Population education: a contemporary concern

International study of the conceptualization and methodology of population education (ISCOMPE)

UNESCO
The aim of the present work is to publicize the results of a study on the fundamental concepts and the methodology of population education which was undertaken by Unesco. This study, which soon became more familiarly known by its initials "ISCOMPE", (1) was a response to demands made on Unesco and on the United Nations Fund for Population Activities (UNFPA). Unesco's General Conference at its eighteenth and nineteenth sessions entrusted the Secretariat with the task of carrying out research in order to "improve knowledge of population problems and particularly of the causes and consequences of human behaviour in this respect", and to "extend educational activities conducive to a better understanding of the part played by population phenomena in the development of societies". This study also falls within the framework of Unesco's broad endeavour in terms of renovating education structures and contents to meet the needs of an ever-changing world.

Financing for this study - both for the preliminary research and the present publication - was provided by UNFPA, with the aim of shedding light on one of the most important fields covered by its mandate and thereby helping international activities in this domain to become more effective.

It is hoped that the present document - which is also being published in French and Spanish - will be of interest to those involved in the educational milieu, decision-makers, educators responsible for curriculum development, researchers and training institutes, and teachers themselves, as well as to a wider public, including those involved with the mass media and with policy-making in general.

This is a collective work. It is only legitimate to make special reference to the contribution of the consultants who played an essential role at the most important stages of the undertaking. In fact, this document has largely been the work of Anthony Johnston in the final phase of its preparation, of Stephen Viederman from its very origins, and of Sloan Wayland, Abigail Krystall and Donald Chauls at various moments. Our thanks go as well to those correspondents whose responses - numerous and sometimes enthusiastic - have helped over the last two years to give this study its true substance.

The opinions expressed are those of the participants in the study and do not necessarily reflect the views of Unesco. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Unesco Secretariat concerning the legal status of any country, territory, city or area or of its authorities or concerning the delimitation of its frontiers or boundaries.

(1) International Study of the Conceptualization and Methodology of Population Education.
CORRIGENDUM

p. 25 footnote (6) should read: (see p. 24 of this report)
p. 29 " " (3) " " (see p. 25 of this report)
p. 35 " " (1) Unesco, Bangkok - op. cit. should read: see present volume p. 25
p. 36 " " (1) Unesco Regional Office for Education in Asia, Bangkok, 1975. op. cit. should read: see this volume p. 29
p. 45 " " (1) should read: p. 10, Footnote (4)
p. 46 " " (1) should read: p. 29
p. 49 " " (2) should read: (see p. 25 of this report)
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p. 87 Second column, line 7 - delete "In this latter case
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Introduction

In the mid-seventies, it became obvious to Unesco and UNFPA, and to those people in Member States who were attempting to improve education in population matters, that a study of the state of the art in this field was needed. So much individual or isolated experience had been accumulated over the previous fifteen years that the expression "population education" was now being used to cover a whole range of activities, the diversified character of whose objectives was, to say the least, confusing. It seemed that their promoters, more often than not beset by the exacting constraints of the fight for development of which their activities were part, hardly had the leisure to confer in order to combine, at an international level, the results of their respective experiences.

The danger therefore existed that the rather disorderly profusion of initiatives and ideas would give the impression that this "population education" was accidental more than anything else and could not be construed as an organized body of concepts and methods. There was also a risk that serious theoretical misunderstandings would be perpetuated in action and that a form of population education would develop in a non-critical fashion without sufficient thought being given to its foundation. An orderly analysis of the fundamental ideas and the observable methodology of this new field of educational undertaking was therefore necessary.

In the minds of those responsible for the International Study of the Conceptualization and Methodology of Population Education (ISCOMPE), it was a question of achieving such an analysis while, at the same time, provoking critical reflection on the part of those undertaking activities related to population education. Furthermore, it was hoped - in particular through the publication of the results of the study - to interest a broader public, drawn from university and pedagogical circles as well as decision-makers in the educational world, in the potentialities of population education.

On the other hand, the aim of this study has never been to set norms, nor was its goal a universal consensus as to what population education should be, everywhere and at all times: to elucidate trends does not imply that one is seeking, in the face of common sense, to reduce them to one single tendency.

In the same way, this undertaking was not thought of as being an end in itself. The measure of its success should therefore be sought less in the number of "solutions" proposed in the present work as in the number and importance of the problems that ISCOMPE has brought to light and that it would have been unhealthy to evade. It will then be the task of the educators, organizers and programme administrators to discover for themselves the work formula best suited to their own socio-economic and cultural environments.

