Studies by Hoagland (1968), Eberlain (1968), Turner (1969), Pettibone (1970), Clough (1971), Grassie and Carr (1972), Clayton (1973), Ellenberg (1973), Houriochi (1973), Smith (1973), Morris (1973) and others had also confirmed positive relationship between teacher satisfaction variable (a morale factor) and teacher perception of climate. The investigator's purpose in formulating the present Hypothesis was to find out whether her study of institutional climate of affiliated colleges of the Gujarat University reveals the same trend of significant relationship between climate and teacher morale or not.

The Hypothesis is formulated as under :

'Institutional Climate of Affiliated Colleges of the Gujarat University as measured by the ICDQ, and morale of teachers working therein, as measured by the CTMO are significantly related.' (The Hypothesis VIII).

To test the Hypothesis, the three level classification of teacher morale based on stanine scores, the chi-square

test and contingency coefficient were used.

The Table 4.26 given below presents the three level classification of teacher morale stanine scores across the three categories of institutional climate of the sampled colleges.

Table :4.26: Relationship between Climate and Teacher Morale of the Sampled Affiliated Colleges

Teacher Morale level	Climate Categories		
	Open	Intermediate	Closed
High	73.5(25)	32.2 (19)	3.4(1)
Average	26.5(9)	55.9 (33)	72.5(21)
Low	-	11.9 (7)	24.1(7)
	27.8(34)	48.4 (59)	23.8(29)

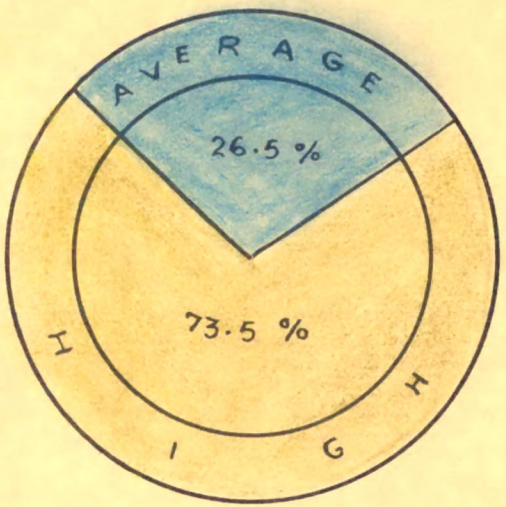
df = 4 Chi-square value = 6.2 Significant at .01 level

Note : Figures in brackets are the number of colleges

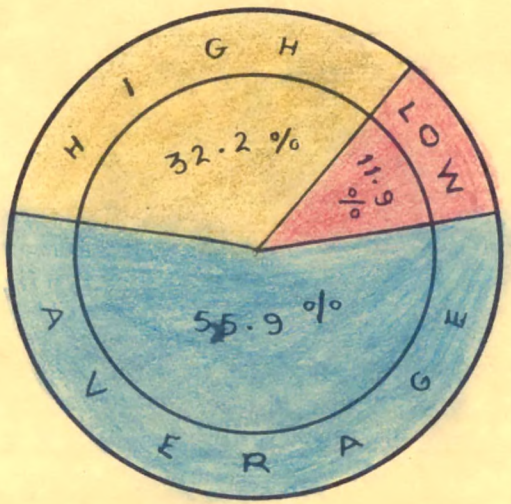
The morale categories were determined on the basis of morale stanine scores, stanines 9 to 7 constituting 'high' category, stanines 6 to 4 constituting 'average' category and stanines 3 to 1 constituting the 'low' category.

Figures within brackets denote frequencies and outside brackets percentages.

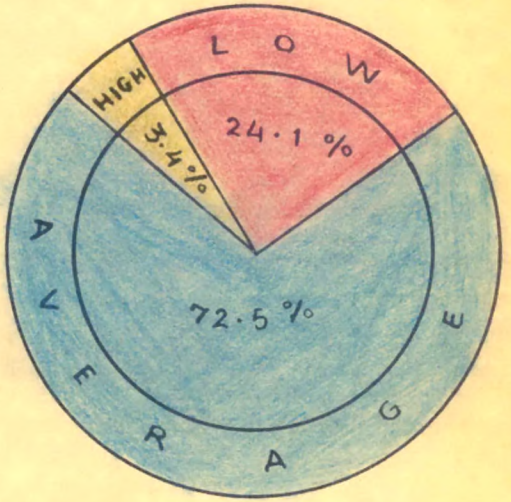
MORALE



OPEN
CLIMATE



INTERMEDIATE
CLIMATE



CLOSED
CLIMATE

FIG. 13

INTERRELATIONSHIP BETWEEN CLIMATE & MORALE

On the first glance at the table, it appears that 'high' morale has the highest percentage (73.5) in the Open Climate cell; 'average' morale has the highest percentage (55.9) in the Intermediate climate cell and 'low' morale has the highest percentage (24.1) in the Closed Climate cell.

But this apparent relationship between morale levels and climate categories needs to be probed through appropriate statistical procedures. She, therefore, decided to test the significance through applying chi-square tests and computing contingency coefficient or 'C'.

The Table 4.26 is a 3 X 3 contingency table, where the climate frequencies are into three groups, viz., Open, Intermediate and Closed and the morale frequencies are also in three groups, viz., High, Average and Low. The expected frequencies within parentheses for each cell are determined by multiplying the two marginal totals common to that cell and then dividing this product by N, the total number of cases.

The chi-square values were computed to test the significance of relationship between institutional climate scores and teacher morale scores of the sampled colleges. The chi-square value obtained was 6.2 which

was found to be significant far beyond the .01 level at 4 degree of freedom. The 'C' was calculated using the following formula :

$$C = \sqrt{\frac{\chi^2}{N + \chi^2}}$$

The 'C' was found to be .48. The 'C' is significant through its relation with chi-square. Therefore, the reported finding of dependency between the two variables of climate and morale is significant and positive. That is to say, that the two variables are significantly correlated. Therefore, the Hypothesis VIII is substantiated.

