CHAPTER 11

SUMMARY AND CONCLUSION
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11.1. **General summary and major findings:**

In the foregoing chapters the adjustment problems of adolescent girls and the construction and standardization of the Adjustment Inventory AB have been described. This is perhaps the first effort to standardize a personality test to use with the adolescent girls in the north east India.

The main aim of this study has been to study adjustment problems of urban adolescent girls developing at the same time and for the same purpose a standardized adjustment inventory. Adjustment is a continuous process of meeting one's own environmental demands by maintaining a balance between one's needs and environmental demands. Inability to meet personal and environmental demands on the other hand, leads to maladjustment. Adolescence is the most important period in human growth and development, and the individual during this period goes through a continuous process of adjusting in order to cope with the changes of the period. As a result of this a large number of adjustment problems appear from various sources, such as — physiological, social, emotional, sexual etc. To guide the adolescent towards better adjustment, parents, teachers or other members of the society, who are responsible for guiding them, should have a thorough understanding of the problems experienced by the adolescents. In respect to adjustment
The main problem areas of the adolescent girls are — home, school, social, emotional and mental, religious and moral, health and sexual. To make the proposed inventory scientifically based, a batch of girl students of Guwahati had been approached to write down their problems as experienced by themselves. In the first instance a sample of 66 girls were asked to write an essay on their personal problems in nine suggested areas of adjustment, namely — home, economic, school, study, social, emotional and mental, religion and moral, physical and sexual. Then another group of 368 girls were also approached to state individually their five major problems which disturbed them most in preferential order. Some teachers and guardians were also consulted. A careful checking of all the essays and problem-papers gave a total number of 147 and 164 problems respectively. Home and school were found to be the most significant areas, where the maximum number of problems existed. It was observed that home problems mainly arise from restrictions parental conflicts, unsuitable home environment etc. "Restriction of movement" was the most frequently stated problem. 54.39% girls reported this as one of their most important problem. Some other problems mentioned by them in this area were — frequent presence of guests 32.11%, household duties 29.29%, congested rooms 29.27%, crowded family 25.81%, quarrel among family members 21.28%, illness of family members 12.46%,
parental discord 6.44% etc. In school area the sources of problems observed were different facilities and difficulties in school, teacher-student conflicts and favouritism. "Not having library facilities" was the most frequently stated problem (55.14%). Some other problems stated are not having school field 48.48%, not having sports facilities in school 38.72%, not having sanitary facilities 24.29%, not having students' common room 26.58%, teachers having favouritism 20.58%, teaching failure by teachers 20.58%, aggressive teachers 14.71%, not having scope for choosing the desired subject etc. In the same way in study area the adolescent girls reported important problems such as unsuitable home environment for study 39.64%, not having adequate place to study 39.64%, unable to concentrate 12.30%, daydreaming while studying 10.13%, poor memory 10.67% etc. Surprisingly, the number of students reporting about their failure to cope with academic or school work is much less, i.e., beyond expectation, which is perhaps one major problem area of students. Several social problems were also mentioned by the adolescent girls. Some of these were — having bad neighbours 54.67%, not having neighbour friend 12.14%, donot know how to get along with others 11.42%, dislike conservative attitude of neighbours of the society 9.09%, lack of proper understanding between neighbours 9.20% etc. Regarding economic problems "unable to get desired things" was the frequently stated problem (36.38%). Besides this economic paucity 20.93%, unable to get sufficient food 20.31%,
unable to get books and papers 13.54% etc., were some other problems reported by the adolescent girls. It was also observed during the study that some emotional and mental problems also often disturbed the adolescent girls. Some such problems stated by them are — having bad temper 28.29%, worrying 15.15%, fear 10.28%, day dreaming 6.06%, frustration 6.60%, inferiority feeling 4.11% etc. They stated certain moral and religious problems also such as dislike religious customs 12.66%, dislike caste system 11.99%, not having faith in religious superstitions 7.84% etc.

Several physical troubles were also reported by the adolescent girls in the essays and problem papers. Some of these were — headache 28.38%, cold 25.16%, coughing 11.96%, eye trouble 13.98% etc. Sexual problems although become most serious and disturbing during adolescence, it was observed that most of the girls did not like to mention such problems perhaps because of their shyness or fear of being identified by others. Still many of them mentioned problems such as — dislike to obey social rules during monthly course 8.50%, develop interest for opposite sex 4.54%, feeling uneasy during monthly course 3.03%, facing difficulty for physical growth 3.03% etc.

