

CHAPTER IIREVIEW OF RELATED STUDIESINTRODUCTION

This chapter is concerned with the review of studies related to the major aspects of this investigation. This study makes use of data concerning 'personal values' and 'teacher attitudes' as measured by 'study of values' and 'MPAI' respectively. 'Personal Values' and 'Teacher Attitudes' being the two major aspects of the study, they provided the criteria for choosing the studies to be reviewed. A critical examination of the studies reviewed has given some insights into the problem that to some extent helped the investigator in formulating a theoretical framework for the study. It has also

provided a rich and varied background against which the data of the study can be interpreted meaningfully. As a limitation, it should be noted that this review cannot claim an extensive coverage of the vast literature on personal values and teacher attitudes in sufficient detail.

Based on the aspect which the study covers, the bulk of the studies reviewed are presented under two sections. The first section deals with studies pertaining to personal values and the second deals with studies related to teacher attitudes.

2.1 REVIEW OF STUDIES ON VALUES

In this section of the chapter only those investigations, where 'study of values' or its modifications had been used to collect data on values are reviewed. Studies on values where other instruments - Inventory of Values (Eswell, 1954); Survey of Interpersonal Values (Gordon, 1960); Personal Value Scales (Scott, 1965); Dimensions of Values (Withey, 1965); Value Survey (Rokeach, 1968); Value Profile (Bales and Couch, 1969); etc.-had been used for measurement, are excluded, as they are considered beyond the scope of this review. It should also be noted that some large scale interdisciplinary studies on value in other social sciences (Benne and Swanson, 1950; Kluckhohn, 1951; Dahlke, 1958) are not included in this review,

even though they provide stimulating background for researchers studying values.

This section of the review will consequently remain oriented towards the findings of studies that helped in

- (1) understanding the nature of value system of groups and its relation to other data concerning the group;
- (2) ascertaining the influence of values on one's behavioural or other personality aspects; and
- (3) pointing out the extent of similarity or difference in values between groups differing in psychological, social or cultural characteristics.

A few studies concerning the nature of the tool is presented first. Following it, variable-wise presentation of studies is attempted.

2.1.1 STUDIES RELATED TO THE DIMENSIONS OF THE TEST - STUDY OF VALUES

A factorial study of 'Spranger's Value types' was reported by Lurie (1937). The four main factors isolated in the study were: (1) Social and altruistic type - a factor connected to human relationships, (2) Philistine type - a factor related to Spranger's economic and political man - aggressive, go-getting, utilitarian and anti-cultural,

(3) theoretical type - a factor related to scientific interest, and (4) religious - a factor more closely connected with doctrine and practice of religion than the mystical unity implied in religion. In an analysis of the inter-correlations of six value scores Duffy and Crissy (1940) also arrived at similar results. Another study conducted by Coats (1950) using independent scales for measuring values, indicated the relatively independent existence of these four types. Findings of these studies showed that the economic and political values were not separate and distinct. The aesthetic value was somewhat positively related to the theoretical and inversely related to the economic and political. Similarly, the religious value included anti-philistine and anti-theoretical interests. The inter-correlations between six value scores obtained by Moshin (1950) also lend a general support to the above reported findings. In this study economic and political value scores had shown significant positive correlation. Aesthetic value was found significantly and negatively correlated to economic and political values. Similarly, religious value had shown significant negative correlation with theoretical, economic and political values indicating an anti-theoretical and anti-philistine factor. A significant negative correlation was noted between theoretical and social values. These findings give an idea about the nature of data one obtains by using 'study of values'.

Cartton (1980) made an attempt to study the relationship between the 'Study of Values' test and the 'Thomas Differential Value Profile'. Both the tests were developed based on Spranger's classification. The six value areas of differential value profile were labelled as intellectual, material, aesthetic, humanitarian, power and religious corresponding to theoretical, economic, aesthetic, social, political and religious scales of study of values. In this canonical analysis of the relationship, highest loading on each root linked four of the six corresponding value scales- aesthetic to aesthetic, political to power, theoretical to intellectual and social to humanitarian. The two remaining value scales - religious to religious, and economic to material - were found as the second highest loading variables on separate roots. This indicated a significant and substantive relationship between these two tests of value measurement.

2.1.2 VALUES RELATED TO SEX

The original finding (Vernon and Allport, 1931) that men score higher than women on theoretical, economic and political values but lower on the aesthetic, religious and social values has been repeatedly verified. (Cantril and Allport, 1933; Hartman, 1934; Triplett, 1935; Sporel, 1952; Reddy and Parameswaran, 1966; Goodwin, 1973). A good number of other studies has provided partial verification of the above

finding. Moshin (1950) reported significant difference between mean scores of men and women on theoretical, economic, aesthetic and social value scales. On theoretical and economic scales men scored higher than women and on aesthetic and social scales women excelled men by scoring more. Beldose (1955), in a comparative study of values and critical thinking skills of a group of educational workers, found that women scored 'substantially higher' than men on aesthetic value. This was the only significant difference observed while comparing the values of male and female subgroups of the sample. (Nobechi (1957) compared the data on values from Japanese university students and public nurses with that of U.S. standardization group and found that females scored higher on religious and lower on economic and theoretical value scales than males irrespective of national differences.) (Rodd (1959) also obtained the same results in a cross-cultural comparison of male and female values of Taiwanese, Japanese and Americans. In all the three societies females obtained higher means for the religious and lower means for economic and religious values than what obtained by males. Findings of a comparative study of boys and girls by Tyagi (1961) indicated significant difference between boys and girls with regard to theoretical, political, social and aesthetic values. Boys were higher in the first two values while girls were higher in the rest. Data provided by Evans (1967) showed that women's scores exceeded those of men

significantly in social and aesthetic values, while those of men were significantly greater in economic and political values than that of women. Tandon (1967) studied the values of boys and girls using value scale developed in line with study of values and reported that girls were more favourable to religion than boys. In another study (Dixit and Sharma, 1969), it was found that male and female teachers significantly differed only in religious value, while girls and boys of the student sample of the same study showed significant differences in theoretical, political, aesthetic and economic values. Dwivedi (1970) reported significantly higher mean scores for boys in theoretical value than girls and higher mean scores for girls in social, aesthetic and religious values than boys. Mehta's study (1972) on student-teacher's values also yielded similar results, where men excelled women in theoretical and economic while women surpassed men in aesthetic and religious value scores. De and Jaiswal (1972) observed a significant difference between boys and girls in aesthetic value in favour of girls. Tiwari and Gupta (1972) found boys to be higher than girls in theoretical and economic values. Chhabra (1975) found that female teachers gave prime importance to religious value. Gaur (1975) reported that urban boys scored significantly higher than urban girls on economic value scale. Chartoff (1976) reported high social value and low economic value for female hotline.