The investigator thought it desirable to probe deeper into this positive and significant relationship between institutional climate and morale of teachers of the sampled colleges. She, therefore, decided to test whether differences of mean scores of Open and Intermediate Climates, Open and Closed Climates and Intermediate and Closed Climates on the eight factors of morale were significant or not. To test this, she used t-tests for different climate pairs. The results of the t-tests are presented in Table 4.27 on the next page.

Table :4.27: Examination of Relationship of Eight Factors of CTMO with Three Types of Climate

Paired Climates	Teacher welfare	Security	Conditions of work	Interpersonal Relations	Job satisfaction	Administration	Need Satisfaction	Cohesion
Open-Inter.	4.58**	5.18**	5.17**	3.83**	3.54**	3.68**	4.58**	4.77**
Open-Closed	4.34**	9.12**	8.67**	5.96**	7.85**	6.28**	4.65**	6.36**
Int.-Closed	1.54	3.38**	3.02**	2.90**	3.57**	3.00**	1.59	1.49

** Significant at .01 level

From the table 4.27, it will be seen that the 't' values of all the eight factors of the CTMO (Baroda Form) are significant at .01 level. Further, the means of the Open climate on these factors are greater than the means of Intermediate and Closed climates. This would suggest that the contribution of all the eight factors in building up Open climate in the colleges is higher than building up either Intermediate Climate or Closed climate.

Again, the difference shown by the t-ratio between Intermediate and Closed climates is also significant at .01 level in the cases of the factors of 'Security', 'Conditions

of Work', 'Interpersonal Relationship', 'Job Satisfaction', and 'Administration'. Further, the means of the Intermediate climate type of colleges against the means of Closed climate type colleges are greater, meaning thereby that the 'Conditions of Work' and 'Security' are more in Intermediate Climate colleges than in the Closed climate colleges.

From the above discussion, it can be concluded that the eight different components that constitute the morale of the teachers in the colleges affiliated to the Gujarat University as measured by the CTMO are found to make a significant contribution in building up Open Climate in colleges and it is the lack of the contribution of these factors that probably tends to create closed climate colleges.

4.10 Inter-Correlations among Climate Dimensions and Morale Factors

After discussing the contributions of the factors of teacher morale to the climate types of the affiliated colleges, it will be interesting to study the relation of each of the climate dimensions with each of the eight morale factors.

The Hypothesis was formulated in this regard as under :

'Of the twelve dimensions of the ICDQ, 'Disengagement', 'Hindrance', and 'Aloofness' will be negatively related with all the factors of the CTMO.' (The Hypothesis IX)

The Hypothesis was formulated to make another type of correlation analysis. Here the correlation that is sought to be established is between certain individual dimensions of the climate as measured by the ICDQ and the eight individual factors of teacher morale as measured by the CTMO. In this comparison, the types of climate and levels of morale were ignored.

As has been discussed earlier, the mean scores of these dimensions (disengagement, Hindrance and Aloofness) are very low in Open climate. Further, Open climate is found to be effective in respect of educational outputs in a number of studies including the ones by Kumar (1972), Sharma (1973), Patel (1973), Pillai (1973), Shelat (1975), Darji (1975), Franklin (1975), Chokshi (1976), Tikmani (1976) and Gupta (1977). The staff members in Open Climate institutions enjoy good relations, obtain job satisfaction, have their social needs w relatively well satisfied, feel relatively more secured in their job and have healthy conditions of work. The disengagement on the part of the teachers and Hindrance from the principals in these climate institutions are very low. The principals do not remain aloof-rather they manifest good

Thrust and show concern for the welfare of their teachers.

To test this hypothesis, the t-test technique was used. The t-values for each of the morale factors across each of the climate dimensions were computed. They are presented in Table 4.28 on the next page.

From the Table 4.28, it can be seen that there is marked and substantial correlation between 'Disengagement' and the eight factors of teacher morale as measured by the CTMO. This correlation is significant at .01 level. But as is seen from the table, the correlation is negative. This means that the high degree of 'Disengagement' is associated with low degree of 'Teacher Welfare', 'Conditions of Work', 'Interpersonal Relations', 'Job-satisfaction', 'Administration', 'Security', 'Need satisfaction' and 'Cohesion'.

The same is the trend of results found between the dimension 'Hindrance' and the factors of morale. Here, also, the correlation between Hindrance and each of the eight factors of the CTMO is found to be significant at .01 level, but the correlation is negative, meaning thereby that when there is 'Hindrance' from the principals of colleges in the work of their teachers, the morale of the teachers goes down. That is to say, 'Hindrance' and morale are associated negatively with each other.

Table :4.28: Correlation Between Climate and Morale

Factors of Morale	Dimensions of Climate												
	Disengagement	Hindrance	Esprit	Intimacy	Aloofness	Production Emphasis	Thrust	Consideration	Organisational Structure	Communication	Human relations	Decentralisation Democr. Freedom	Global
1.Training Welfare	-.48**	-.54**	.13	.07	-.42**	.28**	.21*	.34**	-.02	.41**	.24**	.29**	.51**
2.Security	-.53**	-.65**	.30**	.09	-.54**	.14	.14	.28**	.20**	.55**	.17**	.42**	.66**
3.Conditions of work	-.53**	-.60**	.21*	.14	-.48**	.08	.18	.35**	-.01	.57**	.22**	.41**	.67**
4.Internal Relations	-.51**	-.60**	.28**	.05	-.41**	.20*	.14	.22*	.04	.50**	.20*	.37**	.57**
5.Job Satisfaction	-.57**	-.63**	.24**	.08	-.55**	.16	.19*	.30**	.05	.62**	.23*	.45**	.67**
6.Administration	-.32**	-.51**	.16	.03	-.56**	.08	.10	.34**	.08	.55**	.20*	.35**	.55**
7.Need Satisfaction	-.48**	-.49**	.18*	.19*	-.30**	.30**	.08	.16	.06	.35**	.08	.26**	.44**
8.Cohesion	-.53**	-.53**	.10	.41**	-.39**	.13	-.07	.20*	.09	.44**	.14	.29**	.56**

