Chapter – 2

STUDIES RELATED TO POPULATION EDUCATION AND HYPOTHESIS
India has a long history of Non-Formal education. It existed in one form or other even in the ancient times. No efforts was, however, done till recent past to either take stock of all that was happening in this vital area of social significance, or it evaluate any of this aspects. Even in recent years, very few studies have been undertaken in this field. Even today this situation has not improved very much. The review is based on only doctoral research and project research in this area of Non-formal education in universities and specialized institutions. In our country, systematic research in this field first started when Gadgil (1945) worked on the problems of lapse into illiteracy. This pioneering work was followed by other research projects after a lapse of more than a decade, by Singh (1957) and Khan (1958) who undertook research projects after a lapse of more than a decade, by Singh (1957) and Khan (1958) who undertook research on communication of ideas through Singh & Prasad (1967) and Dharam Vir (1968) undertook studies on youth activities, literacy development and adults interest. By (1969) research in this field attracted attention of researchers and also gained

This area was titled as social and Adult Education in “A survey of research in education”. Buch (1974) The title was chanced to “Non-formal Education in Second Survey of Research in Education”. Buch (1979).

Bhingarkar (1981) tried out to study the implications of concept of life-long education for social education. Most of research studies assessing the situation especially with reference to the programme of non-formal education.

The Population Education is a new area of studies under Non-formal education and so there is not much research to its
credit. During past decade and half the subject has attracted a lot of attention and some work has been done under the family planning association of India, NCERT and some of the universities in the country. Here the studies on knowledge attitudes, and practices towards population education are being reviewed because this research work is primarily concerned with the knowledge, attitudes and practices of the people.

“Population studies is concerned, on one hand with the qualitative study of the size, structure, characteristics and territorial distribution of human population and the changes occurring in them, and on the other hand with the study of the different courses of population phenomena. Its scope is quite wide. It is multi-disciplinary in nature drawing subject matter from several disciplines such as Psychology, Sociology, Economics, Cultural Anthropology, Statistics, Mathematics, Geography, Politics, Biology, Genetics, Medicine, Public Health, Ecology, etc. Sometimes demography and population studies are used interchangeable”. Reddy (1984)

Population studies is very comprehensive and it includes demography/population dynamics and analytical studies of population dynamics and analytical studies of population situation, its trends, courses, determinants consequences etc. and also the interrelationship among them.

Population studies are research oriented. It covers the body of knowledge, concepts and theories which describes or attempt to explain the dynamics of human population and their relationship with the social, cultural, economic, political and biological environment.
Population Education takes the content of demography, population dynamics, as a whole into it. Population studies is more a process of studying the population characteristics or of establishing the relationship between the population situation and its determinants or among the various dependent and in depended population characteristics and or consequences. Population studies, thus, is a process of conductive research into population matters while Population Education is a programme intended to impart education on population matters, issues, problems, etc. population studies help even to revise the population policy and programmes of population education. It can even help to bring in revamping changes in educational planning itself.

The aim of the present research work was ‘to study of the population awareness among people of Varanasi and the impact of educational interventions’. The survey reveals that population research is still in infancy. Though there are a number of studies related to Family Planning and demographic aspects of population, there are only few studies directly related to Population Education. Very little research is available which has direct implications for developing curriculum, improving teaching methodology or for effective implementation and evaluation of the programme.
Majority of studies are exploratory in nature. Trying to find out the awareness of teachers, students and parents regarding population problem and their opinion regarding the introduction of population education in schools. Research on population education started in our country in 1970 Saini (1988). A major trend observed in the researches is a heavy concentration of exploratory studies involving knowledge, attitude and perception of students, parents and teachers.

According NCERT (1981) further research in population education must try to concentrate more on the significant areas rising sophisticated research approaches, while exploratory studies continue to be important because of the vastness of the problem. There is a great need to use action research implementing population education evaluating it and getting feedback of the evaluation for further improvement of the programme. Intensive research is also needed to ensure effective teaching methodologies. Action research studies need to be undertaken to find out the difficulties involves in the integrated approach to the teaching of population education.

Bhatia (1991) suggested that population education efforts in the various sub-systems of education are further supplemented by liberal use of media (print and audio-visual) to create awareness concerning issues relating to population, size, right to health and right to survive with dignity.
According to UNESCO Regional office Bangkok (1970) the need for introducing Population Education at the University level has been actively felt in recent years because of the establishment of Population Education programme in many countries in Asia at the school level as well as in adult education and family education organized by UNESCO regional office in Bangkok in 1970. Twenty three countries in Asia and the Pacific have launched national programmes in population education, covering both formal and informal education. Some more countries are in the process of launching Population Education programmes. All these programmes are financially supported by UNFPA and technically backstopped by UNESCO.