Volunteers compared to the value orientations of male volunteers and non-volunteers.

Ellis (1979) after analysing the data collected for a study on teacher values concluded that theoretical, economic and political values distinguish between males and females. Smith (1980), in his study on values of the school board members, also reported similar finding. He observed significant differences between male and female subjects on theoretical, economic and aesthetic scales in line with the original findings.

Some of the hypotheses forwarded by the investigators to explain sex difference in values are found to be interesting and thought provoking.

Hartmann (1934) attributed the difference in values between males and females to the influence of 'biological cleavage represented by the fact sex' on the nature of value organization. This view based on 'biological determinism' of behaviour is a negation of 'sociologism' held by the organic school of law, which considers the individual as something entirely inferable from the social whole. Even the evidences from anthropologists and modern behavioural scientists that highlight the importance of social and cultural factors as determinants of behavioural differences between sexes, tend to discredit the theory of Hartmann.

Moshin (1950) has suggested, what might be termed as 'sex Bound role expectancy' hypotheses to account for 'feminine' and 'masculine' value patterns. According to him masculinity has been traditionally associated with the pursuit and promotion of scientific interest. The cultural influences of his subjects (Indians) too favour a stronger and deeper entrenchment of these values in the male sex. For the proper utilization and manipulation of the environment, so as to fit in the 'protective role assigned to male' he must develop interest in the 'useful'. Whereas 'femininity' is characterised by 'devotion and love' and by 'personalised and appreciative' interest in object situations. Hence the dominance of social and aesthetic values in women.

Dixit and Shama (1969) applied 'social desirability' concept to explain sex differences in values. According to them, females on the whole, tend to be more oriented to conformity and sociability in doing things to please others, than the males. Their personality disposition, close attachment to the group, openmindedness and receptivity to new ideals, added together, make them more sensitive to peer group and societal mores and demands. In the light of above observations, findings of certain studies on sex differences related to interest of adolescents seem noteworthy. Symond' (1936) indicated that boys were more interested than girls in money, safety, health, civic affairs, study and

recreation, and girls were more interested than boys in personal attractiveness, etiquette, and getting along with people. Thompson (1949) found girls to be more discriminative than boys in evaluative ratings of socially approved and disapproved behaviour. Corroborating the findings of Symond, in particular and the various findings related to sex differences in values, in general, Stinger and Stefflre (1953) found that power, profit and independence were 'significantly over selected' by boys while girls showed inclination towards interesting experience and social service.

Just as partial validations of 'the original findings', partial contradiction were also reported by investigators studying values related to sex. A few of them are presented here. Beldsoe (1955), referred to before, reported that both men and women scored highest in religious value and found similarity of value structure (hierarchical order of sex values based on mean scores) between men and women. In his study, for both men and women religious, theoretical and economic scales were the first three choices and political social and aesthetic were the least preferred. The significant difference between males and females was found only in aesthetic value.

Hartshorn (1956) indicated a masculine value pattern of high theoretical, economic and political for both male and female leaders of organizations, compared to members and non-members. But the fact that 'leaders' consisted only of volunteers for the study might have affected the finding. Didato and Kennedy (1956) explored the question of 'Masculinity and Femininity' in personal values and arrived at the conclusion that 'feminine' males possessed a value pattern like that of 'normal' females; including high aesthetic, social and religious scores. In another study reported, (Evans, 1967) women's scores exceeded those of men significantly in theoretical value. Trends on other scales fell in line with the original finding. Dixit and Sharma (1970) when compared the over-all value pattern decided by rank order positions of values, no differences were noted between male and female teachers. De and Jaiswal (1972) reported a significantly higher mean score on social values for boys than that of girls. Tiwari and Gupta (1972) found that girls tend to score significantly higher than boys on political value. Chhabra (1975) indicated a tendency among male teachers to place prime importance to aesthetic and social values. The hypothesis that 'value is a function of sex' forwarded by Dwivedi (1979) was found rejected in a study where value measurement was accomplished using a test similar to 'study of values'. Another study that reported similarity

between values of men and women was conducted by Cameron (1979). When values^{of} male and female managers (in banking and insurance) were compared, it was found that female managers scored significantly higher in political value than general population and male managers were found to be lower than general population in political value. In general, male and female managers exhibited similarities in their value profiles. Their value profiles were found very different from that of general population.

(Results of studies that has been reported so far, more or less, depict value patterns that distinguish between males and females.) The masculine pattern is characterised by high theoretical, economic and political values and the feminine high social, aesthetic and religious values.) Dissensions to this most accepted finding were not soundly accounted for by many researchers; possibly because the atomistic approaches used in most of the studies limit the scope of explanations from a 'functionalistic' point of view. More global comprehensive integrated approaches, in contrast with the elemental approaches that have been used so far, seem to be a pre-requisite to arrive at cross -societal generalizations. Or else to make a universal generalization with the available information obtained from elemental approaches may seem quite premature and made in haste.

2.1.3 VALUES RELATED TO AGE

Review under the rubric 'age' covers two different categories of value investigations. One set of studies, using more or less a longitudinal approach, concentrates on the effect of aging on values. The other category of studies by using cross-sectional approach tries to reveal the inter-generational differences in values.

Beldsoe (1955) reported a highly significant and positive correlation (of $+0.565$) between aesthetic value scores and age of a group of forty six educational workers ranging in age from twenty five to fifty one. All the remaining five correlations were negative and insignificant. Anderson (1966) reported significant differences between older high school teachers and younger college teachers in economic value in favour of high school teachers. In this case, the difference in value between age groups may not be regarded as a manifestation of difference in age as groups taken for comparison represent two different populations. Not only that, the data of this study indicated a trend among the 'younger high school teachers' to score more nearly like the college teachers. Further, the younger teachers in both the groups scored less like the norms than their older colleagues. Goodwin (1973), in a comparison of junior and senior students

with a maximum of four years gap between them, found that seniors were more concerned with the economic value than juniors^{were}. Pandey (1976) when studied the value pattern of adolescents by age found that increase in age during adolescence was accompanied by an increase in priorities for political, theoretical and social values. Attempts to study the difference in values between young and old subjects, revealed that the older generation was significantly more religious than the younger (Sinha, 1972; Tiwari and Mishra, 1979). Further, it was found that the younger generation was more political than the older generation (Tiwari and Mishra, 1979). Significant differences between younger and older school superintendents in economic and political values were reported by Smith (1980). Andrews (1957) also reported similar findings when principals and teachers were studied on their values by age.