* Significant at .05 level : ** Significant at .01 level

Looking at the dimension 'Aloofness', it is seen that the correlation of 'Aloofness' with each of the factors of morale does exist and is significant but it is also negative, meaning thereby that the high degree of 'Aloofness' on the part of the college principals leads to low degree of the morale of their teachers.

Thus, the results shown in Table 4.28 support the Hypothesis :

> 'Of the twelve dimensions of the ICDQ, 'Disengagement', 'Hindrance' and 'Aloofness' will be negatively related with all the factors of the CTMO.' (The Hypothesis IX).

From the table it is also found that the correlations of 'Organizational Structure', the ninth dimension of the ICDQ, with 'Teacher welfare' and 'Interpersonal Relations', the first and the third factors of the CTMO are also negative. This may mean that the high degree of teacher welfare and interpersonal relations is associated with low degree of organizational structure. But the results show that the correlation is negative and is not significant at all either at .01 level or at .05 level. Looking at the correlation of this dimension of the ICDQ with the remaining six factors of the CTMO, it is seen that none of their correlations is significant. This means that 'Organizational Structure' and the morale of the teachers are not related with each other.

Further, looking at the correlation of 'Climate - Global Score' (the last column) with the eight factors of the CTMO, it is seen that the relation is positive, significant and substantial i.e. the high degree of climate score is associated with high degree of scores on eight factors of the CTMO.

Patel (1973) and Kothai Pillai (1973) have found similar inter-correlationship among climate dimensions and morale factors. It shows that the results of the testing of Hypothesis IX are supported by results of some previous studies on the same issue though different tools were used in them.

4.11 Student Control Ideology of College Teachers as Measured by the SCI

In some of the previous sections an attempt was made to examine the possible relationship the teacher morale variable has with the institutional climate variable. The general conclusion that emerged from this discussion was that not only institutional climate of the sampled affiliated colleges of the Gujarat University was significantly correlated with teacher morale in general but Open Climate of Colleges was found to bear significant relationship with high morale and Closed Climate with low morale.

Another focal point in the present study is to probe into the possible relationship which the Open and Closed climate

typology has with the student control ideology. This variable is studied for the first time in the context of colleges of Gujarat or of any other state in India.

Educational institutions - schools and colleges - are social institutions. The traditional view is that students are to be controlled in order that they can be moulded in desired ways with benefits to them and to the society at large. Administrators and teachers imbibe this control ideology from the social ethos. Iron discipline and bureaucratic control of students that were advocated in the days of colonial rule of India by Britain had given rise to several general and specific problems. The new progressive movement in education was the result of the reaction to the bureaucratic student control ideology that prevailed in pre-Independence days. Researches in psychology and sociology have shown what tremendous harms are done to the students, institutions and the society by following the control ideology of the type. The movement for humanising education grew out of the increasing realization of manifold harms being done to students' personality development and to the educational system by taking the student control ideology to the extreme. From this, a realization grew that psychological and social needs satisfaction is as vital in educational

institutions as task-accomplishment. This has given rise to humanistic student control ideology as against custodial student control ideology. As conceptualised in Chapter I, custodial student control ideology is characterised by stress on maintenance of order, impersonality, one-way downward communication, distrust of students, and a punitive, moralistic orientation toward the control of students. As against this, humanistic student control ideology is marked by an acceptance of trustful view of students, respect and trust of their individuality and confidence in their basic goodness.

Colleges can be broadly divided into two groups, one catering to the general or liberal higher education of students and the other preparing students for vocations and professions. The latter type of colleges has more tight training schedules and programmes and the teachers working therein are likely to espouse custodial control ideology to a greater extent than those of colleges of general education where ideology may have large humanistic orientation. Against such a conceptual framework, the following Hypothesis is formulated. It is worded as under :

> 'There would be marked variations among the teachers of different Faculties in their student control ideology as measured by the SCI.' (The Hypothesis XI)

As was done earlier, the six Faculties of the Gujarat University - Arts, Science, Commerce, Education, Engineering and Law - will be considered for examination of variation in the control ideology of their teachers. The SCI has in all 20 items, 11 of which reflect custodial ideology and 9 humanistic ideology.

Table :4.29: Mean Scores of Teachers of Different Faculties on Custodial and Humanistic Ideology as measured by SCI

Faculty	No.of Teachers	Mean Scores of Custodial Ideology	S.D.	Mean Scores of Humanistic Ideology	S.D.	t values	Level of significance
Arts	147	23.00	2.68	35.64	4.54	2.63	.01
Science	118	38.37	4.39	21.66	3.00	2.44	.05
Commerce	115	20.83	3.94	39.25	4.34	2.84	.01
Education	29	34.91	5.11	23.45	7.08	2.16	.05
Law	18	38.60	7.69	22.00	6.13	2.22	.05
Engineering	7	32.50	2.12	27.50	2.12	2.65	.01
	434						

The results are revealing. The Faculty of Arts has a higher mean score (35.64) on the Humanistic control ideology than it has on Custodial control (23.00). This may be explained probably