Parikh (1986) expressed his views in his paper “Population Education and Extension” that there is an urgent need for research in communicational avenues so that mass of people understand what educated professional say. This needs a new social pedagogy, use of folk media like puppetry, effective use of local languages linking T.V. and Radio where over feasible and more importantly extensive use of communicating with mass of rural poor is an important as biomedical research. This is not a problem of more spread of information lust of creating understanding communicational channels that work from both ends of people as well as population educators.
According to Dubbey and Bardban (1982), in India the problem of family size has not been studies extensively and in-depth. Garden and Wyon made study in Punjab villages (1962) and University of Kerala carried out a detailed study on family growth in Kerala (1968). There is a definite need to undertake more such in-depth studies most of knowledge in this area came from several K.A.P. studies carried out in the country.

The population Education resources centre at the University of Madras has produced a position paper on a diagnostic study of population growth, family planning and development (1971-81). Prof. R. Jayagopal, the author of the paper suggests that the demographic status of the city of Madras called for need of policy interventions aimed at containing the rural, urban migration, linkages between various cities for reducing the growth and for influencing eligible couples in rural and urban areas to accept method of family planning. He has stressed the need to identity communication, strategies for promoting spacing methods.

The Population Education resource centre at the Ghandhigram Rural Institute (1988) has undertaken a study on demographic profile of Nildkottai and Batlacundu Blocks in Anna districts. Smt. Pandey and Smt. Karekal (187) undertook a study to assess the awareness of Population Education issues and family welfare programme among college girls in Mumbai. The university of Bardwan (1987) has
Undertaken a research study on child mortality in a slum in Burdwan, a town. The study aims to assess the incidence of child mortality in the perspective of growing population within the community. Bhatia (1987) suggested that some research efforts should be held in the area of University/College roles in influencing the community attitudes towards the small family norm. Should these be through widening access to information or should these be through concretizing access to be health care and other development resources. In the first case, the institutions would create awareness which would need to be backed up by follow up action in specific areas. In the second case institutional resources which would mediate with a view to bringing together people and development resources facilitating in turn the assimilation of organization behavior among the people.

The review covers studies that aims at finding out the attitude and opinion of parents, teachers and students to the introduction of Population Education in schools and college studies aimed at developing curriculum and teaching methodology for various groups and innovative experiments undertaken to develop and implement the programme. These studies have been broadly classified into the following categories Rao (1980):

1. K.A.P. (Knowledge, Attitudes and Practice) studies.
2. Curriculum development.
3. Awareness.
4. Sex Education.
5. Teaching methodology.
6. Innovation and Experimentation.

K. A. P. Studies

A successful programme of Population Education depends to a great extent upon the knowledge and attitude towards population problem of the primarily concerned groups such as teachers, pupils, parents and decision makers at different levels of school administration. Such studies aimed at answering questions such as what is the present status of knowledge of students and teachers on population problems. How do parents and teachers perceive Population Education? What is their reaction to the introduction of Population Education in Schools?

Out of different types of studies conducted during 1970-1979, a maximum number of studies are exploratory studies. There are three studies aimed at finding out the attitudes towards Population Education. There are two studies conducted at on large sample using survey methodology, one of the early pioneering survey in this field was conducted by Pohlmn and Rao (1970), involving a sample of 1000 children, 800 teachers and 400 parents. The other survey covering a sample of 2,039 students, 400 teachers and 200 parents was conducted by Salkar (1974).

In the case of basic research, K.A.P. studies have also been conducted in large numbers throughout the period. Generally
studies have been in this area of attitudes of different groups towards age at marriage, family size, and family planning, sex education and population. In one comparative study of attitudes of primary and secondary school teachers towards marriage and family size (1983), 45 percent of primary school teachers and 31 percent of secondary school teachers out of a total sample of 300 teachers showed a favourable attitudes towards delayed marriage, female teachers being slightly larger in number. Similarly, in case of favourable attitude towards small family size also statistical difference was observed in the attitudes of male and female teachers. In another study of socio-economic determinants of ideal age at marriage (1985), one study was undertaken on youth population and family building, empirical lessons for population Education (1985), A sample of 750 students from six selected universities to find out their attitudes towards family size. A majority of students were in favour of small family. Those who favoured a large family, also has strong preference for male child.

A comparative study of attitudes towards population awareness of professional and non-professional students was undertaken (1987). A comparative picture on the attitude of professional and non-professional students towards population related issues ices drawn. In one study conducted in the city of Rohtak in Haryana state (1987).

