REVIEW OF RELATED STUDIES

Fairly exhaustive reviews of studies related to social climate in groups have been covered by Cartwright and Zander (1968), Lindzey (1954), Henry (1960), Charters and Gage (1963), Bany and Johnson (1964), Hare et al (1966), and Lindzey and Aronson (1969). Nevertheless, a brief review has been attempted here with a view to focus on such studies which have direct or indirect bearing on the problem, and to provide a broad and general context of the research reported here. However, these studies do not constitute a vital or specific link with the present research in view of characteristic differences of social milieu and of personality patterns.

A number of influences from other disciplines seem to have converged to stimulate the study of social climate of educational groups. One almost forgotten source of influence has arisen from the work of Dorothy S. Thomas, who as early as 1929, initiated the study of social interaction and formation of groups among nursery school children (Midley and Mitzel, 1963, p. 263). A second source came from the introduction of sociometric techniques with the publication in 1934 of Moreno's Who Shall Survive? A third kind of influence resulted from the work in mental hygiene, child development and education, by Prescott (1938)

and others; and from subsequent studies showing the effect of knowledge of children's attitudes and emotional problems on the teacher's effectiveness (Ojemann and Wilkinson, 1939). A fourth, although less direct yet unquestionable influence, emerged from the work of Roethlisberger and Dickson (1939) demonstrating the effect of group climate on industrial productivity. A fifth was due to the introduction of Rogerian nondirective counseling which as Stern (1963, p. 426) says, "appeared to offer a point of departure for classroom instruction supported by psychological theory, educational practice, and ethical belief". The sixth, and by far the most potent influence, resulted from the work in group dynamics, and especially, the study by Lewin, Lippitt, and White (1939) on the different behaviours of children in differing social climates. Such studies had an enormous impact on educational practice and inquiry.

Lewin, Lippitt, and White (1939) examined the effect of three leadership roles and the consequent group climates by observing the behaviour of four "clubs" of five 10-or 11- year-old boys each under three leadership conditions: "democratic", "autocratic" ("authoritarian"), and "laissez-faire". Groups were matched to control for individual differences, and leaders were rotated to control for treatment variations. Records were kept of relevant behaviour, including the interaction within the group,

between the leader and individual boys, the expression of aggression, and productivity in club projects. One observation stood out above all others. The social climates resulting from the different leader styles produced significant differences, which can be briefly summarised as (i) aggressive behaviour was either very high or very low under authoritarian conditions, extremely high under laissez-faire conditions, and intermediate under democratic conditions; and (ii) productive behaviour was higher than or as high in authoritarian climates when the leader was present as in democratic climates but much lower when the leader was absent, moderately high and independent of the leader's presence or absence in the democratic climates, and lowest in the laissez-faire climates.

A major limitation of Lewin's study - a limitation that was to persist in a series of work derived from it was that the authoritarian leader seemed not only to have been "directive" but also "unfriendly". Though the authoritarian pattern was not intended to be personally disagreeable, as performed experimentally, it manifested a personal harshness that need not necessarily accompany autocratic rule (Wallen and Travers, 1963, p. 476). Despite this limitation, the theoretical and applied issues raised by the study of Lewin et al led to a fruitful body of work reexamining the nature of interaction in educational groups

in general, and the classroom in particular. A notable series of studies was undertaken by Thelen and his associates (Thelen, 1950, 1951; Thelen and Withall, 1949). Withall (1949) developed a 'Climate Index' involving the transcription and analysis of the verbal behaviour of teachers into seven categories, further divisible into two classes: learner - supportive or - centered and teacher - supportive or - centered statements. If more teacher statements were of the first kind, the classroom climate was said to be "learner - centered"; if of the second, the climate was said to be "teacher-centered". Significant relationships were found between the Climate Index and other measures of group process, pupil reactions, expert ratings, and styles of problem solving activity (Withall, 1949; Thelen and Withall, 1949; Flanders, 1949). The work of H.H. Anderson and his associates on "dominative" and "integrative" teaching styles, the one producing aggressive behaviour in the classroom, the other cooperative and self-directed behaviour, had come before this. Instruments for categorising interaction and studies of classroom climate have been reported on such functions as "positive and negative affectivity" by Hughes (1959) and on "direct and indirect teacher influence" by Flanders (1960). Whether the dimensions of classroom interaction dealt with in these studies are called

"authoritarian - democratic", "teacher-centered-student-centered", "dominative-integrative", or "direct - indirect influence", there is little question that they refer to similar phenomena, and the phenomena are of importance in educational theory and practice (Medley and Mitzel, 1963, p. 274), though not so simple or decisive as some would maintain (Anderson, 1959).