MEAN SCORE OF TEACHERS OF DIFFERENT FACULTIES ON COSTODIAL AND HUMNISTIC IDEOLOGY

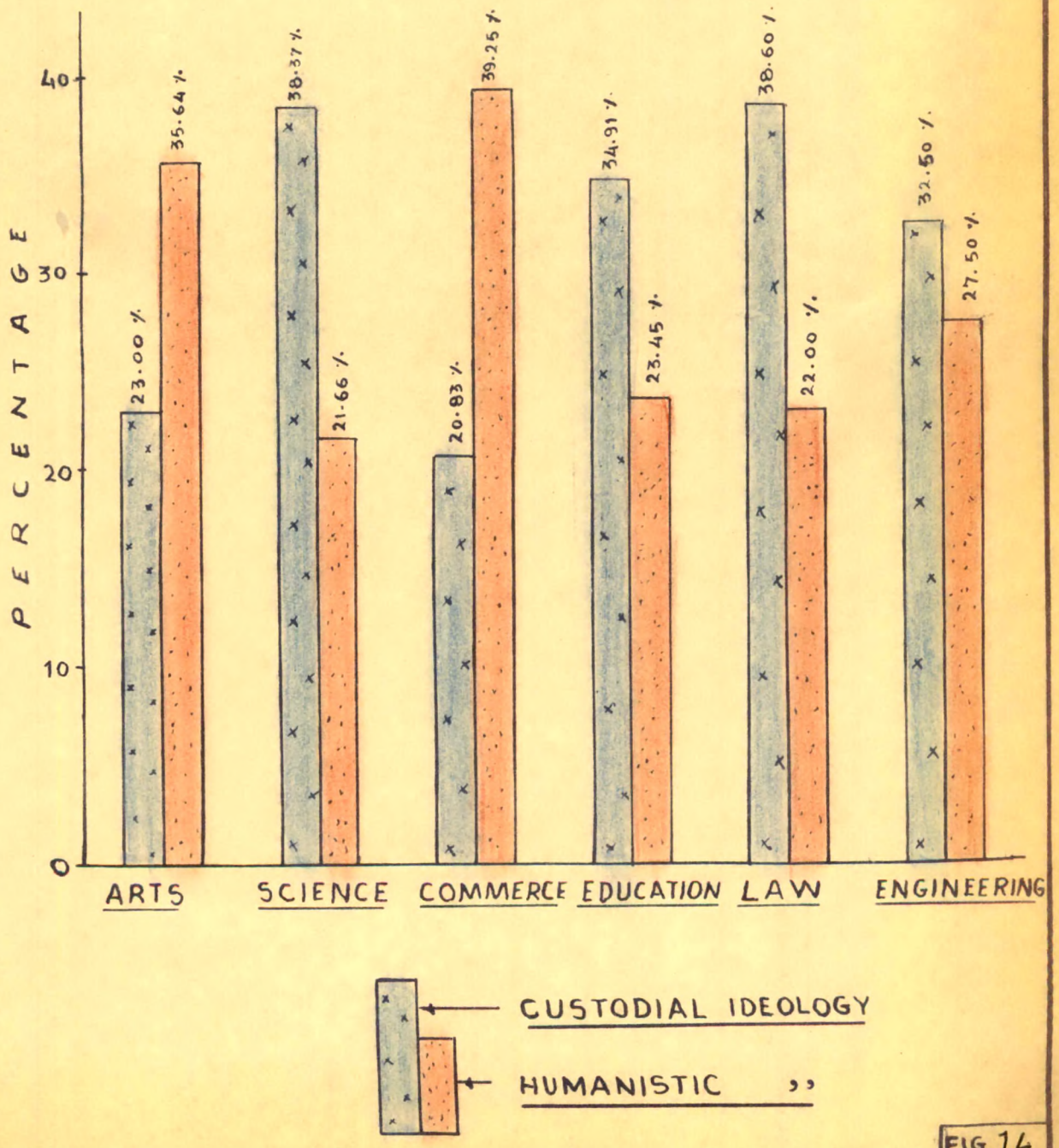


FIG. 14

by the fact that Arts Colleges have more liberal outlook. Further, the enrolment in these colleges is comparatively larger and, therefore, as one of the principals of the sampled Colleges has put in, 'Custodial Control Ideology in Arts colleges would create more problems than solve them.' Traditionally also the mood of teachers and students, as it is alleged often, is easy-going. The same trend of higher humanistic mean score is evident in Faculty of Commerce. But the picture changes in professional colleges where there is more commitment to goal achievement and the task achievement. A higher mean score in custodial ideology makes sense in these Faculties. Even in the Science Faculty the Custodial control mean score (38.37) is higher than it is in Faculty of Arts (23.00).

The significance of differences in mean scores on custodial and humanistic control ideology is tested through t-test technique. The results show that the t-values are significant in the Faculties of Arts, Commerce and Engineering at .01 level while in the Faculties of Science, Education and Law, it is significant at .05 level.

Another way of examining the Hypothesis is to institute inter-Faculty-wise comparisons and to find out between what Faculties the differences in mean scores on 'Custodial' as well as 'Humanistic' student control ideology are true and

significant. Table 4.30 presents the results of t-tests applied to mean scores of different paired Faculties on these two dimensions of the tool SCI.