Non-Professional students were found to have better attitudes than their counterparts in the professional institutions. A study of attitudes of boys and girls studying in professional and non-
professional college towards marriage and family size was undertaken Punjab M.Phil. (1984). A significant difference in attitudes towards delayed age at marriage was observed among professional and non-professional students in the study conducted in Punjab on 300 students of size different colleges of Patiyala city (1984). In this study the professional students were found to be comparatively more in favour of delayed marriage.

In one study of teachers and educational administrations towards the introduction of Population Education in schools of Punjab M.Phil. (1984). 92 percent of teachers and 97 percent of educational administrators out of a total sample of 200 showed a favourable attitude. No significant difference in attitude was observed between the primary and secondary teachers and between the rural and urban teachers. In another study conducted in Bhilwara district (1989) of Rajasthan state. In this study the female teachers of rural areas were found to have more positive attitude towards population education than their urban counterparts. A study conducted (1988) in Ph.D. level of the knowledge and attitudes of secondary school teachers in Karnataka in respect of Population Education, One interesting finding of this study was that teachers working in private schools showed a better understanding of the concept and content of Population Education.
In (1970), under the Michigan population project at M.S. University of Baroda, Mr. T. Poffenberger made a study of the knowledge and the attitudes of Indian college students towards population related problems. The findings of the study were:

1. Ninety percent of boys and 100 percent of girls agreed with the statement that the population of India was growing too rapidly.

2. Eighty-three percent of boys and 92 percent of girls agreed that the population problem was serious. The average number of children desired by the boys was 2.6 while the average number desired by the girls was 2.2

Nagda (1975) and his group from the population study centre of Sri Venkatesware University Tirupati made a survey of the perspective of the students of women college towards the population education. Two hundred girls students of women college Nellore in Andhra Pradesh were involved in this study, out of which 80 percent were urban and 20 percent from rural areas. The technique adopted was a questionnaire. The findings were:

1. Seventy-five percent of the girls knew the meaning of population explosion.

2. Most of the students agreed that the size of family can be planned by a human being.

3. Most of the girls opined that the significant gap between two successive children is necessary for the health of the mother and the children.
4. Fifty percent of them considered late marriage as one of the methods of controlling the size of the family.
5. Eighty percent of them thought that over population lead to socio-economic instability in the country.

**Curriculum Development**

Curriculum Development is central to any teaching learning process it offers an educational view of the learners. It also reflects other aspect of the teaching learning process: learning material development, training of personal delivery system, monitoring and evaluation.

Leuis and Miel (1972) defined curriculum as a set of intentions about opportunities of engagement of persons to be educated with other persons and thing (all bears of information, processes, techniques and values) in certain arrangements of time and space.

Saylor (1981) gave some meaningful advice for the curriculum planners “No one curriculum design can be adequate for the total curriculum plan of an educational institution serving a varied population with multiple goal. Instead, we see the curriculum we see the curriculum planners as properly selecting appropriate designs for particular curriculum goals, domains, and objective. Inevitably,

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designing is an area of decision- making to be shared by those immediately responsible for the curriculum plan of a particular educational setting”

Studies leading to the development of suitable curriculum in population is an important area of research. The sensitive socio-cultural
values involved in introducing Population Education must be investigated and integrated into the curriculum on population. Research in this area will answer the question. Most of the studies reviewed here have been aimed at developing curriculum for schools and Training colleges. One of the earliest studies undertaken by the NCERT, was the analysis of the syllabi of various subjects to find out the existing population contents in different school subject. Based on this analysis a draft syllabus in Population Education was developed for the 11 years school stage. The syllabus was developed and five major areas:

1. Population dynamics

This syllabus has been vastly used in different parts of the country and has been well accepted.

Faneuff (1977) developed a curriculum including the basis demographic concepts and the impact of population, growth on health, food and standard of living. There are two concept based curriculum for use in school, one developed by Manjul (1970) and the other by Rao (1974). There are two studies aimed at developing curriculum for the secondary teacher training colleges. One was developed by Mehta (1971) and others in a workshop of teachers educators, and the other a part of Ph.D. thesis by Thakore (1979) using sophisticated methodology of diagnosis, selection of objectives,
selection of contents, selection of learning experiences, organization of contents and learning experience and evaluation.

One efforts was made by Rehman (1979) who developed curriculum for out of school youths. Gangrode (1975) used an action-cum-research methodology in developing a curriculum model in Population Education for University students. Rahman (1978) also studied on the development of Population Education curriculum in a system of non-formal education for out of school Youth. The objectives of the study were:

i. Development of population education curriculum,
ii. Implementation of the curriculum materials in the actual situation, and
iii. Evaluation of curriculum materials.

The main hypothesis framed were:

1. The identified general objectives and specific objectives would be acceptable to the curriculum specialists population education experts, non-formal education experts teacher education and teachers.
2. They would consider the selected concepts and content areas.
3. The curriculum materials (consisting of instructional materials, teaching aids) would bring out among the learners, improvement in the knowledge base of attitudes towards matters pertaining to population.

