PART - I
IDENTIFICATION OF DISCIPLINED AND
INDISCIPLINED STUDENTS
Realizing the need for an objective type of instrument for the identification of disciplined and indisciplined behavior the investigator attempted to search for a suitable instrument. But in the absence of any research or any measuring tool for this purpose it posed a rather puzzling and challenging problem. So, the work had to start right from the scratch, and it was therefore planned to prepare some new objective instrument which would measure discipline and indiscipline. As soon as this new project of developing the proposed tool was decided upon, the most baffling and most important problem was to determine the form of instrument to be designed for this purpose. The present chapter sums up these considerations.

2.1 Self-report Questionnaires And Inventories

No one has so continuous an opportunity to observe an individual as the individual himself has. So, an obvious approach to find out an individual's personality, his interests, or his attitudes lies in asking him about them, i.e., his self-report. Self-report questionnaire is essentially a standard set of questions about some aspect or aspects of an individual's behavior presented in a standard way and scored with a standard key. The questionnaire method was devised to economise time and to provide an enquiry that is uniform for the purposes of presentation and evaluation. Though
this method of self-report may be inaccurate in some respects
the individual himself is the single richest repository for
any factual information that we want to have about him.
Whereas individual's self-report has one outstanding advantage
in that it provides an "inside view" based on all the
individual's experience with and knowledge about himself, it
is sometimes handicapped by the following factors:-

1) individual's lack of ability to read and interpret
the questions or items properly.

2) His lack of insight and of self-understanding.

3) His unwillingness to reveal himself frankly.

The entire utility and success of a questionnaire
rests upon individual's co-operation and truthfulness. How
an individual is motivated at the time of questioning has a
lot to do with his responses.

The questionnaire has resulted in its being generally
discredited as a source of data because of above-mentioned
weaknesses inherent in the questionnaire. The blunt question
"Would you like to be a teacher?" or "Do you wake up fresh?"
does not give adequate information because the answer may be
superficial. So, the blunt question is replaced by the
indirect, comprehensive, objectively scored inventory -
although some of the items in the inventories are still
direct. But a majority of them - the more recent ones - are
adopting indirect and subtle statements. A self-report
inventory is indubitably a series of standardized verbal
stimuli. When proper test construction procedures have been
followed, the responses elicited by these stimuli are scored in terms of their empirically established behaviour correlates. They are thus treated like any other psychological test responses (Anastasi, 1959).

3.2 Weaknesses Of The Inventories

Construction and use of inventories is beset with special difficulties over and above the common problems encountered in psychological testing. Inventories are accused for faking and malingering. They offer enormous difficulty in determining reliability because the behaviour or trait measured can undergo a swift change. So far as validity is concerned, the search for adequate criterion data has generally proved unsuccessful. Further, it is said that ambiguity is inherent in the very nature of inventory items as well as responses. It is stated that a given question or statement in an inventory does not have the same meaning for all subjects, even when clearly stated. It is a fallacy to assume that all persons have similar reasons for giving similar responses to an item. The "Yes" or "No" type of response which many inventories elicit has its own limitations. Not all the questions can be answered in this manner. Some writers assume, however, that item-vagueness in inventories should be retained since it allows free play to individual's behaviour. Besides, there has been found among the subjects a general tendency to overrate themselves on the trait or traits in question. There are certain subjects who lack insight into their traits. Others fundamentally and unconsciously
may reveal themselves to be different personalities from their own conscious self-appraisals. Finally, the scoring of responses to items is often based upon test author's own judgements and set of values.

Cronbach (1946, 50) has pointed to the operation of certain response sets on the part of subjects while replying to inventory items. A response set, according to him, is a habit or momentary set which causes the subject to earn a different score from the one he would earn if the same items were presented in a different form. Certain response sets discovered by Cronbach are the "agreeing" or "disagreeing" response set; halo-effect, facade effect, and so on. Cronbach says on the basis of results obtained that even aptitude test results are marred by these response sets.

2.2.1 Positive Contributions Of Personality Inventories

No doubt, inventories suffer from certain weaknesses, yet, their importance cannot be thus minimized. The inventories, as a measure of personality, have made certain constructive contributions in their own right. Freeman (1963) mentions these contributions as follows:-

1) Efforts to develop these measures of personality traits encourage greater uniformity in, and precision of, trait definition and description.