The effect of aging on value was studied by Kelly (1955). During the years 1935-38, he measured the values of three hundred engaged couples using Allport-Vernon Scale of Values. He re-assessed the values of four hundred and forty six of these same people after a lapse of twenty years and compared their values with the one obtained earlier. He noted significant shifts in the values of both men and women. Significant shifts towards lower theoretical and aesthetic

value were noted for men. Both men and women were found to have scored more in religious value than what they had scored twenty years before. Scores on economic, social and political scales remained about the same. Singer^{et.al.} (1973) studied values of forty nine male business administrators for a period of twelve years from 1960 to 1972 and found no substantial changes in their values. Three groups of college students were studied with 'study of values' between 1931 and 1956 and re-studied as alumni between 1952 and 1969 by Hoge and Bender (1974). Analysis of their data indicated some value changes. According to them, these changes in values cannot be explained by age alone but require an explanation in terms of current historical experiences affecting both students and alumni. They also found that value change in any period was greater among students and younger alumni than among older alumni, thereby indicating the youngster's susceptibility to change. Here, it should be noted that individuals having personality problems or experiencing frustration changed relatively more than others.

2.1.4 VALUES RELATED TO PERSONALITY CHARACTERISTICS

In this section of the review results of value studies related to personality characteristics are presented.

A few studies have examined the possible relationship between body type and values. Coffin (1944) based on such studies suggested that the endomorphs are relatively high on the social, and ectomorphs on political value. George (1954) after conducting a study to ascertain the relations between personal values, social attitudes and personality traits concluded that values can be related to some stable aspects of personality. He found that tough mindedness was related to economic, political and theoretical values. On factor radicalism-conservatism, values like political economic and to a much lesser extent religious were found associated with conservatism, while theoretical aesthetic and to a lesser extent social were associated with radicalism. Partial agreement to the above observation can be noted in the findings of Pyron's (1961) study of values and religion. When 'conservatism' was defined as low belief in change, it was found associated with high religious and low aesthetic values. Whereas non-conservatism was characterised by high theoretical, high aesthetic, low religious and low economic values.

Findings of some studies indicated a strong relationship between dogmatism and values. Value patterns that characterise conservatism as well as dogmatism revealed close resemblances. When Frumkin (1961) compared low dogmatic group with high dogmatic group for the differences in values, the

high dogmatic group was found to be higher than the low dogmatic group in economic and religious values; and lower than the norm group in theoretical and religious values. Similar results were reported by Juan^{et. al.} (1974) in another study.

The 'extratensive' and 'intratensive' personality characteristics were found related to the 'masculine' value pattern (high theoretical, economic and political) and to the 'feminine' pattern (high aesthetic, social and religious) respectively, (Dunn, 1958). In another study where 'MMPI' was used along with 'study of values' on 270 students, a positive significant correlation was found between the aesthetic scale and tendencies towards maladjustment on the M.M.P.I. (Sternberg, 1953). Vachon and DeGrale (1973) when studied 79 male Canadian college students on measures of self actualization as measured by Personal Orientation Inventory (POI) and values, found that subjects with high POI scores held higher political values and lower theoretical, religious and social values.

and Bender

Hoge^{et. al.} (1974) data on factors influencing value change indicated that persons having personality problems or experiencing personal frustration changed relatively more than others.

Mirchandani (1970) in a comparative study of personality profiles of delinquent and non-delinquent girls found that the delinquent girls were significantly higher than the non-delinquent girls in religious value.

Some relationship between values and achievement motivation was reported by Tamhankar (1968). High school students preferring theoretical occupations were found to have highest mean n-achievement; whereas those preferring aesthetic occupations were found to have lowest n-achievement. When correlation statistics applied a significant positive relation was found between n-achievement and theoretical value. n-achievement was found negatively and significantly related to aesthetic value in the same study.

2.1.5 VALUES RELATED TO INTELLIGENCE, ACHIEVEMENT, GIFTEDNESS, CREATIVITY, COMPREHENSION ETC.

Findings of studies concerned with relationship between values and intelligence are so contradictory that no consensus is possible. In some instances the relationships were found negligible and insignificant. (Triplett, 1935; Moshin, 1950). However, some significant negative and positive relations between achievement, intelligence and values were reported. Pinter (1933) observed a positive relationship between social value and intelligence and

a negative relationship between intelligence and both the economic and political values. Support to this finding was provided by Arsenian (1943) and Seago (1945) when they found that students who successfully complete college were higher than the drop-outs in social value. But a contradiction of this finding came from Mahendra (1978) who found that the only significant difference in values of drop-outs and successful college students was in religious values. Finding of Ganguly's (1967) study of post-graduate students corroborated the finding reported by Pinter. The top scorers in examinations differentiated quite significantly from bottom scorers in possessing high social and low political values. Similarly, bottom scorers held high economic and low theoretical values. When learning was measured using a standardized attainment test, Gaur (1975) in support to Pinter, found that learning was related positively to theoretical and social values in case of urban and rural girls. In the case of urban girls, learning was found negatively correlated to economic and religious values. Positive relation between achievement and theoretical value have been reported in many studies. In Schaffer's study (1936) the ACE general science subtest was found correlated positively with theoretical value and negatively with political value. Verma (1971) observed a positive correlation between achievement in methodology papers (B.Ed. examination) and

theoretical values of student teachers. A contradiction of this finding was indicated in the same study when a negative and significant correlation between achievement in practice teaching and theoretical value was unearthed. He also reported a positive correlation between economic value and achievement in theory papers (methodology papers not included) and a negative correlation between religious value and achievement in practice teaching. Altogether his report was found to be an amalgamation of supports and contradictions of the previous findings in this field. Mehta (1972) found that the high achievers were higher on theoretical value than the low achievers among B.Ed. students.

Bills (1952) explored the question of congruence of value patterns between student and instructor as related to scholastic achievement of students. Students who held the same general value pattern as their instructor were found to have higher final class marks than those of equal mental ability but differing in value pattern from the instructor. In another study, Battle (1957) found that teacher's estimate of pupil achievement was related to the degree of similarity existing between pupil's value pattern and teacher's ideal value pattern. These studies tried to relate the value system of the achievers to that of the teachers as the examiners of students.

Gowan (1956) studied values of education students in relation to their 'giftedness' and it was found that the gifted students tended to score significantly higher on theoretical and aesthetic but lower on economic and religious scales than did the students in the standardisation group. Warren and Heist (1960) also reported similar value pattern for gifted students.