The sample drawn for implementation and evaluation of the curriculum was confined to two selected villages in Bangladesh. Fifty seven youths were selected from both the villages. Data were collected with the help of self-made opinionaires, an attitude test and an achievement test. The major findings of the study were:

i. There was no contradiction or inconsistency between the central objectives and the specific objectives.
ii. The selected concepts and content areas were suitable for the fulfilment of the objectives.
iii. The curriculum materials (consisting of instructional materials, Teaching aids, instruction notes) helped in bringing out change of attitude among the learners towards matters pertaining to population.

Sunder Raj (1978) developed a curriculum on Population education for college students. The major objectives of the study were:

i. To prepare a curriculum on population education for collecting students.
ii. To examine its efficacy in terms of pupils knowledge understanding, awareness, opinion and attitude, and
iii. To make suggestions and recommendations for effective use of population education curriculum at the college level.

Considering the impact or consequences of population growth phenomena in selected aspects of social and natural environment, the course content was prepared. This was modified after tryout on teacher trainees. The improved syllabus was tried put in eight Arts Colleges both men’s and women’s in the Rural and Urban areas. For studying the efficacy of curriculum protested post test control group design was adopted. Data were collected using questionnaire for college student’s reactions to population education and a set of unit tests. The data were analysed using t- test. The findings of the study were:

(i) Improvement in overall performance through instruction was shown by the significant difference in the mean scores

Of the experimental group in the post-test as compared to those in the pre-test.

(ii) Performance of the experimental group in the post-test was significantly higher than that of the control group on conditioning scores.

(iii) Performance of the experimental group on the awareness scores in the post-test was significantly higher than that of the control group.

(iv) Performance of the experimental group on the opinion scores in the post-test was significantly higher than that of the control group.
(v) The adjusted post-test mean attitude score of the experimental group was significantly higher than the adjusted post-test mean score of the control group.

Thakore (1979) developed a curriculum in population education for secondary teachers under training. The investigator made an elaborate study of all the relevant literature available both in the area of the theory and that of population education. In the investigation the theory of curriculum has been applied for developing a curriculum in population education for secondary teachers under training for whom there was no precedent of parallel. The model for the process of curriculum development was innovated and its six phases were gone through. The curriculum thus developed was actually tried out for the whole academic year in the normal working conditions. For pre-test and post-test measurement, the investigators constructed tools such as an attitude scale and an achievement test in population education. The measurement aspect of evaluation was complemented by the assessment aspect. Finally, the curriculum package was developed for the teacher trainees.

Srivastava (1982) studied attitude of secondary school teachers towards the teaching of population education in schools. The study aimed at finding out the attitude of secondary school teacher in Lucknow district towards the teaching of population education. The sample
consisted of six hundred secondary school teachers randomly selected from the secondary schools of Lucknow district. A Likert type attitude scale was used to measure the attitude of teachers towards population education. The main findings of the study were:

i. In general the attitude of the secondary school teachers towards the teaching of population education was favourable.

ii. The rural teachers had more favourable attitude towards teaching population education than the urban teachers.

iii. The teachers with the longer teaching experience were less aware of the need for teaching population education.

iv. There was no marked difference in the attitude of the male and female teachers towards teaching population education.

v. There was no marked difference in the attitude of the married and unmarried teachers towards teaching population education.

vi. There was no marked difference in the attitude of the science and Arts teachers towards teaching population education.

vii. The Hindu teachers had more favourable attitude towards teaching Population education.

viii. The teachers were classified into three categories as regards their academic qualifications. It was observed that the
teachers falling in the middle category had more favourable attitude towards teaching population education than those in the other categories.

Sharma (1983) tried to study of the relationship between educational level. Social status, attitudes and family size of middle aged parents. The objectives of the study were:

1. To investigate the relationship between the educational level of the husband and his family size.

2. To find out the relationship between the social status and the family size.

3. To analyze the attitudes of parents with different educational status towards the family size norm and population education.

4. To suggest some ways and means to check the magnitude of the population problem on the basis of the study.

A specially prepared questionnaire and two attitudes scale attitudes towards population education were administered on 111 primary, 108 middle, 166 Metric, 112 Graduates and 96 Highly qualified persons selected at random from Hamirpur district of Himachal Pradesh. The findings were:

i. The educational level of husbands was found to be negatively correlated with family size.

ii. Husbands belonging to the higher socio-economic status were found having’ families of smaller size than those of the husbands belonging to the lower socio-economic status.
iii. The attitudes of the matriculates, graduates, and highly qualified persons as compared to that of middle-pass individuals separately and the attitudes of graduates and highly qualified individuals in separate group was found to be more favourable for the introduction of population education in the curriculum.

iv. Education acted as a contraceptive by itself and all-round efforts should be made for expansion and the contents of population education should be included in the school curriculum.

