CHAPTER 4
DEVELOPMENT OF THE INVENTORY

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DEVELOPMENT OF THE INVENTORY

It is the experience of all that the individual has to adjust to the other members in the family, in the school, in the community, etc. And, of course, one expects the other members to make necessary adjustment with him, also. As per doctrine of individual differences, everyone knows that a few people will be very adept at making these adjustments, a few will seem incapable of making any degree of adjustment whatsoever and the rest will fall somewhere between the two extremities (40). So the main theme of the present work is to develop self-administering personality inventory attempting to measure the degree of adjustment in general and specific in the important life areas - health, emotional, family, social and educational. The inventory concerned with the diagnosis of the presence or absence of adjustment which is basic to an individual adjusting himself in specific situation.

The utility, importance and success of any psychological test depends upon the representativeness of the sampled behaviour which is measured by the test (4). So in view of this, to ensure adequate coverage to the behaviour under consideration, all the possible and likely sources giving information about the conflict situation for an individual, were approached. For the purpose of preparing the universe of items indicating various degrees of adjustment of an individual, following sources were tapped:

a) Subjects' freewriting,
b) Expert's opinion,
c) Group discussion with subjects,
d) Personal interview of the subjects and
e) Relevant studies and other inventories.
a) Subjects freewriting

The degree of adjustment or maladjustment is generally expressed by subjects in terms of problems faced by them in day to day dealing. Here the degree of adjustment is assessed in terms of problems faced by an individual. The evidence of large number of problems is indicative of maladjustment and vice versa (29). In view of this a group of about 100 subjects of both the sexes were approached for freewriting. The sample of 100 subjects was drawn from colleges and post-graduate departments of the Gujarat University. Out of this 100 subjects 50 were staying in the hostels and 50 were living with their families. This division is likely to provide various kinds of information.

Subjects were approached in small groups, the size of which varied from 5 to 10 only. All the students were supplied with a blank sheet of paper the size of which was 11" by 8½" (a copy of the blank sheet). They were asked to write their sex and names of the institutions. They were asked without any suggestions or limitations or structuring whatsoever to write or to list all sorts of problems - worries, fears and anxieties - or to describe problems situations, that bother them much (8). This procedure ensures the cooperation from subjects who hesitate in expressing themselves in person or where the possibility of identity of the person could be traced.

b) Interview with experts

For the purpose of obtaining information concerning conflicting situations arising from day to day dealing among the college and post-graduate
subjects, some experts were interviewed. The experts whose opinion were sought in this respect were either in charge of the student union, or in charge of the various activities organized by the students unions of the colleges and post-graduate departments of the university, educational and vocational counsellors, educationists, social workers and psychologists (10, 29). About 10 experts falling in these categories were interviewed.

The information thus collected was likely to reveal the conflict situations as perceived by others who are in touch with college and post-graduate subjects.

c) Group discussion with students

Group discussions were arranged with subject of both the sexes in small groups in formal and informal situations (10, 29 and 69). The discussions were centered around the fears and worries that they were facing all the time. Their predominant fears and worries were around education, family, social and insecurity in general. Mainly, the participating subjects were from the various post-graduate departments of the University.

The crux of the group discussion was recorded by the author. The nature and type of conflict situations were derived from the data.

d) Personal interview of the students

Though subjects were approached in small group for freewriting and group discussion, the present author thought it wise to hold the personal interview with some subjects of both the sexes to have more information about their personal and deep-seated problems which are likely to be inhibited during group discussion and freewriting (114).
A group of 50 male and female, college and post-graduate subjects, were interviewed for this purpose. Only subjects willing for personal interview were included in the sample. They were interviewed either in the institutions or in the guest room of the hostels. They were just asked to discuss their difficulties and worries. The interview was more or less of an unstructured type. (A copy of the interview schedule is given in Appendix C)

The interview started with a discussion of problems in general. Subsequently, they were found to discuss their personal problems also. The average interview time with each student was about two hours.

Relevant Studies and other inventories

During the last decade, several researches have been undertaken in this area either as a part of the degree requirements (20, 51, 90, 103 and 105) or as an individual research undertakings (67 and 23) or by an institution (22).

To enlighten the community, parents and educationists about the problem of students adjustment a state level seminar on students problems was jointly sponsored in 1969 by the S.M. Institute, Ahmedabad and the Gujarat University. The parents, students, teachers, and social workers participated in it. Various views expressed during the seminar brought out the significance of students adjustment - general and specific - and contributed considerably to its understanding.

From these researches and the note on the discussions held at the aforesaid seminar, several areas of individual conflict among the college
and post-graduate were analysed and relevant items concerning the conflict situations, indicating various degrees of adjustment were prepared. Further, certain inventories – Bell Adjustment Inventory (14), Minnesota Multiphasic Personality Inventory (54), Personal Data Sheet (114) and Students Problems Inventory (8), School Adjustment Inventory (105), Youth Adjustment Analyzer (16), etc., were also used as sources for drawing necessary information.