The findings of studies suggest that creativity among individuals is related to their value orientations. The studies by Hall and Mackinnon (1969) and Helson and Crutchfield (1970) indicated that values could predict the criterion, 'creativity' in the theoretically expected manner. They found that the 'creatives' were high on the theoretical and low on the religious value scales. A partial corroboration of this finding could be found in the study reported by Paramesh (1971). He tested 216 tenth grade boys for their creativity and values. He found that the high creative group quite significantly exceeded the low creative and moderate creative group in theoretical and aesthetic values. An exception to the findings quoted above was reported by Singh (1977) in his study of creative and non-creative student teachers. When comparison of high and low creativity groups of students was made, in terms of their value orientation as measured by an Indian adaptation of Ojha study of values

(contrary to his expectations and contradictory to the previous findings) his data indicated that the high creativity among student teachers was found coupled with higher economic value and low creativity with higher theoretical value.

2.1.6 VALUES RELATED TO VOCATIONAL INTERESTS

Quite a number of studies have been done which relate values with occupational interests. Some of the earlier studies conducted by Van Dusen^{et.al.} (1939), Sarbin and Berdie (1940), Ferguson, Humphrey and Strong (1941) and Tussiry (1942) have shown that definite trends exists which connect the "strong occupational interest" scoring categories with Allport-Vernon 'Study of Values' types. To quote Strong (1943)

"These relationships between Allport-Vernon values and occupational interests indicate general trends and aid in interpreting both sets of data".

Guba and Getzels (1956) reported consistency of values of Air-force officers with some of their high interest areas on Kuder Preference Record. A finding, almost similar, was reported by Reddy (1978) in a study on the development of vocational sense among adolescents. His data indicated that there was an increasing integration between adolescents' value orientation and their choice of occupation with increasing grade level. Bell (1972) examined the values of 12th grade

boys and girls in relation to their vocational interests. Significant positive correlations were obtained for boys between scores on economic value and interest in business-oriented occupations; scores on social value scaled and interest in social service occupations; and scores on theoretical value scale and interest in science related occupations. For girls, significant relationships were obtained between scores on economic value and interest in business-oriented occupations; and scores on aesthetic value and interest in aesthetic occupations.

2.1.7 VALUES RELATED TO MAJOR ACADEMIC GROUPS AND PROFESSIONAL GROUPS ✓

Different academic groups have often been analysed with respect to their values. Major trends in the results are presented here. Earlier studies reviewed by Dukes (1955) indicated that commercial and business students scored above the norm in economic value and below the norm in the aesthetic. Literature and drama students were above average in the aesthetic and science students above average in the theoretical. Medical students scored higher than law, business or engineering students in the theoretical values, and lower than law students in the political. Liberal arts students were more aesthetic and more theoretical than

business or engineering students; both business and law students were more political than those in liberal arts. Law students were less economic than business students but more economic than those in liberal arts, who in turn were more economic than business students. (Cantril and Allport, 1933; Harris, 1934; Triplett, 1935; Schaffer, 1936; Whitely, 1938; Wickert, 1940). Newcomb (1943) reported that science and social studies students tended to score high in theoretical. Social studies students were found considerably higher in economic value than were music or drama students and also higher in political value than art or drama-dance students. Andrew's (1957) finding that social studies teachers also tended to score high in political value and aesthetic value supported Newcomb's observations about university students majoring in social studies. Findings of several recent studies (Deignan, 1958; Mackinnon, 1964; Getzels and Csikszentmihalyi, 1968; and Csikszentmihalyi, 1973) also indicated that the value structure of artists and art students was characterised by very high aesthetic and very low economic values. Allport (1969) with the help of data derived from various sources (from test manual, from Guthrie and McKendry, 1963; and from an unpublished study of Elizebeth Moses's) pointed out that student teachers and practising teachers selected theoretical value significantly more often than did graduate students of business administration. Religious value

was found to be the highest scored value area by nurses in training for teaching. Pal (1969) also made observations that supported previous findings in this area. He reported that the engineering students yielded high scores on economic and aesthetic values while the scores of medical students were found to be high in theoretical and social values. For the engineering students economic value variable emerged as the highest single value variable and religious value the lowest. For the law students political value emerged as the highest value variable followed by economic value. For student teachers political value emerged as the highest value variable followed by theoretical value. Data obtained by Goode (1979) indicated that senior secondary students in vocational streams were likely to hold high theoretical and aesthetic values while those in academic streams were inclined to have high economic and religious values.

Value characterisation of professional groups were also attempted by many. Major trends in this field are given below.

Persons in religious occupations or in training programmes were found high in religious value (Postman and Bruner, 1948; Pugh, 1951; Birkenstock, 1977).

When the value pattern of sports men and women were compared with non-sports men and women, all sports group under study irrespective of sex found to have dominance in social values compared to other values (Verma, 1980).

Managers in Banking were found to be high on theoretical and low on social compared to managers in Insurance in Nebraska study of group (Cameron, 1979). In another study American business graduate students were found to be scored lowest in social value and highest in economic value (Badr, 1979). An interesting study on the values of business men was reported by Karvel (1974). In this study, values of 15 long-haired, blue-jeaned business men were compared with those of 15 business students who fit the more traditional image of the business man. The blue jeaned business men were found to have higher aesthetic and lower economic values than what the traditional group were found to have.

When school administrators were compared with school board members, school administrators were found to be higher on social value and lower on economic value than board members. (Birkenstock, 1977; and Smith, 1980).

Compared to administrators, both secondary and

elementary school teachers were found to be high in economic value (Beldose, 1955). Compared to secondary school teachers, college teachers were found high on aesthetic scale and low on economic scale. (Anderson, 1966). Contradiction of this finding was reported by Dixit and Sharma (1971) where high school male teachers had scored significantly higher than university male teachers on aesthetic value as measured by Bhatnagar's Hindi value scale developed on the lines of study of values. They also found that on economic value the university female teachers secured significantly higher score than the high school female teachers. Singh (1974) found that teachers scored highest on social and theoretical values and lowest on economic and political values. According to Chhabra (1975) aesthetic and social values were cherished more than economic and political values by teachers.

Change in value orientation of individuals in accordance with the career selected was pointed out by Allport (1969) with the help of the data of an unpublished follow up study conducted by Betty Marwardi. He reported that the deviations observed were found meaningful for the occupations accepted by the individuals. Thus, it was found that women in business became more economic; medical, government and scientific workers became more theoretical; literary

and artistic workers became more aesthetic; social workers became more social and religious workers more religious than what they were fifteen years ago as students.

2.1.8 VALUES AND TEACHER CHARACTERISTICS

Some researchers viewed teacher behaviour as a function of the dominant values held by the teacher. Hence attempts have^e been made to show evidences proving the influence of values on teacher's verbal behaviour. In one such attempt, Bowie (1957) found that teachers verbal behaviour in the classroom was influenced by his value-orientations as identified by 'study of values'. Later Bowie and Morgan (1962) confirmed some of the relationships between teacher's values and their verbal behaviour. They found that teachers with high religious value were inclined to make more supportive statements than teachers whose value systems were characterised by high political value. Teachers having high social value were found to have a tendency to emphasize social expectations to a greater extent than those having high political value. High political value groups were found to make more unsupportive statements than teachers with high religious value. These findings seem to merit further explanations.