Table :4.30: Results of t-tests on Significance of Differences in Mean Scores on Custodial and Humanistic Ideology of Teachers of Different Faculties

Comparison between Pairs	Control Ideology	
	Custodial	Humanistic
Arts - Science	2.43 *	1.86
Arts - Commerce	3.32 **	2.59 *
Arts - Education	0.45	0.31
Arts - Law	1.50	0.73
Arts - Engineering	0.96	2.31 *
Science - Commerce	0.82	0.96
Science - Education	2.17 *	1.18
Science - Law	0.12	0.24
Science - Engineering	1.86	2.67 *
Commerce- Education	2.79 **	1.58
Commerce - Law	0.35	0.73
Commerce - Engineering	2.17 *	2.35*
Education- Law	1.31	0.50
Education- Engineering	0.64	0.78
Law - Engineering	1.08	1.21

* Significant at .05 level

** Significant at .01 level

Taking first the Custodial ideology for consideration, the t-values are significant in the case of the Faculties of Arts-Science, Science-Education and Commerce-Engineering at

.05 level and at .01 level in the case of Faculties of Arts-Commerce and Commerce and Education. The differences in mean scores on this dimension between the Faculties of Arts and Education, Arts and Law, Arts and Engineering, Science and Commerce, Science and Law, Science and Engineering, Commerce and Law, Education and Law, Education and Engineering and Law and Engineering are not significant. That is to say, teachers of certain Faculties differ significantly and positively in their custodial ideology whereas in a number of Faculties, the difference is not true - it may be a chance affair. Why such a thing happens needs to be further investigated through a planned research.

As regards the humanistic ideology, the significant variations are found in a fewer number of Faculties. For instance, differences in mean scores of teachers on this dimension of student control ideology are found significantly only in the case of Faculties of Arts-Commerce, Arts-Engineering, Science-Engineering and Commerce-Engineering. In these four paired Faculties, the differences in mean perceptions of humanistic ideology of college teachers are significant at .05 level. In other paired Faculties, whatever differences are found in mean perceptions of teachers are only by chance. Therefore, the present Hypothesis, when examined by pairing them with one another, is only partially substantiated.

Tables 4.31, 4.32 and 4.33, show that even if the zone, the city-town situation and the size of the colleges vary, the ideology of the teachers is not significantly affected i.e. the ideology of the teachers does not differ with the impact of these variables. This is because the results of t-tests with regard to any of these variables are not found to be significant.

Table :4.31: t-test Values on Two Dimensions of Student-Control Ideology according to the Variable of Zones

Comparison Between Pairs	Student Control Ideology	
	Custodial	Humanistic
Central-South	0.94 NS	0.42 NS
Central-North	1.74 NS	1.25 NS
South-North	0.96 NS	1.12 NS

Table :4.32: t-test Values on Two Dimensions of Student-Control Ideology according to Variables of City-Town Location

Comparison Between Pairs	Student Control Ideology	
	Custodial	Humanistic
City-Town	1.4 NS	0.98 NS

Table :4.33: t-Test Values on Two Dimensions of Student Control Ideology according to the Variable of Size

Comparison Between Pairs	Student Control Ideology	
	Custodial	Humanistic
Large-Small	1.12 NS	1.22 NS

Therefore, at the best, it may be observed that the Hypothesis X is partially, that is, in some parts, substantiated.

4.12 The Student Control Ideology of Teachers in Three Climate Category Colleges

Halpin (1966:207) concluded that the chief consequence of his study of the organizational climate of schools was the vital importance of authenticity in organizational behaviour. The distinguishing feature of the Open Climate is the authenticity of interpersonal relations among teachers and between the principal and teachers. The concept of authenticity is better compatible with a humanistic student control orientation as the interactions among and between teachers are authentic in Open Climate institutions. Closed Climate is characterised by authenticity of the reaction patterns among teachers and of principal with teachers. Therefore, teachers are likely to manifest Custodial ideology of student control in institutions having Closed climate. This is broadly the rationale for formulating Hypothesis which is worded as under :

> Teachers of colleges possessing Open Climate will be significantly humanistic in student control ideology while those of colleges having closed climate will be significantly Custodial.' (The Hypothesis XI)

The procedure for identifying institutional climate for colleges was described and discussed earlier. Following the same procedure, 34 colleges were identified as possessing Open Climate and 29 colleges as possessing Closed Climate. In order to test the hypothesis the SCI mean scores of the Open Climate colleges and the Closed Climate colleges were computed. Analysis of variance was done which yielded an F-ratio. The results are presented in Table 4.34 given below :

Table :4.34: Summary Data and Analysis of Variance Data for the Relationship Between Institutional Climate and Student Control Ideology of the Colleges

	Open Climate Colleges	Closed Climate Colleges
Number	34	29
Mean Sci Scores	22.74	35.40

Source	df	SS	MS (V)	F
Between Groups	5	2405.50	481.10	4.81
Within Groups	6	603.50	100.58	
Total	11	3009.00	581.68	

4.57 = Significant at .01 level
2.87 = Significant at .05 level

The results show that the mean SCI scores in Open Climate colleges are smaller than they are in Closed Climate colleges. Smaller scores in Open Climate, as shown by Willower et al. (1967:22-23) and Appeleberry and Hoy (1969:80-81) denote

humanistic orientation of teachers with regard to their Control ideology and higher scores in Closed Climate colleges denote custodial orientation of teachers.

The Hypothesis XII is, therefore, sustained.

4.13 Interrelationship among College Climate, Staff Morale and Student Control Ideology of The Teachers

The discussions in the preceding sections raise the possibility of inter-relationship existing among the college climate, staff morale and the student control ideology of the teachers of the colleges affiliated to the Gujarat University. Previous researches, both Western and Indian, have yielded such results in the case of variables of climate and morale. Very little research seems to have been attempted to establish relationship between climate and control ideology. Only recently, Kirit Gandhi (1977) found that Humanistic control ideology is relatively more related to Open Climate and Custodial ideology is relatively more related to Closed climate. Willower et al. (1967) has found that the Open minded teacher had lower PCI mean score (50.8) than closed minded teacher whose PCI mean scores were 46.3.

The Hypothesis formulated in this respect is as under :

'Institutional climate, teacher morale and student control ideology of the sampled colleges are inter-related. (The Hypothesis XIII).