Bhandarkar (1983) has undertaken a study of population education knowledge and attitudes of secondary school students and teachers. The research aimed at:

i. Studying population education including the knowledge about population education.

ii. Studying their relationship with other useful components of population education.

The sample comprised 142 teachers and 1,500 of 22 urban and rural schools. A population education knowledge test and an attitude
scale were specially constructed for the study. The major conclusion drawn from the study were:

i. Secondary school students in general possessed a poor knowledge of population education but they had a moderately favourable attitude towards it.

ii. Secondary school teachers had moderate knowledge and a favourable attitude.

iii. Male and female students different significantly in their knowledge base and attitudes towards population education. Female students scored higher on both knowledge and attitudes tests than Male students.

iv. Students of arts had better knowledge than student of biology and arts students had a more favourable attitude than students of commerce and mathematics.

v. The groups categorized on the basis of parental educational level differed significantly in their knowledge and attitudes.

vi. Population education knowledge and attitude were positively related with their family income.
vii. The students of nuclear families possessed better knowledge and had more positive attitude than those of joint families.

viii. On the dimension of religion it was found that Muslim and Sikhs students had a comparatively higher knowledge base than Hindus and Christians students. Religion, however did not have any significant impact on their attitudes.

ix. Scheduled caste students displayed a better knowledge base than students of schedule tribes bad general categories. Scheduled tribe students had poor knowledge and the least favorable attitude towards population education.

Sattarshakwala (1981) tried out a strategy of bringing about attitudinal changes in the context of Population Education.

The major objectives were:

1. To prepare and try out an attitude scale to know the attitude of the students of class IX people in general and field workers in the family planning programme towards Population Education.
2. To study the effect of a multimedia learning package of their attitude towards Population Education. In all 1,000 students of class IX, 300 people in General end 100 field workers in the family manning programme were selected from urban as well as rural areas of Surat district.
The investigator prepared an attitude scale on Population Education for data collection.

The major findings were:

i. The whole group that was exposed to the treatment of the learning package showed significant positive improvement level in their attitude towards Population Education.

ii. The field workers in the family planning programme did not show any significant improvement in their attitudes towards Population Education after the use of the learning package.

iii. The male and female students who were exposed to the treatment of the learning package showed significant positive improvement (0.01 level and at 0.05 level) respectively in their attitude towards Population Education.

iv. The male and females of the general population after the use of the learning package showed significant positive improvement at (0.05 level) in their attitude towards Population Education.

v. There was no significant difference between the rural and urban sample of attitude towards Population Education.

SCERT, Bihar (1986) studied an achievement of secondary level students in Population Education. The main objective of the study was to evaluate the effectiveness of the efforts made so far towards imparting population education. The specific objectives were:
i. To assess the level of gain in knowledge regarding Population Education ideas and contents.

ii. To assess the level of understanding of issues related of Population Education.

iii. To assess the degree of enhancement made in such knowledge and understanding through sources other than classroom instruction.

iv. To assess the node of application of such knowledge by an individual in solving problems.

Purnea, Gumla, Deoghar, Gopalganj, and West Champaran districts were selected for the present study. A representative sample of 1,000 students of class X drawn from 20 boys and girls schools of urban and rural areas were selected from these five districts. Achievement tests were developed and administered. The test items were based mostly on knowledge, understanding and application. The target group constituted those students who were taught lessons on Population Education.

The major conclusions were:

i. In respect of knowledge urban boys were the most knowledge followed by urban girls, rural boys and rural girls.

ii. In respect of understanding urban boys were at the top followed by urban girls, rural boys and rural girls.
iii. In respect of application the urban boys were most aware followed by urban girls, rural boys and rural girls.

iv. Urban boys and girls were more knowledge than rural boys and girls but in the field of understanding and application of Population Education. The girls of both urban and rural areas lagged behind the boys significantly.

v. There was maximum variation in the knowledge of the students but the same went on diminishing in understanding and application.

vi. There was a considerable level of difference in the awareness of the population problem (knowledge), it understanding and application.

vii. As regards the level of overall achievements among the secondary students of Bihar, The awareness or knowledge of population problems was found out of 69 percent and the understanding and application of the knowledge gained had been evaluated to extent of 64 percent in each case.

SCERT, Maharashtra (1986) studied an evaluation of the teaching-learning of Population Education
i. The study was conducted to assess broadly the measure of institutional support that had become available for the programme.

ii. To assess the measure of attitudinal change that could be brought about among the secondary teachers who were trained in the concept and methodology of Population Education.

iii. To extend suggestions for the improvement of the administration of the project.