In the sixties, the investigators started exploring the environmental characteristics of educational institutions that foster growth and development of human beings. The earlier attempts in this direction were devoted to the development of instruments for measuring different aspects of institutional environment, and a number of environmental measures were reported. Pace (1963) developed a measure for the University or College Campus Climate, popularly known as the College and University Environment Scales or CUES. Stern (1960, 1961, 1963, and 1970) developed a number of indices to measure college and other institutional environments. The well known among these are the High School Characteristics Index, The Activities Index, and The College Characteristics Index. Astin and Holland (1961) reported the Environmental Assessment Technique to measure college environment in terms of characteristics of the student body. Hutchins (1962) devised the Medical College Environmental

Scales to measure the environment of medical colleges. Halpin and Croft (1963) constructed an Organizational Climate Description Questionnaire to measure school climate in terms of the hierarchical and collegial relations among the school principal and school teachers. The Transactional Analysis of Personality and Environment was evolved by Pervin (1967). Deshpande et al (1970) reported an environmental scale based on teacher behaviours. Anderson (1970) constructed the Learning Environment Inventory to measure classroom climate along 14 dimensions, and the Pupil Activity Inventory to study the frequency with which pupils engage in science related activities.

These instruments encouraged researchers to study the environmental characteristics of educational institutions and their impact on student behaviour, and a number of studies were reported in the area.

A majority of these investigations were directed towards the study of school or college environments. Studies relating to the influence of environment on the achievement of students started with a design for identifying the characteristics of educational institutions which produced students, who later on, earned scholarly recognition or some other distinctions. The best known among these studies is that of Knapp and Goodrich (1952) in which colleges were compared with respect to their output in terms of alumni who

later earned the Ph.D. degrees. Others who have reported studies conforming to this strategy include Kunkel and Prentice (1939), Kunkel (1941), Visher (1947), Taxler (1957), Thistlethwaite (1959, 1959a), Astin (1961, 1962, 1965), Nichols (1965), Astin and Panos (1966), and Skager, Holland and Braskamp (1966). One major shortcoming of these studies has been the lack of comparability of the entering abilities of the students. The observed differences among the productivity of students may not reflect the influence of the environment of the institution, and may be due to the nature of students who join that particular college. Recently, attempts have been made to control or match students on their entering abilities to examine the differential effect of environments on the abilities. McDill et al (1967) assessed the influence of different pedagogical and social dimensions of school environment on achievement of students controlling the relevant personal variables. Findings revealed that the effect of the socio-economic context of the school on student achievement tended to disappear when personal variables were controlled. With school's socio-economic context and personal attributes of students held constant, the various dimensions of school environment showed significant effect on students' performance. Gottheil et al (1968) in their study on medical students using Stern's College Characteristics Index (1961) and ratings by teachers on

students' behaviour towards the patients, found that 28 out of 30 CCI Scales were significantly related to the ratings of students' behaviour toward their patients. Students who perceived the College as having characteristics such as encouraging, understanding, reflectiveness ambition, sociopolitical participation, emotional expression, spontaniety, aesthetic appreciation, risk-taking, non-conformity, and reliance on others, were rated as having a high regard for their patients and being sensitive to their needs. Hinton (1968) in a study of the effect of environmental frustration on creative problem - solving concluded that the environmental frustration significantly reduced creative problem solving.

Walberg and Anderson (1968) conducted a series of studies on high school students to show that measures of student perception of classroom climate, obtained at midyear, predicted gains in cognitive, affective, and behavioural learning criteria during the year. Sharma (1969) used sub-tests of Halpin and Croft Organizational Climate Description Questionnaire (Halpin, 1966, p. 148-150) as measures of various dimensions of social climate in school and found moderate to high correlations between students' achievement and social climate dimensions. Using the Learning Environment Inventory (LEI), Anderson (1970) found that the factor of Intimacy is positively related to scores

on Test of Understanding Science for girls of high ability, and negatively, for girls of low ability. Intimacy indicates anormative behaviour system developed in girls which affects their achievement. The Environment Scale of the LEI showed positive relationship with Physics Achievement Test and Test of Understanding Science for males. The Favouritism scale showed a negative relationship with learning as measured by the Science Process Inventory. No relationship was found between satisfaction and learning, while scores on Disorganization were positively related to scores on Physics Achievement Test for males. Kubiniec (1970) investigated the relationship between students' achievement and the phenomenal-self as well as phenomenal-environment perception of students. He concluded that academic success in college can be predicted by measures of global perceptions of one's self and one's environment. Kubiniec treated the perception of environment as a part of self-perception. Perhaps this falls in line with the personality-environment or need-press interaction outlook started by Stern. Other recent studies in this are include Astin (1963c), Andrews (1967), Kallick (1967), Meyers (1967), Spuhler (1967), Voss (1967), Anderson and Walberg (1968), Haefer (1968), Kraimer et al (1968), Walberg (1968, 1969, 1969a, 1969b, 1970), Adler (1969), Anderson, Walberg and Welch (1969), Anderson (1970), and Reiner (1970).