2) When there is essential agreement in regard to definition of traits and terms, and in regard to behaviour and symptoms, the use of standardized inventories increases the objectivity of personality ratings and descriptions.
iii) **The use of these measures of personality encourages analysis of traits into their constituent elements, thus providing a better understanding of each trait.**

iv) **In some cases when, consciously or unconsciously, persons misrepresent themselves by their answers on an inventory, the instrument may still be clinically valuable, because the fact that they have misrepresented is significant in understanding their personalities, by means of subsequent interviews.**

v) **When the results on inventories are considered in conjunction with other evidence like individual's history and psychological interview, psychometric analysis becomes more useful.**

vi) **Answers to items may be employed as the starting point of subsequent psychological interviews, since answers to various questions and responses to various statements may be significant in themselves.**

vii) **Personality inventories are useful in the study of group trends; that is, in differentiating among groups of adjusted and maladjusted, rather than among individuals.**

In conclusion, Freeman says that the use of inventories as a means of evaluating and studying personality is justifiable, but only by professional persons who know the principles of their construction and their limitations and who are capable of making insightful analysis of behaviour.

### 2.3 Justification For The Use Of Inventories

Of late, many remedial measures have been devised by psychologists to overcome the shortcomings of self-report inventories. Emphasis at present is on using the inventories employing new techniques of item construction and scoring, thus reaping in full the advantages of this technique of measurement. This section of the chapter underlines the significant trends towards improving the inventories and
thereby making them less and less vulnerable to criticism. At the same time this section reports recent research findings on inventories which seem to strengthen the confidence of researchers in this instrument of testing.

One very grave charge against self-report inventories named as response sets by Cronbach (1946, 1950) has proved to be beneficial in itself. Recent research in the field has brought out that these response sets are coming to be regarded as possible diagnostic indicators in their own right and the validity of self-report inventories is being explored from this point of view (Anastasi, 1959).

Rundquist and Sletto (1936) made a careful study of the effect of the form of statements in inventories upon the significance of the replies to it. They concluded that when the items in a personality inventory are worded in the form of statements the responses will be more revealing if these statements provide a real challenge to thought. This has given a new twist to the framing of statements in inventories.

Elias (1951) suggests that self-rating questionnaires and inventories can be improved in validity and effect by interpreting the answers as reflections, rather than as direct measures of personality. In this way, suggests Elias, self-rating inventories can appropriate to projective measures of personality, because projective devices interpret a testee's answers as behavioral reflections rather than self-ratings of his personality.
Ellis (1953), reviewing the researches on personality inventories published between January 1946 and December 1951, reports that with the possible exception of Rorschach Test it would appear that more research and clinical use is now being made of personality inventories than of any other type of assessment instrument. Ellis found out that in most cases inventory scores discriminated significantly when used with neuropsychiatric, psychosomatic, alcoholic, age, sex, ethnic, and college groups. But these inventories did not give significant group discriminations when used with vocational, academic, socio-economic, disabled, and ill groups.

Certain subtle correction keys have been developed to overrule some of the drawbacks of personality inventories. K-Factor in the MMPI is one such device which aims at detecting the test-taking attitudes and thereby increasing the discriminative value of the test (Meehl and Hathaway, 1946).

Kornhauser (1945) published the results of a survey in which he queried specialists about their satisfaction with various psychological tests. One of the questions in the survey had to do with their satisfaction with existing personality inventories and also with the Rorschach. The results were more or less a tie, with 51 per cent expressing some degree of satisfaction with personality inventories and 49 per cent with the Rorschach.

However, inventories still dominate the field of psychological testing inspite of the criticism they have brought forward. They are by far the most used for group
testing. But it is to be borne in mind that the current inventories have shown sufficient improvement over the inventories used in the past. Research in the field has resulted in considerable refinement in these instruments of testing. With the introduction of techniques like the forced-choice and subtle scoring keys, present day inventories are competing favourably with other more objective measures of human behaviour. Research in this direction is constantly aiming at perfection.

4.4 Social Desirability Variable And Personality Inventories

In the recent years there has been an increasing emphasis on a very powerful variable exercising its impact on many personality inventories. There is a rather common suspicion among many psychologists that subjects tend to give what are considered to be socially desirable responses to items in personality inventories. This feeling has been given public expression in a recent article by Gordon (1951) who points to "the motivation of a majority of respondents to mark socially acceptable alternatives to items, rather than those which they believe apply to them." Edwards (1957) has defined this social desirability variable as the tendency of subjects to answer "yes", "true", or "agree" to statements having consensually defined social desirability, and to answer "No", "false", or "disagree" to statements having consensually-defined social undesirability. The social desirability hypothesis proposes that just as individual differences have been found
in the tendencies of subjects to respond True, Undecided, or False, regardless of item content, so also are there individual differences in the tendencies of subjects to give socially desirable responses to items in personality inventories, regardless of whether the socially desirable response is True or False. This has been regarded as the primary reason for the low validity of personality questionnaires and inventories.