According to the above Hypothesis, there must be positive and significant relationship among the variables of institutional climate, teacher morale and student control ideology of the teachers of the sampled 122 colleges of the Gujarat University. This would mean that in the colleges with Open climate, the morale of the teachers would be high and the student control ideology will have humanistic orientation to a greater extent; in the colleges with closed climate the morale of the teachers would be low and the teachers' control ideology would have custodial orientation to a greater extent.

The following table 4.35 presents the relevant data on these aspects of the Hypothesis

Table :4.35: Inter-relatedness among Climate Types , Morale Levels and Control Ideology Dimensions

Climate (1)	Morale Category			Climate & Ideology Type	
	High	Average (1 and 2)	Low	Humanistic (1 and 3)	Custodial
Open	73.5 (25)	26.5 (9)	-	61.7 (21)	38.2 (13)
Intermediate	32.2 (19)	55.9 (33)	11.9 (7)	50.8 (30)	49.1 (29)
Closed	3.4 (1)	72.5 (21)	24.1 (7)	41.3 (12)	58.6 (17)

df = 4 Chi-square 59 Significant at .01 level

df=2 Chi-square = 1.38 Significant at .50 level

Note: Figures in parentheses are the number of Colleges.

INTERRELATEDNESS AMONG CLIMATE TYPES, MORALE LEVELS AND CONTROL IDEOLOGY

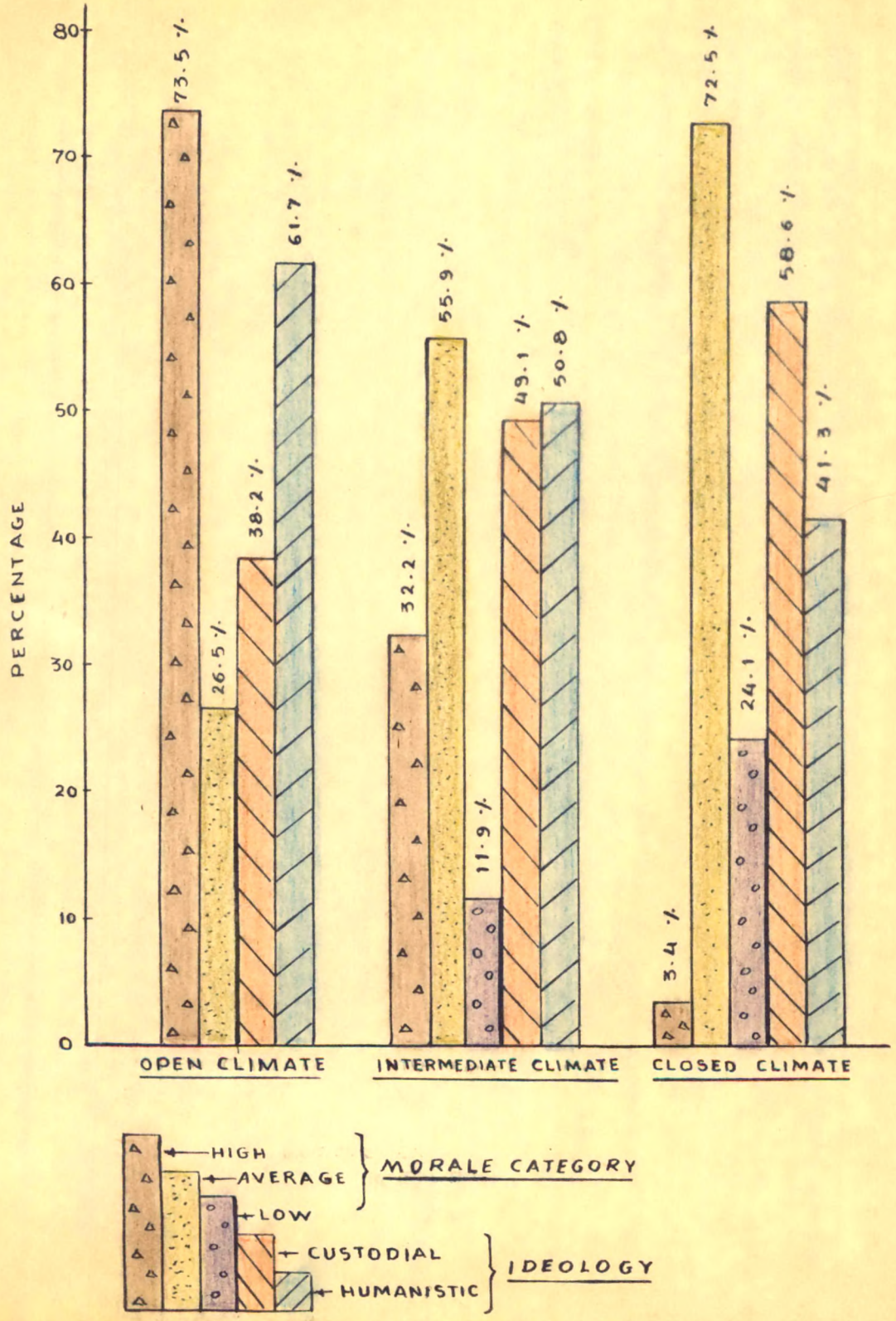


FIG. 15

Looking to the table, it is clearly seen that in the colleges with Open Climate, majority of the teachers possess high morale (73.5 percent) and also the ideology of the majority is humanistic (61.7 percent). In the colleges with Closed climate, the majority of the teachers possess average morale and majority manifest custodial ideology. Therefore, it can be observed that in the Gujarat University where the affiliated colleges have Open Climate, the morale of the teachers is high and the control ideology is humanistic. In the closed climate colleges the morale of the teachers is average but not low and ideology custodial.