The present work should therefore be considered only as a landmark in the evolution of population education; it should not be considered as the crystallization, in the form of pseudo-conclusions, of the results of ISCOMPE, but simply as one step in what should become a continuous process of critical examination, analogous to that which takes place - or should take place - when dealing with any educational theories and practices. As regards the concepts, it was deemed necessary to introduce a number of repetitions to ensure that each concept was fully explained in context.

Those responsible for the study were obviously aware of the huge and sometimes violent controversy which surrounded population questions in general during the sixties and which continued until the Bucharest Conference in 1974. The intellectual divergences which came to light during the ISCOMPE study sometimes recalled some of the discussions at the Bucharest Conference. Like the Conference, the study was in fact conceived in order to solve misunderstandings which had been granted onto the population debate. The character of this debate is still of great interest and suffices in any case to justify the title of the present document.

In carrying out this study, the Secretariat had, in theory, the choice of several possible strategies, ranging from a simple comparative compilation of already-published literature, carried out in the
isolation of an office by one or two specialists, to
the setting up of a cumbersome international appa-
ratus involving the organization, over a number of
years, of a series of regional meetings, crowned
at the end by a world conference. But this choice
in fact existed only in theory: a simple study of the
texts would only have served to underline their con-
tradictions and to highlight the misunderstandings
it was intended to overcome; the more cumbersome
formula, on the other hand, would have had the dou-
ble inconvenience of calling for financial resources
which were not at our disposal and of taking so long
that the final product would not have been available
for a considerable time. It seemed preferable to
adopt a lighter and more flexible system, following
a working calendar which could be modified at each
stage according to the provisional conclusions which
had been reached. This formula included the consul-
tation, by correspondence, of several hundred spe-
cialists from all parts of the world, belonging to
different disciplines and specialities, primarily of
course to that of population education. Further-
more, the Secretariat called upon the knowledge
and experience of outside consultants, to help ana-
lyse the replies to the consultation and then to put
the results of the study into shape. Working meet-
ings were held at Unesco Headquarters, bringing
together, around the central team, some of the con-
sultants and, on occasions, the regional advisers on
population education who, in Asia, Africa, Latin
America and the Arab States, are at the service of
Member States in their respective regions.

It must be underlined that the active participa-
tion of these regional advisers, while not perhaps
cancelling out the fact that consultants were to be
found only in a given politico-cultural setting, none-
theless provided the study with a realistic estimate
of the preoccupations of other regions and with im-
portant information about the activities of a great
number of countries in population education, as
well as about the theoretical and practical obstacles
encountered.

Hence, after drafting two intermediary docu-
ments which were despatched to the four corners
of the world for criticism and comment, the pre-
sent work was put together.

Meanwhile, the study itself had, under its own
momentum - and well before the publication of its
results - given rise to an impulse towards reflec-
tion and an exchange of ideas which was in itself a
significant phenomenon. The problems and ideas
which it evoked have already been mentioned in
specialized articles and documents and have begun
to make their way into various courses and semi-
inars in Africa, Latin America, North America and
Asia.

It is to be hoped that this reflection will contin-
ue and that the present publication will stimulate it.
INTRODUCTION

The word "population" has at different times meant different things to different people. In the sixteenth century in England, it was used as a synonym for devastation, for laying waste. Today, most people associate the word population with growth though the depopulation of rural areas - both in industrialized and developing nations - is not an unusual phenomenon. Despite the popular association of population with fertility, it is also concerned with the movement of people within and between nations and with mortality.

This report, however, is not about population as such but about an educational process - population education - designed to help people understand the nature - and particularly the causes and consequences - of population events. It is directed at people - as individuals or as members of groups, as decision-makers or potential decision-makers within their families, as citizens within a community, as leaders within a society and as policy-makers within a nation. All people are population actors, making population-related decisions throughout their lives.

THE POPULATION SITUATION AND THE POPULATION DEBATE

The facts of the present world population situation are relatively simple and undisputed. It is the interpretation of these facts that gives rise to the population debate. First, some of the facts.

The population situation

The population of the world is about 4 billion and the growth rate is approximately 2 per cent. This means that between 75 and 80 million people are being added annually. The world population is expected to double in about thirty-five years or around the year 2010. The current population situation is unique in man's experience: the highest growth rate in human history from the highest base in absolute numbers.

For the first thousands of years of human history, population growth was negligible: annual growth rates of about 0.002 per cent meant that a given population would double in about 35,000 years. The last thousand years showed only very slight increases until the twentieth century, during which population growth has risen to unprecedented levels.