(1972)

Kaul, made an attempt to identify the value pattern of 'popular teachers'. 'Popular' and 'not popular' teachers were selected based on students' opinion. Value comparison of these groups indicated that popular teachers were significantly high in theoretical, social, political and religious values compared to not popular teachers. Data provided by Kollmier (1980) indicated that students evaluated their teachers in terms of value-orientations they exhibited in their classrooms. A significant positive correlation was reported by Verma (1968) between teacher attitude and teacher's social value. He also reported a significant negative correlation between teacher attitude as measured by MTAI and the political value. In support of this finding, Singh (1974) indicated a positive relation between teacher attitude as measured by Ahluwalia's Teacher Attitude Inventory and both theoretical and social scores. Similarly, a negative correlation was also found between attitude scores and both economic and political value scores in the same study. But some investigators failed to observe any significant relation between teacher attitude and teacher's value (Sheldon, Coale and Copple, 1959). Singh (1974) reported that 'teachers scoring high on theoretical and social' value scales were 'satisfied' with their work whereas teachers 'scoring high on economic and political' value scales were 'not satisfied' with their profession. According to Chhabra (1975), teacher

morale was found negatively related to economic value and for male teachers, morale was found positively related to political value.

2.1.9 EFFECT OF TRAINING ON VALUES

Attempts made to explore the effect of teacher training on teacher's value orientations, yielded evidences on value change resulting from the training undergone.

Evans (1967) compared the entry value orientations of seventy eight teacher-trainees (obtained prior to the commencement of a course) with their terminal value orientations (obtained after the completion of the course) and noted significant changes in their value orientations. Economic and religious values of teachers were found to be significantly affected by the course undergone by them. The aesthetic scores of the women exceeded those of the men from 0.05 level of significance before training to 0.01 level after training. A similar study with Indian sample was reported by Kakkar (1970). B.Ed. training was found to have made significant changes in the social and the economic values of the trainees. Data revealed significant rise in their social and fall in their economic values. Effect of teacher training on the values of 240 teacher trainees selected from eight training colleges affiliated to Rajasthan University

was reported by Verma (1971). Analysis of his data revealed that men had gained significantly in aesthetic and of social values and had lost significantly in economic and religious values where as women had gained significantly in aesthetic and religious values and lost significantly in political, social and economic values. Men trainees had gained more than women in theoretical, aesthetic and social values, while women had gained more than men in religious value. Fall of economic value as a result of training can be quoted as a common finding for all these three studies.

When the impact of an experimental educational programme, on the values of twenty two undergraduate participants was studied, the experimental group had shown only very little change as indicated by the pre and post test scores. While the control group became more similar to experimental group in their value pattern (Johansson and Dey, 1973).

2.1.10 VALUES IN RELATION TO SOCIAL RELATIONSHIPS AND ADJUSTMENT

In the area of social relationship and family relationship significant value structure similarities between pairs of friends and between husband and wife pairs have been repeatedly observed. (Richardson, 1940; Bonney, 1946; Precker,

1953; Thompson, 1952). An exception to these findings can be noted in the work of Marsden (1966). The results of this study did not confirm the expectation of greater similarity in value structure between friends and non-friends. Data collected by Dixit and Sharma (1970) indicated a possibility in predicting student-teacher relationship on the basis of incorporation of teacher's value by students.

A further extension of this aspect can be found in the attempts made by the investigators to relate values to adjustment. Ratings of adjustment of college men obtained from deans and advisers showed positive correlations with religious and social values and negative correlation with economic value. (Todd, 1941). Data provided by Tiwari, Singh and Srivastava (1975) indicated better adjustment among female with low economic, high aesthetic and religious values.

2.1.11 VALUES AND ENVIRONMENTAL DIFFERENCES ✓

Under this rubric studies on values related to institutional differences, rural urban differences, religious differences, status-income differences, and national-cultural differences are presented.

Goodwin (1973) investigated the value patterns of

students at four colleges that varied in their nature or purpose. Eighty students each from a work cooperative college, a church related college, a state supported college and a private college were selected for the study. On comparing their value patterns, Goodwin found that the private college students were more political but less religious than the students from other colleges. The church related college students had high religious values, but their other values were lower than most of the other students. The state college students and work college students were less clearly differentiated. Reinholtz (1979) investigated the value patterns of three groups of Industrial Arts teachers. Those who graduated from a Seventh Day Adventist (SDA) institution and teaching Industrial Arts full time in SDA schools constituted the SDA-SDA group. The SDA-State group consisted of those who graduated from an SDA institution and teaching industrial arts full time in a public school. Those who graduated from a State institution and teaching industrial arts full time in a public school formed the State-State group. Comparison of values of these groups indicated that the State-State group scored significantly higher in economic value than the SDA-State group and also scored higher in aesthetic value than the SDA-SDA group. The SDA-SDA and SDA-State groups scored significantly higher in religious and

) social values than the State-State group. Wernig (1980) reported difference in value patterns between female students attending a women's college and co-educational college. More over, a relationship between patterns of personal values and enrolment at a 'single sex' or co-educational institution was also established. From these findings, it is not clear whether the type of institution affected the value pattern of the individuals or the value pattern of the individual influenced his choice of institution.

Difference in rural-urban character raises the question of possible rural-urban differences in values. Landis's (1949) hypothesis that rural girls would be more economic and less aesthetic than urban girls was not verified by his data. Gaur (1975) observed significant difference between urban and rural girls on theoretical value. Tiwari and Mishra (1971) found that the urban subjects of their study were significantly higher on aesthetic value than their rural counterparts. Smith (1980) in his study of board members and superintendents from Ohio school pointed out that the village superintendents had a significantly higher mean economic value score than city or country superintendents. Birkenstock (1977) also obtained similar results with regard to principal's value orientations. Singh (1974) reported that the rural-urban location of the school had no significant

bearing on values of teachers.

Value studies with respect to religious affiliations of individuals have been carried out by many researchers. Harris (1934) in one such attempt revealed that the religious value of Jews were lower than both the Protestants and Catholics. This finding was later confirmed by Sporel (1952). Southern Negro Church Ministers were found to have the highest score in religious value and the lowest in aesthetic. The same value pattern was noted for (other unofficial) members of their congregation (Pugh, 1951). Pyron (1961) reported high religious and low aesthetic values among conservative Catholics and Protestants. Krichner and Miller (1974) found that Catholics scored higher than Protestants in political value and the Protestant women were more aesthetic than Catholic women. Their data revealed a trend among those with little interest in religion to compensate for their low religious value score in social and aesthetic value area. Bender (1958) reported a positive correlation (of .79) between church attendance and religious value score of graduate students. When Begum and Hafeez (1964) studied the value preferences as related to caste and religion, no significant relation was found between these variables.