Edwards (1957a) proved in a study that the probability of endorsement of an item increases with the judged desirability of the item. Edwards found a correlation of .37 between frequency of endorsement and social desirability. Milgram and Helper (1961) further provided evidence in their study that the desirability set in self-ratings can be enhanced by simply having the subjects make desirability ratings first.

Following the need for controlling the social desirability, attempts were made to determine the social desirability value of items in an inventory. Studies conducted have indicated that social desirability is typically determined by having many subjects rate each of the potential test statements for social desirability (Couch and Keniston, 1961; Salz, Reese and Ager, 1969). Items whose average social desirabilities are approximately equal over the group can then be paired in a single item. Many social desirability scales have been prepared with this aim in view, e.g., Guilford-Martin Scales (Guilford, 1943).

2.5 Forced-Choice Technique

What can be done to check the influence of social
desirability upon scores of personality inventories? One suggestion is that an attempt should be made to correct for social desirability by means of such scales as social desirability scales described above. For example, if the correlation between the social desirability scales and scores on another personality inventory is known, then the score of a person on the inventory can be predicted by means of a linear regression equation of these scores on the social desirability scores. Another possibility would be to search for items that are relatively neutral with respect to their social desirability scale values. But it may be a hopeless search, since the number of items with relatively neutral scale values is much smaller than the number of items found with socially desirable or socially undesirable scale values. Along the same lines we might seek items such that the socially desirable response is the keyed response in the scales designed to measure socially undesirable variables. For scales designed to measure socially desirable variables, attempts should be made to find items for which the socially undesirable response is keyed. Five subtle scales of the KMT are perhaps of this kind (Mear, 1943). But much further research will be needed toward the development of subtle scales to measure normal personality variables.

Another approach to the minimization of social desirability in personality inventories is the one that Edwards has used in developing the Personal Preference Schedule (Edwards, 1953b). In this inventory an attempt is made to
minimize the operation of social desirability variable by pairing statements representing different personality variables on the bases of their social desirability scale values in such a way that the social desirability scale values of the two statements are comparable. The subject is then asked to choose between the two statements. In this way it is hoped that the probability of choice being determined by social desirability considerations alone would be minimized and the choice will be made more on the bases of needs, attitudes, or perception. Edwards has named this technique as the forced-choice technique and has dealt in detail with this technique in his recent book, "The Social Desirability Variable In Personality Assessment And Research" (Edwards, 1957).

In essence, the forced-choice method involves the presentation of pairs of items that have been equated for preference value but which differentially discriminate on a criterion. A major assumption underlying this technique in personality measurement is that if two items are equally derogatory from the point of view of social group, individuals to whom one of the items is more applicable will tend to perceive that item as being the less derogatory. Thus, if an individual, who is motivated to make socially acceptable responses, is forced to select one of the items as being least like himself, he will select the item that he perceives to be most derogatory, which will tend to be the item that is less like himself (Gordon, 1951). It is assumed that the converse holds when he is forced to select one of a pair of complimentary items as being most like himself. Sometimes, sets of 3, 4, or
5 items are used and the subjects may be forced to make both a most and a least-like-himself choice for each set.

A typical forced-choice item consists of two or more statements, each measuring a different factor and all equated in social desirability. The testee is instructed to pick the statements most applicable to himself. One rationale for such a procedure goes as follows: since the statements are of equal social desirability, the testee cannot make himself look better by choosing one, rather than another of the statements; consequently, he will answer honestly, thus reducing the chances of faking or manipulation. Obviously, the equating for social desirability is the critical manipulation in the construction of a forced-choice test.

Forced-choice is especially useful as a means of reducing facade effects. The popularity, i.e., social desirability, of each statement can be determined in a preliminary study. The test constructor thus forms sets of statements having equal desirability. The subject who wants to "fake good" is outwitted by the forced-choice between equally desirable traits. He is required to describe which good statements are most characteristic of him, and which faults he suffers to the greatest degree. The subject cannot say he likes everything, or, withhold information by checking "indifferent".

The forced-choice demands information regarding specific attitudes, traits, and interests. Amount of information obtained is also increased in this manner.
The construction of a forced-choice inventory requires two principal types of information regarding each descriptive phrase or statement, e.g., its social acceptability or "preference index" and its empirical validity or "discriminative index." The first can be found by ascertaining the frequency of choice of each item in a representative sample of subjects. The second is determined on the basis of the specific criterion which the inventory is designed to predict. For the determination of a discriminative index for each response weights may be assigned. These weights can be positive, negative, or zero, depending upon whether the given response occurs significantly in upper, lower, or neither criterion group. For example, if successful salesmen choose a certain response significantly more often than unsuccessful salesmen that response would receive a positive weight in the key, and so on.