The rapid increase in the rate of population growth since mid-XXth century has been caused by

(2) Throughout this report, the terms population decisions and population decision-making are used to refer to decisions which are directly concerned with the processes of fertility, mortality or migration. The terms population-related decisions and population-related decision-making are used to refer to social, economic or political decisions which influence population processes or the available options for population decision-making.
not by increasing fertility but by drastic declines in mortality rates (particularly among infants and children) due to improved public health and advances in medical technology. In the industrialized world, birth and death rates both declined gradually over a period of centuries beginning about 1650. In the developing world, however, death rates have dropped rapidly only in the last few decades of this century, while birth rates have remained high.

However, to report an "average" world population growth rate at present of 2 per cent is misleading. Of the ten most populous nations in the world, none currently has a growth rate of 2 per cent: six have higher rates and four have lower rates. (1) Population is growing more quickly in developing nations: industrialized nations average annual growth rates of 1.0 per cent, which means that their populations will double in 70 years; developing nations average annual growth rates of 2.5 per cent, which means that their populations will double in 28 years. (2)

In considering the population situation of a particular country or area, we have to look beyond birth and death rates to the age structure and distribution of the population as well as to other population characteristics like sex, religion and cultural patterns. The composition of a population in terms of cultural patterns, religion and sex frequently influences the basic population processes and the possibilities of changing them.

The age structure of a population affects the rate of population growth and vice versa. The age pyramids of the Philippines and the United Kingdom graphically illustrate two different age structures (Figure 1). In the Philippines, 45 per cent of the population is under 15 years of age and the annual growth rate is 3.3 per cent: in the United Kingdom, youngsters aged under 15 account for 20 per cent of the population and the annual growth rate is 0.3 per cent.

In the developing world, more than 40 per cent of the population is under 15 years of age. In the industrialized world, the proportion averages between 20 and 30 per cent. This difference in age structure in itself contributes to the fact that population growth rates are higher in developing than in industrialized nations.

To understand this point, let us suppose that the small family suddenly became the norm in both developing and industrialized nations. In the former, there would still be many more potential parents than in the latter, and therefore the potential rate of growth would be higher. Even if fertility rates dropped to the figures in the industrialized nations, population would continue to grow for at least sixty to seventy years.

The large proportion of young people in developing countries has important implications for development, since this group makes a heavy demand for services like health, education and housing from governments whose financial resources are limited.

Population distribution is another important factor. In 1975, almost 70 per cent of the population of the industrialized world (763 million) lived in urban areas, while slightly less than 30 per cent of the population of the developing world (785 million) were urban dwellers. For example, 86 per cent of the population of Australia and New Zealand is urban; the corresponding figure for the People's Republic of China is 19 per cent. (3) But the urban areas of developing nations are growing almost three times as fast (2.4 per cent) as the urban areas of industrialized nations (0.9 per cent). (4) It is expected that, in the twenty years between 1960 and 1980, the developing world will have more than doubled its urban population. (5) This growth can be attributed to rural-to-urban migration or to migration from smaller to larger urban centres, with the fertility rates of urban residents playing a less important role.

Migratory population shifts - which are seldom anticipated or planned for - place an extra burden both on the area receiving inhabitants and on the area from which the migrants have come. In the typical situation, rural areas in developing countries lose their better-educated youth - the people most capable of future leadership and innovation - to the cities. Migration may so seriously cripple a community that it is forced to discontinue its services and to cut back employment opportunities.

The population debate

Population phenomena affect so many aspects of life at so many different levels - political relations, resources, the environment, food and nutrition,

(1) Population Reference Bureau, 1975 World Population Data Sheet (Washington, D.C.: The Population Reference Bureau, 1975) - in percentages: People's Republic of China: 1.7; India: 2.4; USSR: 1.0; United States: 0.9; Indonesia: 2.6; Japan: 1.3; Brazil: 2.8; Bangladesh: 2.7; Pakistan: 3.1; Nigeria: 2.7 (figures revised annually).
health, social services, education, employment, human rights - that nations, regions and individuals have differing viewpoints about population questions.

Since the time of Malthus, population issues, particularly the way rapid population growth may threaten future human well-being and survival, have been debated. Today, opinions range along a time-honoured continuum from those people who see population growth as a crisis, as the primary cause of all other social problems, to those who seek to encourage population growth to help solve social problems.