Some value studies in relation to socio-economic status are presented here. Reddy and Parameswaran (1966)

reported a relationship between values and the family income of college students. They found that college students from low income families were more economically oriented than students from higher income families. Singer and Abramson (1973) investigated the relationship between values and financial status of 49 business administrators and arrived at a conclusion that values were not related to the financial status of the subjects studied. Using a Telegu version of 'Study of Values' Rao (1973) studied the value orientation of 3000 students. After examining the influence of parent's socio-economic background on subject's value orientations, he reported that the socio-economic status of the family did not appear to have any significant influence on student's value orientations. Sharma (1975) found that the socio-economic status of the female college students was not related to their value orientations.

'Study of Values' have been used for racial or cross-cultural comparison of values (Rodd, 1959, Gillespie and Allport 1955; Goodman 1957; Kakkar, 1971; Bhatnagar, 1971). Nobechi (1957) collected data on value orientations of university students and compared it with data obtained from American standardisation group by Allport-Vernon and Lindzey. He found that the overall Japanese pattern was high aesthetic and low religious and included more scatter than

the American, but the 'educational specialities' had high and low scores, same as American students - high aesthetic for letters, political for law and economic for economics etc. Rodd (1959) studied the orientations of eleventh grade Taiwanese and mainland Chinese students (in Taiwan) and compared the results with those obtained by Nobechi (1957) and with the results of American standardisation group. Females in all these groups were found to score more than males in religious values and lower than males in economic and theoretical values. This finding was found to be independent of cultural differences in these samples. A cross-cultural comparative study of values of Indian students in India, expatriate Indian students in Britain and British students was attempted by Bhatnagar (1971). 'Study of Values' was suitably modified and employed for measuring values. Analysis of data indicated that Indians in India were less aesthetic and social than British students; however, Indian students in India were more politically and economically oriented and more religious than British students; but British females scored higher than Indian women in economic value, unlike their male counterparts, male Indian students in Britain had a significantly lower religious value than the males of the other groups. Bhatnagar after interpreting the results came to the conclusion that the impact of British

culture on Indian students had "resulted in their acquiring a position more compatible with the values of the British cultural group". Kakkar (1971) on comparing the value scores of Indian teacher trainees and college teachers with that of American school teachers and college teachers found that American subjects significantly excelled Indian subjects on all value scores except in economic and social values. Hicks (1975) when compared the value scores of expatriate Australian high school students in Papua New Guinea with the value scores of U.S. norm group, found that expatriate Australian students scored significantly more in economic and aesthetic values than U.S. students. Badr (1979) reported a comparative study of the effects of personal value structures on decision making between Egyptian and American graduate students. He found no significant differences in the intensity of the correlations between personal values and choices of action by the Egyptian and American graduate business student groups. With regard to value structure, these groups differed with each other. Egyptian student group's value pattern was characterised by highest theoretical and lowest aesthetic whereas in the case of American student group, economic value was placed highest and social value the lowest.

Interest shown in this area of research is well illustrated by the steadily mounting bibliography and reviews of 'Study of Values' appearing in journals and

books concerned (Duffy, 1940; Meehl, 1949; Coats, 1950; Eysenck, 1953; Dukes, 1955; Gough and Stephenson, 1953 ; Gage, 1959; Hundleyby, 1965; Radcliffe, 1965; and Hogan, 1972). This review presented only a sample of studies that have been reported in this field since the conception of the test, 'study of Values' in 1931. The use of elemental approaches, lack of comprehensive theoretical framework, and absence of overall contextual evaluations, in most of the studies, resulted in limiting the scope of their findings at an application level, especially in formulating a general theory of value in psychology. The observation of Hundleyby (1965) indicated that the majority of researchers were far more concerned

"With such problems as obtaining specific value scores or changes in such scores, than with theoretical problems of Spranger's system of values in the context of contemporary theory and research findings".

Dukes (1955) also pointed out that the psychologists while remain concentrated in the application of instruments (to measure values) to problems of individual differences, have neglected the individual as such. If we really wish to widen the horizon of our understanding in this field , we must try to approach the problems related to values with broader perspective and study them using interdisciplinary comparative approach. Since cross-cultural studies could adopt such

a frame-work to start with their paramount importance in the area of value research is beyond any shadow of reasonable doubt. This necessitates a clarion call for further cross-cultural researches in this field.

2.2 REVIEW OF STUDIES ON TEACHER ATTITUDES

'Teacher attitude' is the second major aspect of this investigation. The importance of this aspect in education is perhaps, most aptly presented in Ferron's (1965) observation

"Teacher's attitudes towards one another and their work determine to a much greater extent than has often been realised, the end product of education".

As befits the importance of the subject the field of teacher attitude is replete with too many studies to be covered in its entirety in one section of the review chapter. Hence, only those studies on teacher attitude where Minnesota's Teacher Attitude Inventory (MTAI) is used as a tool to measure attitude, are included in this review. Studies reported here helped the investigator in understanding the nature of the tool, its various applications and also its relation to selected variables of interest with regard to teacher behaviour.

After a brief consideration of some studies related to the nature and limitations of the tool (MTAI), studies examining the relationship between teacher attitudes and other variables are presented.

2.2.1 MTAI - ITS NATURE AND LIMITATIONS

A factor analytic study (Horn and Morrison, 1965) of the MTAI yielded evidence contradictory to the 'unifactor attitude' hypothesis held by its authors and users. Cook, Leeds and Callis (1951) who designed MTAI to measure a single attribute, the teacher attitude, considered it as a unifactor attitude involving at one extreme a belief in and preference for 'democratic' values versus at the other extreme a belief in and preference for 'autocratic' values. But a factor analytic study of the tool, employing 306 college students enrolled in an education course, suggested the existence of at least five factors in the place of the one factor mentioned above (Horn and Morrison, 1965). Factor I, appeared to reflect a 'modern' attitude towards classroom control, as contrasted with 'the pre-Deweyian' or 'traditionalistic' attitude. This factor was found very similar to that of Eysenck's (1953) tough versus tendermindedness factor in personality. Factor II, suggested 'an optimism-favourable' versus 'pessimism-unfavourable'

dimension of opinions about pupils. This factor seemed to parallel Ryan's (1960) dimension of 'favourable versus unfavourable opinions of pupils'. Factor III seemed to represent 'permissive tolerance' or 'lack of concern' versus 'punitive intolerance' or 'concern' about 'smart' 'rebellious' behaviour. This factor seemed to match Baldwin and his associates' (1945) 'rejectant and autocratic' dimension in parent behaviour. Factor IV reflected 'aloof attitude' 'stemming from bewilderment' rather than from 'dislike or punitiveness' (factors II & III) versus 'involved attitude toward children'. Factor V seemed to indicate a 'laissez-faire versus controlling attitude' toward children. Horn and Morrison (1965) conclusively indicated that the total score (single) obtained in MTAI represented at least five independent response consistencies. Campbell (1967) for studying the effect of student teaching experience on teacher attitude used a dimensional approach with MTAI. In this approach the MTAI statements were categorised and placed in five dimensions. The dimensions represented the five areas of social education literature from which items for the inventory were pooled. They were,