An analysis of all the problems stated by the adolescent girls reveal that the lack of adequate environmental facilities gives rise to most of their problems. In home parents or other members of the family generally donot realise that their adolescent girls may face certain problems.
due to their critical period of development. They generally become conscious about physiological development of their daughters and put various restrictions on their behaviour and movement but remain ignorant towards psychological changes and development. Upon attending puberty, for example, the girls' freedom is generally checked to a great extent and they have to face the ordeal of a complete change of attitudes among people in the immediate environment. This type of attitude gives rise to social problems also. Social disapproval of various activities of adolescents (for example, heterosexual activities), which is unfortunately very common in our society, is a source of many problems of both social and emotional nature. Besides these various physical inadequacies, such as in home—not having suitable place for study, unable to get desired things because of economic paucity, unable to get sufficient food, books, papers, and in school—not having library, field, sports facilities, common room, sanitary facilities, etc., have been observed as one of the major sources of problems. Our adolescent girls, thus, lack proper support in home, education, economy and social approval in most of their emotional areas and these have become the sources of problems and conflicts.

On the basis of the stated problems mentioned above, the preliminary draft of the inventory was constructed with 232 items. After that to analyse the items scientifically, the preliminary draft was tried out with a representative sample of population for whom the test was ultimately designed.
The sample was fixed at 370 by following recommendations of Kelley and other psychologists. The items of the inventory was constructed in such a way that every 'Yes' answer to an item indicated a problem in adjustment. Therefore no special scoring key was developed. The total adjustment score for each individual was derived by adding up all the scores she marked 'Yes' in all the areas of adjustment. Thus a high score in the inventory indicated poor adjustment while a low score indicated good adjustment.

After the tryout, all the test booklets were prepared for item analysis. As the proposed test is a personality test, only the index of item discrimination was utilised by using the Item Analysis Chart prepared by Harper, Dasgupta and Sangal (1962). Every item was correlated with the total score of the inventory and also with the total score of the area to which a particular item belonged. Analysis of responses showed that a large number of items worked well, i.e., almost all items yielded positive discrimination values. The final draft of the inventory was then carefully constructed by rejecting such items having discrimination indices below .20 and by reducing the number of areas from nine to five. The total number of items were fixed at 100 so that the test could be administered within an ordinary school period of 35 to 40 minutes. Before finalising the draft again, intercorrelations among the areas (Ref. Table No. 7.2) were computed to see the amount of overlapping among the areas. This has yielded moderate to moderately
high intercorrelations with a range from .43 to .70, showing that a certain amount of overlapping are there but it is not unusual for this type of testing. Then the two most essential characteristics, i.e., reliability and validity of the test were determined. Reliability was determined by the test-retest and split half method. The retest coefficients ranged from .82 to .94 and split half coefficients ranged from .91 to .94 which were sufficiently high and was considered adequate.

Regarding validity of the test, there is no doubt that the test has sufficient content validity as the items of the test are mainly derived from what the students themselves reported as being their problems. Again in analysing the items, the validity coefficients of each item was determined by correlating each item with the total score and the total area score and only those items were included in the inventory having discrimination indices .20 or above .20. Moreover, the criterion-related or empirical validity of the inventory was established by correlating the inventory scores with Sinha and Singh's Adjustment Inventory for School Students and also with teacher's ratings. The validity coefficients yielded in these correlations range from .73 to .75 in the former and .56 to .59 in the later one and was considered adequate.

After establishing reliability and validity of the test, the test has been standardized with a sample of 2481 girl students of Gauhati as it is the biggest city of Assam and students represent from all sections of the Assamese community.
All the standardised procedure laid down for administering the test was fixed. The distribution of scores of the standardisation sample has been found to be approximately normal (Ref. Table No. 10.2). Mean, standard deviation and mean differences for each class and also for the total sample were calculated. The means of the classes included in the standardisation sample show a gradual increase which signifies that the number of problems increases with age. Therefore $Z$ ratios for the differences between means (Ref. Table No. 10.3) were computed to show the significance of differences of means. Results reveal that the difference between the means of class VIII and IX and Class VIII and X are significant at 1 percent level but the difference between means of class IX and X are not significant. This signifies that the girls of class VIII have much less problems than the girls of class IX and X. With age and maturity the girls' understanding and insight into their problems increases and so class IX and X girls encounter more problems than the girls of class VIII. After that the quartiles for each class and for the total sample have been calculated to place the students under a definite category (Table No. 10.2). Students fall within $Q_1$ are well adjusted, above $Q_1$ and below $Q_3$, i.e., above and below mean ($Q_2$) are average and above $Q_3$ are ill adjusted. Quartiles have been computed for each area score also both classwise (Ref. Table Nos. 10.4, 10.5, 10.6) and total scorewise (Ref. Table No. 10.7) in order to place the students under a definite category regarding each area score.
Theta classifications, however, are given tentatively for clinical and diagnostic use of the inventory and further alteration would be made, if necessary, after large scale use. Here the well adjusted group is the best group and guidance is not necessary for them. The second group or the average group may or may not be given guidance. But the last group, i.e., the ill adjusted group must be given guidance after each case is individually studied, whether it belongs to areawise score or total score. If the student is ill adjusted according to total adjustment score, her overall adjustment should be studied and if she is maladjusted in particularly one or two area, guidance should be provided accordingly.