There is no lack in the diversity of positions. Some contend that population is a false issue, fostered by wealthy industrialized nations to divert attention from problems faced by developing nations; the real problem, they say, is not population growth - "the population problem" - but the unequal-distribution of wealth and resources, the lack of integrated economic development, over-consumption and the affluent life-style of many industrialized nations which may pose a more direct threat to the preservation of environment and resources than the higher population growth rates of the developing nations. A succinct exposition of the common positions on this question is presented in Figure two below. (1)

The United Nations' first global conference of governments to discuss population issues, the World Population Conference, was held in Bucharest (Romania), from 19 to 30 August 1974. (2) Unlike previous United Nations' population conferences (held in 1954 and 1965), which were composed of specialists discussing technical aspects of demography, reproductive physiology and family planning programmes, the Bucharest conference was made up of governmental and non-governmental delegations examining population questions within a political context. Representatives from 136 nations discussed varied issues like: population policy, urban growth, rural depopulation, migration, social and economic development, women's rights, education and consumption. The major debate at the Bucharest conference concerned the interrelationship between population and development. The polarized views were, on the one hand, that population growth is the overriding "cause" of other social maladies; and on the other, that a wide range of measures is necessary for social and economic development, including measures aimed at fertility decline. At the end of the conference, delegates agreed on a document called the "World Population Plan of Action", which states that: "The promotion of development and improvement of quality of life require co-ordination of action in all major socio-economic fields including that of population ...". (3) The "World Plan" points to the economic relationships between industrialized and developing nations as the basic cause of unequal economic development in the following terms: "The consideration of population problems cannot be reduced to the analysis of population trends only. It must also be borne in mind that the present situation of the developing countries originates in the unequal processes of socio-economic development which have divided peoples since the beginning of the modern era. This inequity still exists and is intensified by lack of equity in international economic relations, with consequent disparity in levels of living." (4)

The Bucharest conference also emphasized the fact that there is no global consensus regarding population phenomena and their significance for development; national population policies reflect the existing variety of political and economic orientations. Of 130 developing countries recently surveyed, thirty-three had official policies aimed at reducing the population growth rate; sixty-four had no policy to reduce the growth rate and no family planning activities; thirty-one officially supported family planning activities (the position of two countries is unknown). (5)


(3) The term "quality of life", as used both by the "World Population Plan of Action" and throughout this report, is not synonymous with the term "standard of living". The material well-being of a people - their standard of living - is usually defined in quantitative terms - the levels of income, of consumption, of consumer goods and essential services, such as electricity, sewerage and water. These measures are at best one index in a much larger quality-of-life complex. There appears to be general consensus that other major components in the concept of quality of life include measures associated with distributive justice, such as opportunity of access to health, education and social services, the quality of social and interpersonal relationships, of cultural and religious affiliations and of environment. The fact that few of these latter qualities can be measured with any exactitude does not in any way decrease their significance. It is important to recognize that, in certain cases, standards of living may be low but quality of life high, and vice-versa.


(5) Ibid., p. 4, paragraph 4.

Some issues in the debate

The issues in the population debate are extremely complex and will not be resolved in the short term. Herein, it is important to recognize the different impact which population processes (births, deaths and migration) have upon nations or societies at different stages of socio-economic development. For instance, in developing nations with "young" populations, school and out-of-school educational systems are typically confronted with both quantitative and qualitative problems. Quantitatively, developing nations face two tasks. They must increase their provision of services (schools, teachers and materials) for the expanding numbers who join their educational systems. At the same time, they must provide for the backlog of those who never entered, who dropped out or who have been withdrawn from school. Qualitatively, they must develop curricula and methods to replace the Eurocentric education which they inherited from their former colonial governments. In industrialized nations with "old" populations, quantitative problems are less pressing and the attention of educational systems tends to be focused upon qualitative improvements.

Different population structures and different levels of development combine to make developing and industrialized nations view similar social issues from different angles. In terms of health care, for instance, developing nations continue to concentrate on decreasing infant mortality and on preventing common infectious diseases. Industrialized nations, having rid themselves of the more common contagious diseases, struggle with unprecedented man-made threats to health, such as air, water and noise pollution and the stresses of modern urban living.

While developing nations wrestle with agrarian reforms, the industrialized nations either produce enough food or have enough capital to purchase large quantities of foodstuffs. Although population growth is not the sole reason for the world's food problem, it is estimated that this growth accounts for about 70 per cent of the medium-term increase in the total demand for food in developing countries. (1)

Within nations, also, ways of looking at population problems differ widely. In multi-ethnic, multi-religious nations, minority groups sometimes perceive governmental population policy (to slow growth or to manage migration) as directed against themselves. In other societies where socio-economic class divisions are deep, under-privileged groups may view programmes to limit fertility (organized by middle- or upper-class groups) as a substitute for the redistribution of wealth or as an attempt to reduce their numbers in order to control them more easily.