- (1) moral status of children in the opinion of adults especially as adults impose standards;

- (2) discipline and problems in the classroom and else-where plus methods employed to deal with such problems;
- (3) principles of child development and behaviour related ability, achievement, learning, motivation and personality development;
- (4) principles of education related to philosophy, curriculum and administration; and
- (5) personal reactions of the teacher to include likes and dislikes, sources of irritation etc.

In a critical examination of MTAI, Evans (1966) observed that this test "seeks to pinpoint teacher's attitudes on a liberal-conservative continuum". After analysing the scoring system she pointed out that of the 750 possible responses, 149 responses "do not contribute to the score at all, and which may be called 'Neutral' for convenience".

The methodological question of 'fakability' of MTAI had been probed into by many investigators. Researches on fakability of MTAI received impetus after the assertion made by Callis (1950), one of the authors of MTAI, that the inventory was only 'slightly susceptible' to attempts

to fake good. The counter assertion made by Rabinowitz (1954) that it was 'highly susceptible' to attempts to fake good if the subject had some knowledge of the view point endorsed by the teacher selection agency, stimulated a series of investigations on this aspect. Findings of some studies indicated that the subjects could not fake the test 'good' without an explicit set being provided for them. (Stein and Hardy, 1957; Sorenson and Sheldon, 1958; Rossi, Yengo and Boyd, 1966). Some what similar to the above finding, Coleman (1954), Sorenson (1956), Sheldon (1959), and Polmantier and Ferguson (1960) found the test could be faked good when responding set was provided for the subjects. Rossi, Yengo and Boyd (1966) viewed MTAI as a very useful instrument for selection purposes. This did not agree with the views, held by Rabinowitz (1954) and Evans (1966) which state that MTAI would not be a satisfactory instrument for use in selection of students. Evans (1966) suggested re-standardization if MTAI was to be used in Britain.

2.2.2 TEACHER ATTITUDE IN RELATION TO SOME PERSONALITY CHARACTERISTICS

Attempts to study teacher attitude in relation to personality characteristics are many. A few of them, where

MTAI was used for measuring teacher attitude, are presented here.

Medley and Mitzel (1959) studied the teacher attitude in relation to personality characteristics as measured by Minnesota Multiphasic Personality Inventory (MMPI). They found that teachers who had positive pupil teacher rapport as indicated by high MTAI scores tended to score high on the hysteria and psychopathic deviate scales of MMPI, while low scorers on MTAI were often highest on the hypochondriasis and depression scales of MMPI. Teigland (1966) investigated the relationship of anxiety, autonomy, deference, self acceptance and achievement to change in attitude towards teacher-pupil relationship (MTAI) of prospective teachers. It was found that those who changed towards a more positive attitude (high scores on MTAI) scored significantly higher on deference scale and achieved significantly higher course grades than those who revealed negative change on MTAI. Kakkar (1970) tried to relate 'prospective teacher's' change in attitude towards teacher pupil relationship to their interpersonal values (such as benevolence, confirmity, independence, leadership etc.) and academic achievement. His data revealed that the group which expressed a more positive attitude on MTAI, scored significantly higher on benevolence and confirmity and obtained significantly higher course

achievement scores than the group that expressed maximum negative attitude. In attempts to study the relationship between teacher attitude as measured by MTAI and personal values as measured by study of values, it was found that teachers having positive attitude did not differ significantly from those teachers possessing negative attitude on any of the six value scales of the 'study of value' test (Sheldon, Coale and Copple, 1959). But Verma (1968) reported a significant positive correlation between attitude scores and social value scores and a significant negative relation between political value and teacher attitude. Raina (1972) reported a significant negative relation between scores on authoritarianism as measured by F.Scale and scores on teacher attitude as measured by MTAI.

When Evans (1958) tried to relate teacher attitude scores with Moray House Adult Intelligence Test scores she found no significant correlation with these two. In the same study, she reported a significant positive correlation between MTAI scores and Raven's Progressive Matrices scores indicating abstract reasoning ability. But in another study (Sheldon et al, 1959) high scorers on MTAI - psychology students who obtained high scores on MTAI, were found to be higher than the low scorers - psychology students with low MTAI scores, in intelligence test scores obtained using WAIS.

In a comparative study of creative and non-creative B.Ed. students, Singh (1977) reported that teacher attitude measure (MTAI Scores) failed to differentiate the creative group from the non-creative group. Hence he concluded that teacher attitude did not seem to have differential effects upon high and low creativity among student teachers.

Gnagey (1968) reported a significant positive correlation between teacher attitude scores of student teachers and their parental acceptance scores.

Findings of studies reviewed here suggested that factors other than teacher attitude might also be present in MTAI scores

2.2.3 TEACHER ATTITUDE IN RELATION TO TEACHER BEHAVIOUR

Findings of attempts to relate teacher attitude and teacher's classroom behaviour are far from univocal. Cook, Leed and Callis (1951), the authors of MTAI suggested that teacher behaviour would be reflected through teacher attitude. Davies (1961) reported a significant but low positive correlation between 'responsive teacher behaviour' and MTAI scores. It was argued that the fiftyone junior high school teachers that constituted her sample taught in many

different subject matter areas might have reduced the magnitude of the correlations. Bowers and Soar (1961) correlated three dimensions of observed teacher behaviour (emotional climate, verbal emphasis and social organization) as measured by OSCAR with MTAI. The dimension emotional climate showed a low positive correlation with scores on MTAI. Seibel (1967) revealed a positive correlation between MTAI scores and a teacher behaviour variable designated as 'contact' which reflected emotional warmth or ease of interaction between teachers and pupils. Rodriguez (1967), Nair (1967), Sreenivasan (1967) and Chacko (1967) studied the relation between attitude and classroom behaviour of teachers teaching in standards IV, VI, VIII and IX respectively. The instrument they used to measure attitude was modelled after MTAI. They observed positive correlation between teacher attitude and teacher behaviour scores of primary school teachers. The correlation was found very low in the case of high school teachers. Using Flander's category system Giebink (1967) observed twenty seven female elementary school teachers twice for twenty minutes each. The MTAI was also administered to obtain a measure of teacher attitude when correlations were computed, none of the correlations between MTAI scores and the teacher behaviour categories were found to be significant. Hence he

