CHAPTER VII
OBSERVATIONS AND CONCLUSIONS

7.0 INTRODUCTION

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discuss the different methods of measuring attitudes and selection of the right method. After discussing the theoretical aspects, the related researches were reviewed which gave an insight into the field of attitude. The review of the previous studies also helped the investigator in preparing valid and reliable attitude scale for measuring attitudes of student teachers towards population education.

In the next chapter, the investigator described the various steps taken for the construction of the attitude scale. With the help of experts the investigator initially prepared 233 statements. Statements which were ambiguous, or depicting facts were then discarded after discussing with the guide. The remaining statements that is 178 were administered to a sample of student teachers. Only 70 statements out of 178 were selected on the basis of significant discriminative value. All the necessary steps in this direction have been reported in a greater detail in chapter III. The instructional material on population education was also prepared. The various aspects of the instructional material have been reported in details in chapter IV. The reliability of the attitude scale has been determined by test-retest method, split-half method, Rulon method, parallel form method and Flanagan method.

Besides this, the investigator has also made certain
7.2 OBSERVATIONS

While administering the attitude scale it was found that the most of the student-teachers were engaged in reading the scale. It was also observed that the student-teachers co-operated enthusiastically. These observation got support from the informal talk with the trainees after the administration of the scale. The teachers and principals were eager to know the result. The student-teachers, their lecturers and principals expressed that this is a new type of test and is interesting and useful to know about population concept. In certain colleges even principals remained present throughout the administration of the scale to see how student-teachers write their answers.

Besides this, certain other observations were made during the experimental stage of research.

While the experiment was in progress it was found that the most of student-teachers answered the questions with full confidence. They took the adjunct programme reading. They were also very eager to read the reading material and to see the exhibition of charts as well as to
listen the cassette. This led to say that the adjunct programme reading material, charts, cassette were very interesting.

Inspite of the heavy work schedule, the principals of the primary teachers training colleges provided the researcher all the facilities and conveniences to conduct the experiment for one week. The principals and lecturers of the colleges voiced informally that the programme prepared and given to the student-teachers by investigator would help the student-teachers in improving attitude and bringing awareness about the population education and population control.

The student-teachers were very eager to read the material prepared by investigator and also have full confidence in their responses. They were also very eager to co-operate and participate in taking the scale. This led to say that the student-teachers had good faith in the programme.

7.3 CONCLUSIONS

The following few but important conclusions are drawn which perhaps would be helpful to the teachers, dealing with teaching of population education in training colleges. Even it would be helpful to principals and parents too, who are eager to have better knowledge of
7.3.3 **Replication-I  Attitude of Women Student-teachers**

The study of mean score of replication-I reveals that the obtained $F$ is 208.84 on table 6.18 which is highly significant beyond 0.01 level. It is therefore concluded that the mean difference between experimental and control group could not be attributed to mere chance factor. It is due to the treatment given to the experimental group. This led to say that the instructional material prepared on population education has proved effective even for developing attitudes of women student-teachers towards population education.

In the present research, Instructional Material on population education includes the charts, adjunct programme, audio cassette and slides. These materials have proved effective even in developing attitudes of women student-teachers towards population education.

7.3.4 **Replication-II  Attitude of Male Student-teacher**

The study of mean score of replication-II reveals that the obtained $F$ is 70.93 shown on table 6.20 which is highly significant. It is therefore concluded that the mean difference between experimental and control group could not be attributed to mere chance factor. It is due to the treatment given to the experimental group. This led to say that the instructional material prepared on population
education have proved effective for developing attitudes of male student-teachers towards population education.

In the present research instructional materials on population education include the charts, adjunct programme audio cassette and slides. These materials have proved effective in developing attitudes of male student-teachers towards population education.

7.3.5 Replication-III Attitudes of Male Student-teacher

Table 6.22 reveals that the obtained $F$ is 36.77 which is significant. It is therefore concluded that the mean difference between experimental and control group could not be attributed to mere chance factor. It is due to the treatment given to the experimental group. This led to say that the instructional material prepared on population education has proved effective for developing attitude of male student-teachers towards population education.

In the present research instructional materials include the charts, adjunct programme, audio cassette and slides. These material have proved effective in developing attitudes of male student-teachers towards population education.
7.3.6 **Attitude of Student-Teachers of Urban and Rural Area**

The study of table 6.24 reveals that the F ratio of the first main effect that is treatment given to the group is 236.55 which is highly significant. Therefore, it is quite reasonable to conclude that the treatments given to the experimental group have proved effective as the mean of the experimental group is greater than the mean of the counter group.

The obtained F ratio of second main effect that is area is 3.18 which does not reach the table value of significance at 0.05 level. It is therefore concluded that the instructional materials prepared on Population Education has proved effective equally for student-teachers coming from urban and rural area.

It is also observed from table 6.24 that the obtained F ratio of the interaction is 4.61 which exceeds the table value of F at 0.05 level. Hence it is significant at 0.05 level. Therefore it is inferred that there is an interaction effect of these two variables.

7.3.7 **Attitudes of Student-teachers coming from big family and small family**

The study of table 6.26 reveals that the first main effect of the treatment given to the group is highly significant. Hence the difference between the mean is
significant. The mean difference is in favour of the experimental group. It could therefore be said that the treatment given to the experimental group is significantly superior to the treatment given to the control group.

It is also observed from table 6.26 that F ratio of the second main effect of size of family is 0.0178, which does not reach the table value of F at 0.01 level of significance. Hence the mean difference between the mean scores on attitudes of two levels of size of family is not significant. Therefore it is concluded that the size of family is not a variable which have effect on the improvement of developing attitude towards population education. There is no interactive effect and therefore these two variables pull in opposite directions.

7.4 SUGGESTIONS

Research is hardly complete in itself. There is always scope for further studies on it. In the chapter of review of related literature, it has been mentioned that very few researches have been done in the area of population education in our country. Therefore there is enough scope for research in this area. Even looking to the importance of this basic problem there is an urgent need of exploring different aspects of population
education. A number of doubts and difficulties were faced by the investigator during the long process of the investigation, which have enabled the researcher to suggest a few problems for further researches in the area. In the wake of it a few problems are suggested hereunder:

1. The role of mass media in attitude development towards population education.
2. The impact of the instructional materials on attitude development towards population education of secondary school teachers.
3. A study of the knowledge and awareness of secondary school teachers towards population education.
4. A study of the opinion of the students of higher secondary schools of Gujarat state towards introduction of population education at the higher secondary level.
5. A study of the knowledge and awareness of parents of out of school youths towards population education.
7. A study of the awareness of teachers of different categories towards population education in relation to certain variables.
8. Impact of the instructional material on population education on the development of attitude of Adult Learners.

The list is indicative and not final.