Intertwined with this kind of issue are the implications of population composition - socio-economic, religious and cultural/ethnic groupings - for the attainment of human rights and social justice. For example, the status of women and girls is a subject of particular concern today within the general area of social justice. The World Population Conference and, to a greater extent, the International Women's Year Conference in Mexico City in 1975 were forums in which women from developing and industrialized nations alike shared their hopes for equal participation in their countries' development. In the "World Population Plan of Action", women's rights are recognized in the following manner:

"Women have the right to complete integration in the development process particularly by means of an equal access to education and equal participation in social, economic, cultural and political life." (3)

From a population standpoint, what is at stake in a number of nations is the right of women to make informed and conscious decisions about life-cycle events, but this freedom may not easily be obtained in societies where marked inequalities of opportunity exist between men and women.

Whether the population variable is viewed as a minor issue or a major crisis or is given an intermediary degree of importance, it is impossible to assert that the phenomenon of population is unrelated to the present and future quality of life of all people.

WHY POPULATION EDUCATION?

The "World Population Plan of Action" urged the need for population education in the following way:

"Educational institutions in all countries should be encouraged to expand their curricula to include a study of population dynamics and policies, including, where appropriate, family life, responsible parenthood and the relation of population dynamics to socio-economic development and to international relations." (4)

Although the use of the word "curricula" in the recommendation implies schooling, the context of this paragraph within the Plan suggests that all educational settings - school and non-school - are

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included. The audiences are both rural and urban and are also composed of "labour, community and other social leaders, and (...) senior government officials", (1) as well as the general public. Individual population events - births, deaths or migrations - are highly visible. However, the culmination of these events, at the level of the community or the nation or the world, lacks drama, despite the rhetoric that is often employed, such as "the population explosion". Except for mass migrations or deaths in times of war or natural disaster, population changes, even "baby booms", are gradual occurrences, and the casual observer is not likely to detect them as they happen.

Although judgments vary as to the meaning and importance of the impact of population events, it is clear that all people and nations face problems that have population components. At the individual level, for some people, the perception of the problem may result in a decision to have more children, while others may decide to have fewer or no children. It may involve a decision not to marry or to postpone marriage in order to complete an education. It may lead to a decision about where to live, or when and if to move, either within or outside the country. It may also involve decisions to take advantage of health services (where these exist) which might help to prolong life.

At the national level, a country may decide that its population is growing too rapidly and it may therefore create policies which could directly - such as family planning programmes - or indirectly - such as raising the marriage age - influence these trends. Other countries, deciding that they need to expand may develop policies to encourage higher fertility or more immigration. They will then have to determine the desired rate of growth in order to maintain the level of social services that they wish to provide for all citizens.

To separate perceptions of population-related problems into those involving individuals and those involving nations is too simple and misleading. Individual opinions of needs and the actions necessary to fulfill them may coincide with those of the family, of the peer group and of the community. But in some ways or on some issues they may not. The individual might accede to family wishes and marry early, but later, against the advice of family and friends, might decide to migrate to the city.

A community's perception of population-related problems might be in agreement with nationally-stated policy, yet be divergent in some ways or on some issues. For example, a small family size may be seen by a government as the solution to a problem defined as too-rapid population growth. However, to the village community, the problem may be perceived as one of survival and social security, and the solution might be to have large families. Thus, the villagers' solution contributes to what is defined nationally as a problem.

In other cases, individual needs and desires may be in conflict with both community values and nationally-defined goals. The national goal may be population redistribution, and over-crowded agricultural communities may seek to foster emigration to alleviate pressure upon scarce resources. But individuals and families may be reluctant to move and thus break extended family ties or lose land inheritance. To cite another example: despite the policies of a number of western and eastern European countries to encourage larger families, individuals are opting to have fewer children, and birth rates and family size remain low.

Within a population context, population education may help people recognize and define the nature of problems which have population components. It can help them realize better how problems arise and what consequences their decisions and actions will have. Within a development context, population education may be designed to help people comprehend that social and economic development is, to some variable extent, influenced by population processes and that their decisions may depend upon the social and economic status of a society or nation. Within an educational context, population education programmes can contribute in many ways to the general development of education and to innovation and renovation. Since most population issues have economic, social and political components, population education, in seeking to deal with these interactions, can contribute to the reorganization of curricula along interdisciplinary lines. Population education can aid in selecting content which is relevant to the lives of learners and can contribute to the development and use of learner-centred methods of instruction.