concluded that there was no relationship between the attitude measured by the MTAI and observed teacher behaviour. Campbel (1973) also obtained some what similar finding. Contradictions to this finding are many. Even before Giebink, Wilk and Edson (1963) reported that a very strong relationship existed between a special weighting system of Flander's Categories and MTAI Scores. Their sample was also constituted of female elementary school teachers (N=36). Singh (1974) and Malhotra (1976) reported significant relationship between attitude towards teaching and classroom verbal behaviours of student teachers and of classroom teachers respectively. Singh (1974) reported a negative correlation between 'direct teacher behaviour' on Flander's Categories and MTAI Scores. Similarly, Malhotra (1976) found that teachers with positive attitudes were more indirect in their classroom than teachers with negative attitudes.

Findings of majority of studies confirmed the existence of a relationship between teacher attitude and teacher's classroom behaviour.

2.2.4 TEACHER ATTITUDE AND PREDICTION OF TEACHING SUCCESS

Ellis (1961) and Munro (1964) compared MTAI Scores with ratings by principals or supervisors. Although some

correlations were found statistically significant, Munro(1964) suggested after considering the magnitude of the coefficients that making predictions based on MTAI scores would be an extremely hazardous undertaking. Ellis had arrived at a still more negative conclusion that the factors of MTAI cannot be considered as determinative in predicting outstanding teachers. Sharma (1971) also pointed out the failure of MTAI as predictor of teacher effectiveness. According to him the combination of teaching aptitude, academic grades, socio-economic status, teaching experience and age appeared to be a sound predictor of teacher effectiveness at elementary school level. Dissenting reports from these findings have also been made by investigators. Herbert and Turnbull (1963) provided evidence that the inventory distinguished between the more and the less successful student teachers in a study of students in three year teacher training course. Gupta (1977) in his study of two hundred male and two hundred female higher secondary school teachers found that success in teaching was significantly related to teacher attitude, personality factors and adjustments in various fields. He observed attitudinal differences that distinguish the more successful and less successful teachers. He concluded that personality characteristics, adjustment, attitude towards teaching and sex combined together were better indicators

of teaching success than individual factors. Wilson (1980) tried to relate teacher effectiveness, as perceived by administrators to teacher's attitudes, organizational climate and teacher's demographic data and arrived at the conclusion that perceptions of teacher effectiveness could be partially attributed to the school organizational climate, the teacher's attitude towards students and teacher's demographic data.

The dissenting results seem to be at least partly due to the differences in concepts used to define and in measures used to tap teacher effectiveness or teaching success. Lack of generality in the use of the terms 'effectiveness' and 'success' is conspicuous. Moreover, 'effectiveness' to become operational might require combined effects of many factors not alone teacher attitude.

2.2.5 IMPACT OF TRAINING ON TEACHER ATTITUDE

Probably this is the area where most of the studies using MTAI have been attempted. There are a large number of studies reporting the effect of various training, mostly teacher training, on attitude as measured by MTAI. A few of them are reviewed in this section.

Most of the studies reported, revealed change in teacher attitude as measured by MTAI of student teachers as a result of participation in teacher training course. Brim (1966) investigated the effect of teacher training programme upon the attitudes of 250 under-graduate teacher education students towards children. Attitudinal change was determined using pre-test and post-test responses to the MTAI. He observed significant change in the attitudes of students after the course. Students taking teacher's diploma course at University College Cardiff in the session 1965-66, were studied by Evans (1967). When pre-test and post-test scores of the experimental group selected out of the total sample were compared, significant attitudinal change was observed for the experimental group student teachers at the completion of the course. Verma (1968) investigated the impact of B.Ed. training on teacher attitudes of 546 B.Ed. students from Rajasthan and observed that the students gained significantly on almost all points of the scale at the end of the course. He further observed that students from higher socio-economic status had developed a more positive attitude compared to other socio-economic groups. Freshmen had gained significantly more than the student teachers with prior teaching experience in the development of favourable teacher attitudes. Kakkar (1970) administered MTAI to one

hundred and sixty under-graduate teacher trainees at the beginning as well as at the end of the teacher training programme intended for elementary school teachers and compared the pre-test and post-test results. Nineteen trainees who showed great change in scores were interviewed and a change in the direction of more liberal attitude towards children at the end of the training programme was noticed. Verma (1971) reported sex difference in proneness to change in attitude. Comparison of pre-test and post-test responses of 120 men and 120 women B.Ed. student teachers, revealed that women trainees had gained more than men in attitude scores. Vasishta (1976) studied the effect of a training in verbal interaction technique on the attitude towards teaching of secondary science and mathematics student teachers. It was found that training in Flanders Verbal Interaction Technique significantly (and favourably) changed the attitude towards teaching of student teachers. Francis (1980) when studied the effect of a teacher development programme on forty teachers who participated in the programme, found that most significant change was demonstrated by language art teachers.

Studies reporting no significant changes in attitude after a training programme, are not many. Raina (1972) when compared the two test responses obtained at an interval of

28 weeks from hundred and forty student teachers, found no significant change in the attitudes of student teachers, inspite of their twenty eight weeks exposure to the training programme. Niblett (1979), when he studied the effect of a structured training sequence in transactional analysis on educators, found that no significant changes in the attitude of the participants, as measured by MTAI, occurred.

The MTAI is found to be a sensitive instrument to measure change in attitude resulting from training programmes in education. A serious criticism levelled against this instrument is that the responses obtained using this test does not necessarily indicate the real attitude or shift in attitude, but only indicate knowledge of the desirable attitude a teacher should have, since the teacher training programmes provide the knowledge regarding desirable teacher behaviour from the mental health point of view.

Teacher attitude, as reviewed in this chapter indicates its possible relations to many variables connected with education and personality characteristics. Teacher attitude as measured by MTAI has mostly remained in the domain of teacher education. Out of the context of teacher education, as a tool to measure teacher attitude, MTAI has not been used much, eventhough what it measures found related

to many personality characteristics. This might have caused the paucity of cross-cultural studies in the area of teacher attitude. Temptation to use MTAI to study teacher attitude at cross-cultural level must be particularly compelling since attitude measured by it is given against an authoritarian versus democratic spectrum, which equally characterises societies also. Further this will provide an opportunity to interpret its data from socio-cultural point of view, that may lead to further insights into teacher attitude. Hence, it is felt that researchers must also attempt to study teacher attitude as measured by MTAI against the background of teacher's socio-cultural context.