The tools used for the study were opinionnaires for principals of colleges of education and principals of Junior colleges of education, questionnaires for the headmasters of secondary schools the teachers of Junior colleges, information schedules, observation schedules and schedules for noting attitudinal change in teacher educators.

The major findings of the study were:

i. Five out of seven non-agricultural universities had Population Education of a subject included in the syllabi at B.Ed. level.

ii. With the exception of one University all the remaining general universities in the State had more than 50 percent of their staff oriented to the concept and methodology of Population Education.

iii. Seventy five percent of the Junior Colleges of education had oriented their staff to the concept and methodology of Population Education.
iv. All the pupil teachers in the Junior Colleges of education had oriented their staff to the concept and methodology of Population Education.

v. The quality of lessons on Population Education where fairly satisfactory at nine centres out of 15.

vi. Around 67 percent of college teachers had the desired attitudinal change.

vii. More than 50 percent of Junior College teachers and the desired attitudinal change.

viii. Around 78 percent of colleges of education came under grades A and B, 72 percent of the Junior Colleges of education fell under grades A and B.

ix. Only 22 percent of the high schools came under grades A and B, 65 percent under grade C and 12 percent under grades D and E.

x. It was suggested that training programmes must be organized for the left over teachers at all levels including the 10+2 stage teachers.

Awareness

A few studies on population awareness among different groups have been conducted. One small study conducted on the nest-graduate students of Punjab University (1985) revealed a significant lack of awareness among the majority of arts and science students. It was found
that students belonging to the families of 4 to 8 members were more aware of the population problem than the students belonging to the families of either less that 4 members or more & members. Another study conducted on population awareness among postgraduate students in relation to the member of sibling and their ordinal position (1985). This study conducted in 1702 post graduate students of art of science faculties of the Punjab University found a significant difference in the awareness of boys and girls. Boys were found to be more aware than the girls. More importantly it was found that science students were more aware than arts students.

A study of awareness of under-graduate youths of the problems of the population explosion (1998) College G.M. College, Sambalpur, Orissa, revealed that the scores of science students were higher than their counterparts in Arts and Commerce. In another study conducted in Bhubneshwar (1988) Orissa on awareness of secondary school teachers towards population education. It was found that there was no significant difference between male and female teachers. In respect of their reaction to the introduction of Population Education. A study conducted Ph.D. (1989) of population awareness and attitudes toward Population Education and control among adults education functionaries was inadequate, their attitude towards Population Education and population control was comparatively more positive.
Salkar (1974) of teachers college, Goa studied Population Awareness among the school students of standard VII to XI in Goa. He also along with the study made a study of the reactions of parents and teachers towards introduction of Population Education in school curricula. His study sample consisted of 2,039 students of standard VII to XI studying in Goa district. His findings were:

i. Majority of Goan students were aware of the population problem in the country.

ii. They were willing to learn about population.

iii. Nearly 50 percent of them desired to learn it as a subject included in the school curricula.

Patel (1974) of Gujarat University made a study of Population Awareness of pupils of standard at Varman High School in Gujarat. The objective of the study was to assess the awareness of the students about population problems and to find out their lives aspirations. His findings were:

i. Students in general were aware of the population problems faced by the country.

ii. Most of the students were not aware of the important of the family planning programme.
iii. Whereas most of the girls wished to live and serve in the city, nearly half of the numbers of boys were willing to live in village, but serve in the city.

iv. A good number of students considered late marriage as an advantage.

v. The students did not have independent decision regarding the age at marriage and selection of mate.

vi. The students had favourable attitude towards education in general.

vii. Most of the boys did not favour higher education for the daughter whereas the girls wanted to have higher education.

viii. Most of the students believed in the traditional value of having more.

ix. In most cases students did not discuss the family problems with parents.

x. Girl students were more knowledgeable about family planning than boys.

Ammal (1976) of Lineam Home Science for Women, Coimbatore studied the adolescent awareness of population crises and their opinion
towards introducing Population Education in Schools. His findings were:

i. The urban adolescents from the middle income group were more aware of the population crises prevailing in our country than the rural sample of middle income group. The rural sample of the low income group was least aware of population crises.

ii. The most frequently mentioned courses of population crises were customs and tradition, early marriages, failure of family planning programmes and religion.

iii. Majority of adolescents from middle income groups and boys from large families mentioned unemployment, poverty, poor-housing conditions and food shortage to be very serious hazards of over population.

iv. The adolescents had very poor awareness of the measures taken by national and international agencies to combat population crises.

v. Most of the adolescents viewed the term “Population Education as education to control population explosion”. Majority of them preferred Population Education in schools and they felt that the courses and efforts of population crises.
vi. Majority of the adolescents felt that both the boys and girls should receive Population Education in schools and it should be taught as part of a subject preferably along with science subject.