The decision to institute a population education programme rests with national or local authorities, who are also responsible for defining the programme's goals and objectives. To institute such an activity, however, is just as relevant and justified for countries which wish to increase their size and/or rate of growth as it is for countries which wish to stabilize their populations, lower their rates of growth or redistribute their populations.

Programmes of population education can contribute to solve either the population or the educational problems faced by individuals and nations. The solutions to these problems depend basically upon social changes that will lead to greater equity and social justice, greater interdependence and self-determination. As an Indian educator recently observed: "By itself, education cannot bring about social change. It is a necessary but not sufficient condition for change. The potential of education as an instrument of change, however, has not been exploited in many Third World

countries. And the same is also true for the industrialized world.

ISSUES IN POPULATION EDUCATION

A number of issues have been debated among population educators over the years. In the remainder of this chapter we raise these issues as a prelude to the discussion that follows. The reader will note that many of these issues are not unique to population education but are shared in varying degrees by educators in other areas.

The rôle of ideology and culture

The nature and scope of educational programmes are influenced by political and ideological orientations, and population education is not an exception to this rule. It is influenced by the views held in a particular society concerning the nature and significance of population matters in social, economic and political development and by the character and function of educational systems as such. Ideological theories and cultures provide a framework for setting goals and filters for selecting content.

People acquire population-related knowledge throughout their lives - a process of absorption which is generally part of a larger process of socialization. Family, kin, peers and community play a dominant rôle in the acquisition of a folk demography - the knowledge, attitudes, values, norms, systems of belief that people come to hold about population-related matters, such as marital and family relationships, social customs, the status and rôle of women and children and the choice of residence. Sometimes this learning is clearly perceived as having population repercussions; most often, however, it is part of the conventional wisdom of the group or culture. One of the goals of population education is to assist learners to identify, examine and understand their folk demography and the implications it has for population decisions. In this way, the folk demography of learners becomes a significant content area for population education.

Identification of cultural differences and sensitivities is an important part of programme planning and development for it raises issues about the relevance of curricula, the adaptation of content and method to meet specific needs and the administration of decentralized programmes.

Levels of aggregation

In many past programmes, the society or "macro" level has been assumed to be the nation or even the world. Indeed, many of the earlier curricula for school programmes emphasized world and national issues. It is becoming increasingly clear, however, that if population education programmes are to be meaningful to learners and more responsive to their needs, they must place more emphasis upon individual and family situations - the micro-level. When attention is focused on the learner, it is obvious that, in many cases, his world, his macro-level may not extend far beyond the boundaries of his village, local area or community. This is particularly true in more isolated rural communities and among learners where literacy level is low but it is an important consideration for school programmes as well.

Thus, planners of population education activities must identify the level of aggregation - the type and size of social group - to which learners are able to relate. To try to widen the learner's view beyond a narrowly-defined world is a legitimate aim but will be unsuccessful if the macro or societal level is too far removed from his experience. Ways must be found to translate family problems into broader terms and to create an awareness today of what the problem might be tomorrow for others.

Decision-making

Few individuals make population-related decisions outside a group context and in many cases, the decision-making unit is the group itself, such as a large family unit in Kenya or a street committee in the Peoples' Republic of China. Less obvious but equally significant is the impact which the group has upon decisions made by individuals and within families. Clarifying these influences is part of the process of creating informed decision-makers. In all cases, the aim is to increase understanding of the inter-relationships between the macro and the micro units of the society. However, the range of options that are theoretically open to individuals and groups may, in reality, be quite limited, due to lack of equity and social justice and to the presence of cultural norms, traditions and taboos.

Relevance and participation

Relevance is the raison d'être of population education. Its goal is to improve learners' and nations' abilities to deal effectively with population issues.


(2) The term was first used by Wayland, S. Population education in relation to Folk Demography and Formal Demography. Columbia Teachers College, New York, 1972. It is further explained in Chapter Four.

(3) In this report, the term "macro" is used to describe any setting beyond the family. Whether that is the village, community, city, state, nation or world will depend on the context.
This is a most practical concern. The challenge facing population educators is to ensure that, in translating this goal into action, the programme retains its focus on the needs of learners, their families, communities and societies. Furthermore, there is increasing recognition that learners need to participate more in the various planning and implementation stages of population education programmes but, in most cases, their participation is still more spoken of than practised. In the absence of mass participation in pre-programme activities, who can stand in for the learners? How does the educator avoid imposing his perception of need on them? Can efforts to increase learners’ participation at the local level be generalized when programmes are being designed for states or regions within countries or when a national programme is being planned?