ITEM POOL

According to Bell (14) the first list of items indicating adjustment appeared in 1905 in psychological literature by Heymans and Wierma. It was prepared for Dutch physicians in determining the maladjustment of their patients. The next such list was prepared by Hoch and Arnsden placing more emphasis upon sexual adjustment. F.L. Wells in 1914 prepared a similar list directly based upon earlier lists. He also partly depended upon the personal traits list presented by Cattell and Davenport (40). The more systematic step in this area was that undertaken by Woodworth (114) and he prepared his Personal Data Sheet. His Personal Data Sheet could be considered as the precursor of practically all personality and adjustment inventories now in existence (40).

All the information collected through various sources such as subjects' free writing, expert opinion, group discussions with various subjects, personal interview of the subjects, relevant studies and inventories – foreign and Indian – were analysed and about 3000 items concerning various situations and indicative of maladjustment were prepared in Gujarati to suit the self report inventory by the present author. The care was taken to make each item simple and direct. Repetitions of ideas, ambiguous
words, double-barelled items were eliminated. This procedure reduced the total number of items to about 650. These 650 items were individually considered by the present author in consultation with his co-students working for Ph.D. in Psychology and were classified into five different areas under consideration.

The list of items thus prepared for each area was given to a panel of five experts having sufficient training in clinical psychology for editing each item for its face validity as per given pro forma. The pro forma is given in Appendix 8. They were also asked to comment on structure, content, expression, relevance to the purpose, and scoring for maladjustment. Further, the list of items was presented to a small group of subjects of both the sexes with a view to finding out ambiguity and removing them.

PRELIMINARY TRYOUT

Thus the preliminary form for each aspect, with necessary instruction and illustrations for filling it, were prepared separately. The total number of items for health, emotional, family, social and educational adjustment were 48, 93, 79, 75 and 43 respectively. Items in each form were arranged randomly. (See Appendix I).

Each form was administered to a sample of 200 subjects of both the sexes independently drawn from various educational institutions. (See Appendix J). The administration was carried out in small groups. Subjects were asked to give their comments on any aspect of the inventory. Further, a record was also maintained concerning their queries raised during administration with a view to incorporate them in the subsequent form.
From the administration of each form, items showing satisfactory internal consistency (4) as revealed by point biserial correlation (50) were selected for further item analysis (The formula used for calculating biserial correlation is given in Appendix 2).

This step has eliminated remaining ambiguous, double barrelled and misleading items and gave 135 items for further analysis.

SCORING

Two types of scoring systems, viz., weighted and unweighted, are usually used for this type of personality inventory. The correlation with weighted and unweighted scores was observed by Bell (14) between 0.95 to 0.97. It indicated that the use of either system is satisfactory. Therefore, the present author adopted the simple unweighted system in scoring at this inventory. The scoring key is given in Appendix V.

The inventory gives total score and five different scores – individual score for each area indicating degree of maladjustment. The scoring of the inventory consisted of just counting total number of circles to 'Y' or 'N' put against each item as per key. The minimum score possible is zero and the maximum of one hundred. Higher score is indicative of more maladjustment.

PLAN OF THE INVENTORY

A final form was prepared consisting of 135 items falling into five different areas – health, emotional, family, social and educational adjustment were 22, 40, 32, 25 and 16 respectively. The items in the final form were randomly arranged. The format of the inventory was simple. It was printed
pm a single sheet of foolscap paper in the form of a four page folder. The first page contained space for general information about the subject and illustrations for filling it along with space in the form of table for entering score for each area and the total inventory. On second, third and fourth pages, the items were printed in random order. The inventory may be scored as per key for total inventory and for specific areas. The inventory is given in Appendix K.

INSTRUCTION FOR ADMINISTRATION

The inventory is self-administering. All directions necessary for filling it are given on the first page of the inventory. It may be given to an individual or a group of individuals. There is no time limit for completing the inventory. It would ordinarily take about 40 minutes of the subject. It is necessary to have a good rapport between the person administering and those taking it. The results of this inventory should be treated as strictly confidential. If necessary they should be revealed to the right person for helping the individual subject (s).

ITEM ANALYSIS

One hundred and thirty five items were subjected to statistical analysis. For this purpose, it was administered to 400 subjects drawn from colleges and post-graduate departments of the various institutions. The list of institutions is given in Appendix K. The inventory was administered in small groups. Items having poor discrimination (53) were rejected for the final form. Further, under the criterion of applicability, items which were applicable to only 25 per cent of the group were also
eliminated from the final form. Finally, one hundred items satisfying the
criterion were retained in final form. The final form is given in Appendix
N. The verbatim English translation of the items included in the final
inventory form of the inventory is given in Appendix N.

EQUIVALENT FORM

The present author also intended to develop simultaneously equivalent
form of the present inventory. The items for the equivalent form was drawn
from the original pool so as to have common variance for both equivalent
form and the inventory. The equivalent form is given in Appendix O.