Deshmukh (1976) of teacher’s training college Bangalore studies population problem awareness among the pre-university students of selected colleges of Bangalore. The main objectives was to study the

Population awareness among the second year pre-university course students specially socio-economic conditions and problems related to food, health, housing, education and development. One hundred sixty students from 6 different colleges were involved in this study out of which 56 percent were boys and 44 percent were girls. The finding are:

i. The general awareness of students towards population problem was found to be moderate, i.e. 55 percent were aware of population problem.

ii. Boys were found to be much more aware of population problem than girls.

iii. Family background and religion were not related to students, awareness of population problem.

iv. The students involvement in the social service activities in the reading of newspaper or going to movies had no effect on their population awareness. On the other hand reading general books and
listening to radio talks had significant bearing on the level of population awareness.

Khare (1981) of the regional College of Education Bhopal made a study of the population awareness among the 250 students of class VIII studying in schools of Bhopal city. He used a questionnaire having questions on population and environment, economic development, health and nutrition and social relationship. His findings were:

i. Students awareness of population problems was moderate.

ii. Sixty percent of the students were all aware of the relationship between population and environment, population and economic development. Population and health and nutrition and population and social problems.

Robinson (1975) of M.S. University of Baroda conducted a study of the effect of teaching Population Education awareness of students of standard VII of Central School Baroda. A purposive sample of 27 students was taught 5 lessons in 5 selected areas of Population Education through teacher led approach with the use of teaching aids. The main finding of the study:

i. There was significant difference between the achievement of the students as tested by the pre-test and post-test for the first low areas. Thus the teaching of Population Education did increase the total
awareness of the students regarding population problems in these areas.

ii. The achievement was not significant for the other areas.

iii. Whereas 81.4 percent of the students were found interested in learning about population problem, 66 percent of the students did not want to learn about sex and family planning.

iv. The sex, family size and parental education did not have any effect on the students achievement in Population Education.


A questionnaire consisting of both open-end and closed type questions was constructed by the investigator. The sample was drawn from Coimbatore city and from Perianaickenpoyam and Karamadi panchayat union. The number of schools in this universe was listed and stratified as primary, middle and high school and fourteen urban and eleven rural schools were chosen at random. The questionnaire was administered to 1,200 pupils, 400 pupils from each stratum. The specially developed course on Population Education was tested by administering the same questionnaire. Some of the findings of the study were:
i. Rural pupils, boys in general showed greater population awareness than urban pupils and girls.

ii. The high school pupils showed significantly more awareness than the primary and the middle school pupils while no significant difference was found between the primary and the middle school pupils.

iii. Willingness to learn, Population Education was expressed by a majority of the pupils.

iv. The school course imparted to the pupils had significantly improved their population awareness.

**Sex Education**

As one of the aims of Population Education is population limitation, people in general associate Population Education with family planning and sex education. In the national seminar on Population Education held in (1969), NCERT the opinion was divided as to whether or not sex education should be taught as a component of Population Education.

Some people felt that the inclusion of sex education may come in the way of introducing Population Education in schools. Some studies on the attitudes of students and teachers towards the introduction of sex education in school have been conducted in the past in 1970. This
category includes KAP studies on sex education, curriculum of sex education etc. Some of these studies were:


ii. A study of the knowledge and attitudes of teachers towards the introduction of sex education in school curricula. Guptey (1974)


iv. A study on the opinions of the school teachers of universities of Hyderabad and Secunderabad regarding introduction of sex education in secondary school M.Ed. Hyderabad (1985). This study has been conducted on a sample of 94 teachers from 15 High schools belonging to a particular religion made a significant difference. Teachers belonging to Hindu and Christian religions were found to be more favourable to the introduction of sex education in secondary schools than those belonging to Islam. As far as the comparison between science and arts teachers was concerned, it was found that science and arts teachers was
concerned, it was found that science teachers were more favourable. However, as high as 84 percent teachers expressed the view that boys alone needed lessons in sex education. Majority of teachers also opinioned that the awareness of sex related issue would certainly lead to the adoption of small family norm among students.


**Teaching Methodology**

While teachers and educators are well aware of the different methods of teachings, it is necessary to find out which of the methods are specifically effective in conveying the message of Population Education. The studies reviewed here aimed at answering questions such as which method of teaching is more effective.