Some writers, e.g., Gordon (1951) have assumed a projective principle to operate in forced-choice situations. Briefly, the argument is that those alternatives perceived by the subject as more socially desirable (i.e., the alternatives he would like to attribute to himself) tend to be those more like himself (Saltz, Reece and Ager, 1962).

The forced-choice technique has been utilized in the development of the Jurgensen Classification Inventory (Jurgensen, 1944). Another example of forced-choice technique is provided by Personal Inventory (PI), developed by Shipley and his associates (1946). This instrument was devised for psychiatric screening by the Navy during World War II.
A relatively recent application of the forced-choice technique is to be found in the Gordon Personal Profile (1953) designed for use in Counseling, screening, and selection, being applicable to high school, college, and adult groups. This technique has also been applied to the construction of rating scales. This type of rating scale has been developed for use by supervisors in the merit rating of industrial employees (Notes from a Conference on Personnel Measurement, 1951). The forced-choice technique has also been incorporated into the current form of the Army Officer Efficiency Report (Sisson, 1948). Although such rating scales are useful in certain situations the forced-choice technique appears to be less effective when applied to ratings than to self-report inventories (Anastasi, 1959).

2.5.1 Superiority Of The Forced-Choice Technique

The forced-choice item form offers several advantages over traditional type of questionnaire or inventory item. First, by equating paired alternatives in social acceptability and apparent desirability for the population in question, the possibility for dissembling and faking is minimized. This is one of the principal appeals of the forced-choice technique.

Secondly, it reduces ambiguity and related difficulties in the interpretation of items. For example, in traditional Yes-No type of item, difficulty is experienced in choosing a response alternative because the behaviour in question sometimes appears to be falling in between the clear-cut Yes and No answers. Nor is the inclusion of a ? category very satisfactory solution, since this may indicate failure to
understand the question, uncertainty, inapplicability of the item, and so on. Use of terms designating amount, degree, or frequency, such as, "often", "frequently", "usually", "rarely", and the like also tantamount to ambiguity. By requiring a relative rather than an absolute judgement, the forced-choice technique reduces the sources of ambiguity. In this item form, the individual is called upon to state only which of the two descriptions is more nearly applicable to himself.

Gordon (1951) carried out a study to compare the validities of the forced-choice and questionnaire methods in self-report personality measurement. In order to obtain a meaningful comparison between the two methods he constructed a personality questionnaire and a forced-choice test both of the same factorial structure and containing, as far as possible, the same item content. Results revealed that the forced-choice method was more valid in measurement of four of the personality traits under reference in the study. Gordon attributed this to the superiority of the forced-choice method.

Moreover, this technique considerably reduces, if not eliminates, the operation of rater-bias. Besides, it may be possible to formulate more subtle items whose validity is approximately equated even for experienced supervisors. The forced-choice technique simply raises the level of sophistication needed for test construction.

2.3.2 Difficulties Involved In The Forced-Choice Technique

In spite of its varied applications and apparent
advantages there are a number of difficulties in the construction of a forced-choice test. Firstly, it requires more time to obtain an equal number of responses. Secondly, subjects feel insulted sometimes when they are forced to make choice out of a set of equally undesirable pairs. This might affect the rapport. But at the same time it cannot be helped because nature of the technique is such. A third difficulty lies in finding out the social desirability value of the individual statements and pairing them in such a manner that items in a single pair should be equal in their desirability or undesirability value. However, there are individual differences in social desirability of statements, and the effect of such differences has never been adequately evaluated. Saltz, Reece, and Agar (1967) carried out an investigation to find out the effectiveness of the forced-choice technique in eliminating the effect of individual differences in social desirability of test items. Results obtained suggested that the forced-choice might be treated as successful in eliminating group standards of social desirability from the forced-choice items yet the problem of evaluating consequences of individual social desirability upon the test items remains to be solved.

Considerable research is needed for the development of techniques for constructing optimal forced-choice tests. But since the forced-choice method has proved itself extremely useful in several fields of application further research toward the development of a forced-choice theory is of great value.
2.6 Application Of Forced-Choice Technique
To Identify Indisciplined Students

As indiscipline is a derogatory behaviour condemned by the society, it directly comes under the influence of social desirability variable discussed in the preceding pages of this chapter. An account of the forced-choice technique given above has demonstrated the utility of employing this technique for the measurement of behaviour in situations where the operation of social desirability response set is apprehended. In view of this and the foregoing discussion it was thought highly proper to reap the advantages of forced-choice technique for identifying indisciplined behaviour. An inventory developed on these lines should go a long way to neutralize the impact of irrelevant response tendencies which are likely to pop up when a negative aspect of behaviour, such as indiscipline, is to be measured.

Next chapter will deal in details as to how this forced-choice inventory was actually prepared.