Table :4.36: Interrelationship Between Morale and Control Ideology

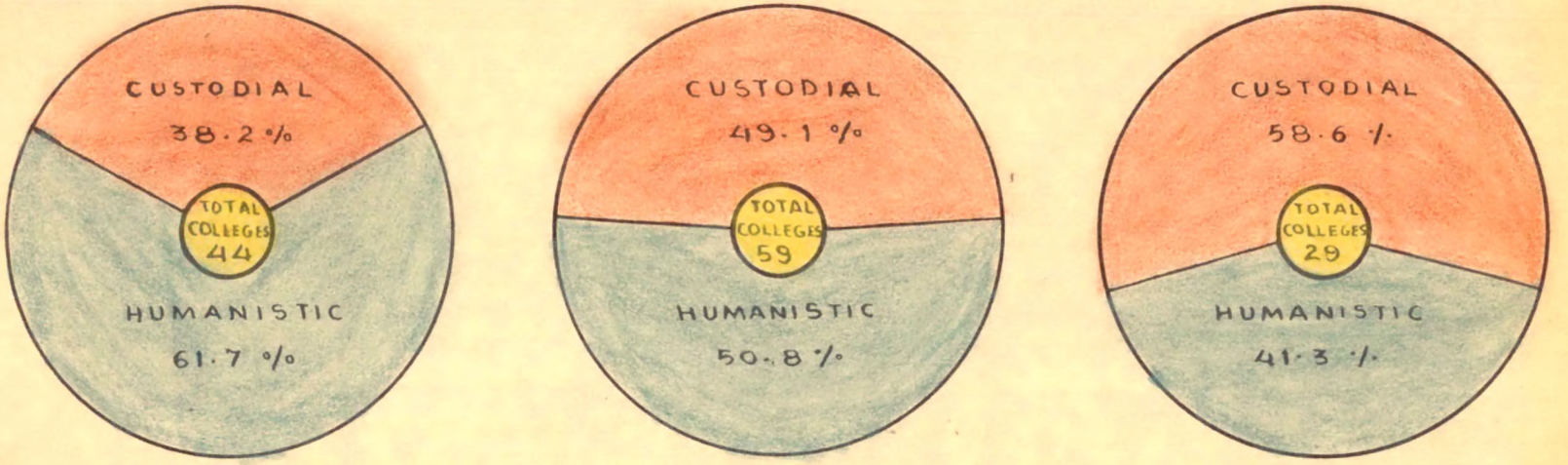
Morale Category	Humanistic	Custodial
High	61.7 (21)	38.2 (13)
Average	50.8 (30)	49.1 (29)
Low	41.3 (12)	58.6 (17)

df = 2 Chi-square = 4.16 Significant at .20 level

Note : Figures in parentheses indicate the number of cases of colleges

The chi-square value with regard to climate - morale relationship is 59.97 which is significant at .01 level;

IDEOLOGY



MORALE CATEGORY

FIG. 16

INTERRELATIONSHIP BETWEEN MORALE AND IDEOLOGY

the chi-square value with regard to climate-control ideology is 1.38 which is significant at .50 level and the corresponding chi-square value with regard to morale category and control ideology category is 4.16, with X C = .31 which is significant at .20 level.

The Hypothesis XII is, thus, upheld.

4.14 Prediction of Climate by Regression Equation

To study the institutional climate in relation to various dimensions of the ICDQ (Baroda Form), the CTMO (Baroda Form) and the SCI, three Multiple Regression Analyses were employed. The first Regression Equation is based upon climate score as criterion variable and various dimensions of the climate as predictors.

The Second Regression equation comprises of climate score as criterion variable and the factors of the College Teacher Morale Opinionaire and the Student Control Ideology as predictors.

The Third Regression Equation is based on climate score as criterion variable and the twenty three dimensions of the Institutional Climate Description Questionnaire, the College Teacher Morale Opinionaire and the Student Control Ideology as predictors.

Thus, in all the three Regression Equations, the climate is the criterion variable and is predicted by the dimension

score on the ICDQ, the CTMO and the SCI.

The results are given in the following tables.

Table :4.37: Regression Equation Between the Twelve Dimensions of the ICDQ - the Predictors - and the Climate Score - the Criterion Variable

$\bar{Y}$ =	$-10.898 - 0.093 X_1 - 0.115 X_2 + 0.158 X_3 + 0.118 X_4 - 0.032 X_5 - 0.092 X_6 + 0.133 X_7 + 0.212 X_8 + 0.169 X_9 + 0.145 X_{10} + 0.114 X_{11} + 0.161 X_{12}$
R^2 =	0.9371
R =	0.966 **
d_3 =	109

In the above table :

$\bar{Y}$ = Climate score

Dimensions of the ICDQ

X_1 = Disengagement
X_2 = Hindrance
X_3 = Esprit
X_4 = Intimacy
X_5 = Aloofness
X_6 = Production Emphasis
X_7 = Thrust
X_8 = Consideration
X_9 = Organizational Structure
X_{10} = Human Relations
X_{11} = Communication
X_{12} = Decentralized democratization-Freedom

Table 4.37 shows predictor variables 'Esprit','Intimacy', 'Thrust', 'Consideration', 'Organizational Structure', 'Human Relations', 'Communication' and 'Decentralized Democratization-Freedom' have positive Beta coefficient to the extent of 0.158, 0.118, 0.133, 0.212, 0.169, 0.145, 0.114 and 0.161 respectively. The remaining predictor variables - the 'Disengagement', 'Hindrance', 'Aloofness' and 'Production Emphasis', the first, second, fifth and sixth dimensions of ICDQ have negatively contributed to the criterion variables. This contribution in terms of Beta weights is 0.093, 0.115, 0.032, 0.092 respectively.

These predictor variables have contributed to the criterion variable to the extent of 93.71 percent of the common variance.