Attempts have been made to examine whether different institutional climates have differential effects on student personalities, and whether the personalities of students play any role in their perception and interpretation of the environment. Peyre (1967) maintained that adjustment problems of students are associated with those of the institution itself. King et al (1968) in a carefully designed surgical internship programme delegating freedom and responsibility to students, found that they differed with the control groups favourably on a few dimensions of the Medical School Environment Inventory by Hutchins (1962). Many of them changed their career choices as a result of this programme and gave up the plan of a solopractice career. A significant increase in the incidence of expected commitment to surgical careers was observed. Walberg and Ahlgren (1970) have shown that the classroom climate can be predicted from a number of antecedent and concurrent variables like student personality measures, student scores on cognitive and non-cognitive pre-tests, students' biographical characteristics, the course text, the teacher's experience with the course, and the class size. Eight canonical variables from these several sets of predictors were significantly related to the environment scores; in addition, I.Q. and the fraction of girls in the class were found to be significant predictors of

environment. Mitchell (1968) found that perceptions of the environment are related to personality characteristics, particularly the trait of conformity. Duling (1969) used the College and University Environment Scale, developed by Pace (1963), on college students. Results showed that women perceived the college as more group-centered, conforming, and cooperative than did the men; married students rated the college higher than single students on awareness, propriety, and scholarship; sorority and paternity members saw their environment as more practical and group-oriented than did non-members; and transfer-students considered the college to be higher scholastically than did the native students.

Other investigators who worked on this aspect of environmental studies include Eddy (1959), Hutchins (1962), Astin (1964, 1965), Nichols (1965), Thistlethwaite (1965), Gurin and Katz (1966), Thistlethwaite and Wheeler (1966), Brown (1967), Jambura (1967), McCormick (1967), Eberlein (1968), Haefer (1968), Yonge (1968), Feldman and Newcomb (1969), and Margulies (1969).

Some attempts have been made to measure the satisfaction of students with the environment. Two recent studies worth noting in this area are by Pervin (1967) and Berdie et al (1970). Pervin investigated the relationship between perceived self-environment similarity and satisfaction with

the environment of college students using the Transactional Analysis of Personality and Environment (TAPE). The perceived self-college similarity was found to be related to ratings of satisfaction with the college environment. Berdie and associates' study suggest that, to a large extent, satisfaction is being formed or developed while the student progresses through college, and frustrations resulting from delay, poor grades or failures or inability to register for or complete courses affect satisfaction. Results indicate that the extent of student satisfaction is dependent on students' own personal history and personality, the facility with which he obtains his academic objectives, and the services which the university makes available to him.

Besides the achievement, personality and satisfaction variables, studies have been attempted to classify institutions on the basis of environmental scales or certain other characteristics such as seeing the kinds of students the institutions with different profiles attract, the attrition rates in these institutions, and so on.

Hutchins (1965) in his analysis of the attrition rates in medical schools found that attrition rates were high in tax-supported schools rather than in private institutions. Low attrition-rate-schools had shown

significantly greater total expenditure than high-attrition schools; emphasize research, have a larger number of research dollars per faculty member; accept a high proportion of students from outside their state; and possess environments for learning which intrinsically motivate students with high scholastic aptitudes, high need achievement, low need for deferent behaviour, and high aesthetic and religious values. High-attrition schools were producing a significantly larger proportion of students interested in general and straight speciality practice as opposed to careers having affiliation with academic medicine.

Nichols (1966) has presented evidence to suggest that institutions with different profiles, based on the College and University Environment Scales (CUES), attract applicants of different ability. He found high positive correlations between the scholarship score of CUES and student ability.

Peterson (1966) used the Protest Scales and found that the proportion of Ph.D.s on the faculty was significantly and positively related to protest over campus issues.

Other investigators who conducted studies on these lines include Pace and Stern (1958), Boroff (1962), Astin (1963), Newman (1963), Wolins (1963), Boyer and Michael (1965), Herr (1965), Hutchins and Nonneman (1965),

Kaspher et al (1965), Richards et al (1966 and 1968), Berremen (1967), Keniston (1967), Maclean (1967), Martin (1967), Minzey (1967), Moos (1967), Webb (1967), Dunn (1968), Harvey et al (1968), Mitchell (1968), Sharma (1968), Altbach (1969), Chickering (1969 and 1969a), Duling (1969), and Deshpande (1970). Some of these studies simply demonstrate the existence of differences in environments of the institutions while some others relate such differences to variables like student achievement, student stress, and campus problems.

The above review suggests that the nature of institutional environment has notable influence on the gestalt the student carries with him. It also indicates that lot of work has been done to understand the college and university systems and their impact on the student, but the study of structure and operation of school system has been relatively ignored so far. As also pointed out by Bidwell (1965) and Getzels (1969), there seems to be no authoritative published work available in the area, especially on the hierarchical and collegial relations among the superintendent and principal, and principal and teacher, as well as the impact of these relations on the student. A few discrete studies of superintendent—school board and of principal—teacher relations have been reported recently but these were,

by and large, concerned with the formal and informal structures of the school and the administrative interactions, and rarely did they touch on the relation of these observations to differential educational output (Halpin, 1956 and 1966; Gross, Mason and McEachern, 1958; Carlson, 1961; and Sharma, 1969).

The present study was undertaken to bridge this gap to a limited extent. It concerned itself with the nature of impact that the social interaction between the principal and teachers in a school system may have on student behaviour.