Levels of programme planning and implementation

Formal educational systems in the developing world and in most industrialized nations are financed and directed largely from the national centre. Deciding how these systems can be responsive to the needs of learners in different parts of the country, in different racial and ethnic groups, in different social and economic classes is another problem for population educators. The academic organization of schools has not always been sufficiently in tune with these differences, and this has contributed to the recent disillusionment over schooling in many parts of the world.

Nationally-directed out-of-school programmes are also likely to face the same problem unless special efforts are made to localize their activities. Decentralization, in both school and out-of-school programmes, of teacher training, of programme planning, of curriculum and material development is usually difficult to achieve because of the large-scale programmes and the usual shortages of resources.

Future orientation and lifelong education

In school programmes, many of the population-related decisions likely to be considered are those that will be made in the future: where to live, when and if to marry, when and if to have children and so on. Even out-of-school programmes for adults educate for future decisions, although this future may not be as distant as it is for many school children. In addition, the repercussions of these decisions may be spread over a number of years. This presents special problems for the population educators, because the situation may change between the end of the educational process and the time for decision. This raises the problem of how best to train for an unknown future, how to reinforce the learning process so that the content will be better retained, how to emphasize the process of finding solutions rather than the solutions themselves.

Viewing population education in a lifelong context emphasizes the importance of further development for both school and out-of-school programmes and the need to link these efforts through all available educational settings and channels. But the linking together of the various parts of the total educational and learning system of a society - school and out-of-school - is quite a complex enterprise, still in the first steps of its development.

Persuasion and prescription

No educational system, anywhere in the world, is free from some degree of persuasion or prescription, despite the theoretical commitment to truth-telling. Training for citizenship and developing the sense of being part of a nation usually involve elements of conditioning. Furthermore, no educational process can be totally value-free, because any selection of facts involves conscious or unconscious value choices.

Population education faces these general problems and is also potentially confronted with a more direct conflict between theory and practice: the degree to which the educational system can or should directly support the population policies of the nation. If the government has determined that the small family shall be the norm, or that migration must take place in order to relieve areas of dense population, or that the country's population should increase, what is the proper and possible role of the educational system? Should the system adopt these prescriptions as educational goals? Or should it assume a value-fair stance in which various points of view are examined (even though some may have more weight than others) and the decision left to the learners?

Obviously, such a statement of the issues is overly simplistic but it helps to focus on one of the key issues facing the population educator in planning and implementing his programme. And even if it is decided that a prescriptive approach is necessary (either because of the severity of a population situation or because government policy would not permit otherwise), the efficacy of prescription is, in certain circumstances, questionable.

Population studies

Population education is not an attempt to develop a new discipline. Although demography and folk demography form the core of the knowledge needed for population education, they do not cover the whole range of issues involved. Facts, theories and concepts from a broad spectrum of academic disciplines and professional fields are needed to help individuals and societies fully understand population interactions and thus the effect of population factors on the quality of their individual and collective lives. The sum of this knowledge is referred to as population studies. These studies raise a number of issues. Since the potential sources of
information are vast, and since culture and ideology, among other things, will play a large role in determining what is most relevant to the needs of any particular group, there is no agreement on what should or should not be included. Various factors and assumptions act as filters in determining the priority given to areas of knowledge and the framework used to organize the knowledge selected for inclusion.

Unfortunately, much of what is known deals with larger population units, making it difficult to extrapolate findings that can be applied to smaller units, like the community, the family and the individual. This encourages the generalized belief that population education deals primarily with national or global concerns, whereas, in reality, the problem is caused by the inadequacy of available data.

Methodological issues

The emphasis on relevance, decision-making and future orientation raises questions concerning the methods to be used in population education activities: are certain methods particularly suited to population education? Intuitively, it might be suggested that methods which emphasize learner participation and the practice of various skills would achieve the results desired by the population educator. For example, it seems that effective decision-making can best be learned through a process which actually involves the making of decisions. However, little evidence exists to support or refute this contention. There are also problems of reinforcement and the transfer of learning from one context to another.

Methodological issues also concern the effectiveness of different ways of adding population education to the school curriculum - whether it should be integrated with other materials or given separate courses - and the way it is related to out-of-school programmes.

Population education and other "educations"

A number of other educational activities share some of the content associated with population education. The greatest confusion that arises concerns population education's relation to sex education, family-life education, environmental education and development education. Differences in goals and objectives give population education a separate identity at the present stage of its development. However, future developments may bring interests closer together and blur present dividing lines.