Areawise distribution of scores (Table No. 7) of the total sample of 2481 girls showed that the area of emotional and mental and the area of school and study are the two main areas where the adolescent girls encounter maximum number of problems. The next problem encountering area is home. Although during the preliminary study the school and home were found to be the most significant area, results of the standardisation sample revealed that emotional and mental is also one of the most problem encountering area. This happened perhaps because during the preliminary study the girls were asked to write their problems themselves and without mentioning any particular problem. Therefore, spontaneous identification of emotional — mental problems may not be expected of adolescents for their lack of an insight into own mental state and
processes. But this time as they were supplied with ready-made questions mentioning problems, they could realise their problems immediately and responded accordingly. The physical and sexual area was found to be less problem encountering area and the area of social, religious and moral has occupied the middle position in between the home and physical and sexual area. Classwise analysis of problems revealed that the girls of class VIII (Table No. 10.4) encountered maximum number of problems in the area of home and school and study. The next problem encountering area is emotional and mental. The social, religious and moral and the physical and sexual area took the fourth and fifth positions respectively. In class IX and X (Table Nos. 10.5 and 10.6) the emotional and mental and the school and study area were found to be the most problematic area. The area of home occupied the next position and the area of the social religious and moral, and the physical and sexual took the fourth and fifth positions respectively. Finally both classwise and total scorewise norm tables have been provided for the evaluation of test scores.

Thus all the scientific procedures for test construction and standardization were followed in constructing the Adjustment Inventory AB. Almost all the calculated results have shown expected values within limits of acceptability including reliability and validity. The distribution of standardization sample also found to be approximately normal, which reveals that the test is well enough...
to distinguish ill adjusted from the well adjusted. If the test is used properly, i.e., by following all the standar-
dized procedures for administration, there is no doubt that it would be helpful to anyone interested in the right growth of adolescents. In the present state it is applicable to Assamese speaking urban adolescent girls of approximately 12-16 years age group, more particularly those studying in secondary school. It is hoped to be useful in the following ways—

11.2. Usefulness of the test:

(a) Use by teachers:

The Adjustment Inventory AB will be very useful for teachers to spot out the adolescent girls having problems in different areas of life. Modern educational practice has laid emphasis on understanding of each individual student. Understanding, however, does not mean knowing about the student's achievement and abilities in school only, but also her problems in different areas of life. As adolescence is the most problematic period of life, problems spring from various sources which may hamper the regular or expected progress of an adolescent girl in her school. A student whose mind is seriously preoccupied with problems can never progress in school work properly. The teacher, however good he may be and trying to impart instruction to the students with all the resources at his command, can never succeed till a student is free from problems. The Adjustment Inventory AB will be helpful for teachers for systematic
identification of problems of an individual student or a
group of students. With the information provided by the
inventory, the teacher will be able to find out the parti-
cular area, where a student faces greater number of problems.
Being well informed, he will be able to give advise and
assistance to solve the students' problems to a great extent
and can guide them towards self understanding and maintenance
of healthy adjustment. The knowledge of adjustment problems
will also help the teacher to change or modify his method of
teaching to meet the needs of the students. In his general
dealing in classroom also this knowledge will help him to
build up a healthy relationship with the students.

(b) Use by parents and guardians:

The Adjustment Inventory AB will be helpful for
parents and guardians also. Like the teachers, parents and
guardians also should have common concern for the healthy,
happy and successful development of adolescents. Parents
in our society exert considerable influence in the develop-
ment of future hopes and aspirations of their children for
in most cases children accept their parents' wishes and
desires. Responsibility of educating children rests not
only on teachers but also on parents. The work of teachers
in the school should be supplemented adequately by parents
at home. Therefore they should have a thoroughgoing under-
standing of the problems and difficulties their daughters
may face during this period. By using the Adjustment
Inventory AB the parents will be able to get an overall understanding of the problems of the adolescent girls. After knowing the problems, they will be able to help the adolescent girls in solving their problems by information, advice and suggestion. Parents can also actively help teachers and counsellors in their guidance activities by presenting their own viewpoints on the related issues and thus can exert healthy influence in the determination of guidance policies. Their influence, thus, may be effectively utilised for providing scientific guidance to the students.