Following studies reviewed here are related to the effectiveness of the approaches, one study on holistic and integrated approach, the second study on formal and non-formal approaches and the other on the curricular approaches to the teaching of Population Education. IN these studies, the pre and post-tests have been conducted to find out the effectiveness. Gangrade (1975) undertook an action research to find out the effectiveness of a package of programmes at the university level. Parameshwararappu (1975) found that the integrated method is superior to the holistic method of teaching Population Education. Faneuff (1971) found that both the formal and informal approaches of teaching were
equally effective. In the study conducted by Gangrade, a package programme involving lectures, debates film show and exhibition related to population problem was found effective at the university Stage. Thakore (1979) developed a curriculum for secondary teacher trainees and evaluated its effectiveness by implementing the programme in a training college for area academic session.

Sivapalan (1991) inquired into the workers education programme in Kerala with view to suggesting improvements. He found that trade unionism was closely linked to the workers education programme and influenced the scheme very much facilities for the unit level classes in industries were not sufficient and modern methods techniques were not also used in the programme. Upasani (1988) studied Rural environment education project teetering development of alternating models and strategies for self learning for the Rural Youths on topics relevant to their life. He found that all the students who were involved in book binding and making exercise books on their own all of them (who were from classes VII, VIII and IX) should significant spelling. He also developed a model from self study for rural youths based on the experience of the study, which was found successful.

**Innovation and Experimentation**

Population Education is a new innovation in the field of education and there is no experience or precedence to develop an action programme.
Some attempts have been made to develop a methodology and strategy implementing Population Education programme. Six such studies have been reviewed here.

One such study was taken by Chawla (1978) to find out the education and population policies. Lulla (1972) has developed a theoretical model suggesting the goals, contents, methodology and methodology and material needed for implementing the programme at different levels primary, secondary, collegiate and also for out of school youths. Profenberger (1971) developed an experimental Population Education programme for Rural India. He called this approach “Life Planning” and has defined it as planning in terms of personal significance for the individual and his family. He suggested six areas of action programme involving the community, a secondary school an out of school centre and centres for material development, teacher training and research and evaluation, for developing and implementing the Population Education project in Rural India. Parekh (1977) and associates developed a work book on Population Education for class VIII. The material was prepared in eight centre in different parts of the country and was tried out an about 80-100 students from each centre. The students were asked to go through the work book. It was found that the students were able to imbibe the knowledge content in the work book without any external guidance. Desai (1979) and associated conducted on action programme to develop curriculum in Population Education to the basis of the factors influencing everyday life in the family and a package programme containing 12 experiments were tried out. The effectiveness of the programme was found by different methods. Parekh and Rao (1975)
Have suggested modular framework for developing a Population Education programme. They have conceptualized four modules which contribute to the development of Population Education programme: three modules viz. curriculum building, system building and diffusion planning, when well developed lead to the conceptualization of the innovation, viz., Population Education Parakh (1979) and associated have conducted a national base line survey on Population Education. This is the first comprehensive survey conducted on all India basis.

**Conclusion**

The basis goal of Population Education is to bring out an improvement in the quality of life at family and community level. Research is a goal directed activity like Population Education should eventually fulfil its technological function. It should lead to the improvement of the different population education processes which turn result in the achievement of its goal. These goal have been accepted as development of knowledge and understanding of the population phenomena, especially its relationship with different aspects of development, development of positive attitude, values and abilities to take responsible decisions concerning family size and quality of life both at the micro and macro levels. Accordingly research activity in this field is to be
judged in terms of how effectively it has contributed to the realization of the final goals.

Populations Education research should be judged in terms of the extent to which it helps the user groups in understanding the interrelations between the different variables effecting knowledge, attitudes and behaviour towards population phenomena and the relative effectiveness of different interventions strategies in achieving the objectives of population education. Keeping in view the above factors the research efforts in this area must be reviewed.

The ultimate aim researches in the field of Population Education may be assessed the level of awareness regarding knowledge, attitude and practices of the people. Researches related KAP studies have a great academic utility. Hence knowledge, attitude and practices of the people related to different dimensions of Population Education may be developed through different educational interventions.

**The Hypothesis**

After a problem gas been identified certain answer of solutions in the form of hypothesis may be formulated. These hunches, educated guesses or speculation may be based upon past experiences, informal observation or information gained from others.

The following hypothesis were advised to test the required level of significance related to the problem:
i. There is no significant difference between the status of knowledge of Rural and Urban people of Varanasi about different aspects of Population Education.

ii. There is no significant difference between the status of knowledge of Male and Female of Varanasi about different aspects of Population Educations.

iii. There is no significant difference between the attitude of Rural and Urban people of Varanasi about different aspects of Population Education.

iv. There is no significant difference between the attitude of Male and Female of Varanasi about different aspects of Population Education.

v. There is no significant difference between the practices relating to Population Education of Rural and Urban people of Population Education Varanasi.

vi. There is a positive impact of Educational Interventions on the knowledge, attitude and practices domain relating to Population Education of the people of Population Education Varanasi.