The multiple correlation coefficient between the 12 predictors i.e. the 12 dimensions of Institutional Climate Description Questionnaire on one hand and one criterion variable i.e. climate score on other hand is .966 which is significant at .01 level for df 109.

From Table 4.38 on the next page, it can be seen that the predictor variables viz. 'Conditions of work', 'Relations', 'Administration', 'Security', 'Cohesion' had a positive Beta coefficients to the extent of 0.294, 0.754, 0.480, 0.207 and 0.195 respectively. These predictor variables shared 60.54 percent of the common variance in the criterion variable i.e. stanine score on ICDQ.

Table :4.38: Regression Equation based Upon the Climate Score as Criterion Variable and Different Factors of College Teacher Morale Opinionaire and Student Control Ideology

---

$$\bar{Y} = 9.002 - 0.293 X_1 + 0.294 X_2 + 0.754 X_3 - 0.332 X_4 + 0.480 X_5 + 0.207 X_6 - 0.138 X_7 + 0.195 X_8 - 0.345 X_9 - 0.280 X_{10}$$

R^2 = 0.6054

R = 0.777 **

df = 111

In the above table :

$\bar{Y}$ = Climate Score

Factors of CTMO

X_1 = Teacher welfare
X_2 = Conditions of work
X_3 = Relations
X_4 = Job satisfaction
X_5 = Administration
X_6 = Security
X_7 = Need Satisfaction
X_8 = Cohesion

Factors of the SCI

X_9 = Custodial Ideology
X_{10} = Humanistic Ideology

The first, fourth and seventh factors i.e. 'Teacher welfare', 'Job Satisfaction' and 'Need Satisfaction' of the College Teacher Morale Opinionaire and Custodial Ideology and 'Humanistic Ideology' of the Student Control Ideology have contributed negatively to the climate score on Institutional Climate Description Questionnaire. This contribution in terms of Beta weights is 0.293, 0.332, 0.138, 0.345 and 0.280 respectively.

The multiple correlation coefficient between 10 predictors on one hand and one criterion variable on other hand is 0.777 which is significant at .01 level for df 111.

Table :4.39: Regression Equation Between the Dimensions of ICDQ, Factors of CTMO and SCI - 23 Predictors and the Climate score - the Criterian Variable

$$\bar{Y} = -17.04 - 0.083 X_1 - 0.112 X_2 + 0.163 X_3 + 0.102 X_4 - 0.038 X_5 - 0.093 X_6 + 0.130 X_7 + 0.194 X_8 + 0.175 X_9 + 0.131 X_{10} + 0.113 X_{11} + 0.141 X_{12} - 0.006 X_{13} - 0.060 X_{14} + 0.254 X_{15} - 0.024 X_{16} - 0.013 X_{17} + 0.024 X_{18} + 0.028 X_{19} + 0.070 X_{20} + 0.006 X_{21} + 0.041 X_{22}$$

$R^2 = 0.0433$

$R = 0.971$ **

$df = 99$

In the above table :

$\bar{Y}$ = Climate score

X_1 to X_{12} = Twelve dimensions of ICDQ shown in Table 4.34

X_{13} to X_{20} = Eight factors of CTMO shown in Table 4.35

X_{21} to X_{22} = Two types of Ideology

The Table 4.39 indicates the predictor variables 'esprit', 'Intimacy', 'Thrust', 'Consideration', 'Organizational Structure', 'Human Relations', 'Communication' and 'Decentralized democratization-Freedom' of ICDQ and 'Relations', 'Security', 'Need Satisfaction', 'Cohesion' of CTMO and 'Custodial Ideology' and 'Humanistic Ideology' of SCI have positive Beta coefficient to the extent of 0.163, 0.102, 0.130, 0.184, 0.175, 0.131, 0.113, 0.141, 0.254, 0.024, 0.038, 0.070, 0.006 and 0.041 respectively. The remaining predictors, namely, 'Disengagement', 'Hindrance', 'Aloofness', 'Production Emphasis' (the first, second, fifth, and sixth dimensions of the Institutional Climate Description Questionnaire), 'Teacher Welfare', 'Conditions of work', 'Job Satisfaction', 'Administration', (the first, second, fourth and fifth factors of the College Teacher Morale Opinionaire) have negatively contributed to the criterion variable i.e. the climate score. This contribution of Beta weights is 0.083, 0.112, 0.038, 0.093, 0.006, 0.060, 0.024 and 0.013 respectively.

These predictor variables have contributed to the criterion variable to the extent of 94.33 percent of the common variance.

The multiple correlation coefficient between the 22 predictor variables i.e. 12 dimensions of ICDQ, 8 factors of CTMO and 2 factors of SCI on one hand and one criterion variable i.e. climate score on other hand is .971, which is significant at .01 level for df 99.

4.15 Conclusion

This concludes the analysis and interpretation of the data yielded by the research instruments, viz. 'Institutional Climate Description Questionnaire', the 'College Teacher Morale Opinionaire', both newly constructed tools, and the 'Student Control Ideology' used with minor verbal changes to suit the higher education scene in Gujarat University. The discussion veered round testing Hypotheses which numbered twelve. These Hypotheses have relevance with research objectives and the major focal points selected to be included in the study. A variety of statistical techniques ranging from simple percentages to complex multiple correlation and regression equations was used. The trends in climate, teacher morale and student control ideology that have emerged from this study about the affiliated colleges

should give food for thoughts to both college administration and university administration to determine the directions and dimensions of changes that need to be effected in the college system so that more viable results could be expected in terms of student-teacher motivation, achievement index and continuous upgrading of those inputs which contribute towards the upgrading of college and university quality or standards. In this context, the investigator would venture to make some suggestions based on the findings of this research.