(c) Use by school administrators:

School administrators also can benefit by using the Adjustment Inventory AB. As the test can be administered groupwise, the school administrators will be able to obtain an overall picture of the different common problems and concerns of the students so that they can draw some appropriate plans and programmes to minimize their burden. Such may be the problems as are associated with curriculum, extracurricular activities, teaching failures, deficiencies of the school etc. At the same time they will know different specific problems concerning different students for which they may contact with parents and teachers for effective control and resolution of those problems. Moreover, they may arrange some discussions between teachers, parents and other adult members of the society to make them aware of the problems and needs faced by the adolescent girls. This
will also strengthen the school-community relationship which is very much essential to provide a healthy atmosphere for the growing.

(d) **Use by guidance workers**:

The use of personality test in the field of scientific guidance of pupils has received world wide recognition. The school authorities often have to face numerous problems of individual guidance, each require a particular line of treatment for the restoration of normal mental health in school. This types of problems can be effectively solved only when the counsellor knows each case in its proper perspective. The Adjustment Inventory AB will help the counsellor to obtain a quick estimate of the different problems of an individual student or a group of students. With the information provided by the test, the guidance workers can easily and clearly find out where a student need some sort of help that they can provide. The Adjustment Inventory AB would, thus, facilitate in conducting both individual and group guidance programmes and at the same time it will serve as a prelude to a counselling interview.

(e) **Clinical and diagnostic use of the test**:

The Adjustment Inventory AB will be helpful for clinicians also. Now a days the technical help of the psychologists are being increasingly demanded to understand and advise upon psychological difficulties of a large number of students. Although the Adjustment Inventory AB in no way pretends to
diagnose any type of psychoneurotic disorder, it segregates the ill adjusted from the well adjusted, who may stand in need of psychodiagnostic study and counselling. With the help of the inventory the clinicians will be able to locate the exact area of problem of the adolescent girls and thereby will be able to find out the origin and the background of problems so that they can be given proper guidance.

(f) Future research:

Researches in psychology and education require the use of valid and reliable tests of personality for studying the nature and kinds of problems faced by students at different age levels, of different sociocultural strata, and varied interest patterns, intelligence etc. There is a great field of experimentation in psychological and educational problems of adolescence with special reference to conditions prevailing in the region, as no such work has been done in this direction until now. As the test covers all the major problem areas of adolescent girls, it will be very easy to discover problems in different areas of their life. With the information provided by the Adjustment Inventory AB they will be able to throw new light in different aspects of adolescent growth and development.

11.3. Limitations of the test:

In conclusion, it would be worthwhile to point out several limitations of the test so that any change in future could be done along better lines. Although, every possible step was taken to make the Adjustment Inventory AB
a perfect one, still it has certain limitations, which are obvious and commonly unavoidable for this type of test.

The first and foremost limitation of the test is that it is standardized for urban adolescent girls only. A test for both boys and girls, however, would have been more useful than the proposed one. But in order to do the study more specific, it was confined to adolescent girls only. It is hoped to take a further plan for necessary revision to make it useable with both boys and girls in future.

Secondly, the absence of age norm is another limitation of the inventory for which one would not be able to interpret the scores in terms of age, i.e., the rate of problems in relation to age of students. In our schools, generally, students of different age levels study in the same grade and it is very difficult to distinguish them according to their age levels. Although, in the test booklet they informed about their age, many of them admitted that they did not know their actual age. The school authorities also could not give any reliable evidence. Since no reliable evidence of age could be obtained, the idea of age norm had to be dropped.

Thirdly, another limitation of the inventory lies in the fact that the use of the test will be fruitful only if the individual or the group are aware of their problems and are willing to cooperate in revealing them. The adolescent girls, sometimes are not aware of any particular problem and it is very difficult to make them aware what their problems are. They may have many conflicts, doubts, confusions in their
mind and also many other problems, but if the problems do not exist at the moment they might deny that they have any problem. Again, many girls may not wish to disclose their privacy for fear of being exposed in front of others. These defects, however, could not be overcome totally, but the "introductory remark", which has been designed to deliver before administering the inventory would solve to a great extent.

Finally, interpretation of items vary from person to person. Although the items of the inventory have been constructed in very simple language, i.e., as far as possible in the language of the students, still, misinterpretation of items, for some items, at least cannot be avoided. Of course, the respondents are instructed to remove doubts regarding statements or words if it arises.

Thus, one cannot avoid limitations in constructing such type of test. But looking at the usability of the test, it is sure that it would be helpful to any person interested in the right growth of adolescents. Thus, it is expected that the present work will have its place in the advancement of education and research in the region.