Population education and the media

Concern about population issues has stimulated activities among people working in the field of information and communication, just as it has stimulates educators. These activities are potentially mutually supporting. Educators certainly need to know what the communicators are doing since informal learning through various media has an impact on the learning that takes place in school and out-of-school settings. However, these activities have differences: first, the educator is concerned essentially with a continuous process of interaction between learners and teachers. Although communication media can be of considerable use to the educator, the media specialist has so far been primarily involved in a process of transmitting information. Second, much of the work in communication has tended to be heavily prescriptive, urging support for particular decisions rather than exploring the consequences of these decisions. In particular, most although not all information and motivation activities have been aimed at supporting family-planning activities and at decreasing family size - aims which, as has been stressed, are not necessarily those of population education.

Research for programme development

Early population education programmes included some research and evaluation components but it will be some time before results are published and disseminated. In the meantime, action-oriented research remains programme-specific and pragmatic. Although it is recognized that programme development cannot always wait for research results, it is equally clear that a broader research agenda needs to be initiated now so that future programmes can be planned more rationally and systematically. This agenda should ideally include synthetic research - investigations that might survey, for example, the relevant literature concerning the nature of the learner and his learning context; basic research - studies that might indicate, for example, how learners acquire population-related concepts in a variety of settings; and programme research - investigations that might establish, for example, the comparative efficacy of different strategies in reaching particular audiences.

The continued absence of research findings in these areas appears to be one of the major barriers to further progress in the conceptual and methodological development of population education.

CONCLUSION

Few of the conceptual and methodological issues confronting population education are likely to be solved in the immediate future. One objective of this study is to identify issues and clarify difficulties so that population educators and educators working in related fields can focus attention on their solution. A second purpose is to identify areas where development is needed and to indicate those that can be dealt with by alternative strategies or by research. In surveying the present status of population education, we recognize that much remains to be accomplished if present population education theory is to match population education practice.
BIBLIOGRAPHY

Chapter One: Overview and Preview

Population issues


Population Education issues


Education: General


Figure 1

Typical age pyramids for fast- and slow-growing populations

Figure 2

Positions AGAINST and FOR the need for special population programmes and policies

<table>
<thead>
<tr>
<th>AGAINST</th>
<th>SUPPORTING</th>
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<tbody>
<tr>
<td>1. The Pro-natalist position</td>
<td>1. The Population Hawk position</td>
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<tr>
<td>- Rapid population growth in a particular country or region is a</td>
<td>- Unrestrained population growth is the principal cause of poverty,</td>
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<td>positive force on grounds of (a) economic development, in that a</td>
<td>malnutrition, environmental disruption, and other social problems.</td>
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<td>larger population provides necessary economies of scale and a</td>
<td>Indeed we are faced with impending catastrophe on food and</td>
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<td>sufficient labour supply; (b) protection of currently</td>
<td>environmental fronts.</td>
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<td>underpopulated areas from covetous neighbours; (c) differentials</td>
<td>- Such a desperate situation necessitates draconian action to</td>
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<td>in fertility among ethnic, racial, religious, or political</td>
<td>restrain population growth, even if coercion is required. &quot;Mutual</td>
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<td>population segments; (d) military and political power and the</td>
<td>coercion, mutually agreed upon.&quot;</td>
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<td>vitality of a younger age structure.</td>
<td>- Population programmes are fine as far as they go, but they are</td>
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<td>2. The revolutionist position</td>
<td>wholly insufficient in scope and strength to meet the desperate</td>
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<td>- Population programmes are mere palliatives to fundamental</td>
<td>situation.</td>
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<td>social and political contradictions which will inevitably lead to</td>
<td>- The Provision of Services position</td>
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<td>a just revolution, and may therefore be viewed as inherently</td>
<td>- Surveys and common sense show that there is a great unmet demand</td>
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<td>counter-revolutionary.</td>
<td>for fertility control in all countries; hence the main problem is</td>
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<td>3. The Anti-colonial and -Genocide positions</td>
<td>to provide modern fertility control to already motivated people.</td>
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<td>- The motives of rich countries which are pushing poor</td>
<td>- Some proponents also hold that the failure of some service</td>
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<td>developing countries to adopt aggressive population programmes are</td>
<td>programmes is due to inadequate fertility control technologies, and</td>
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<td>open to suspicion. These rich countries went through a period of</td>
<td>that the need for technological improvements is urgent.</td>
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<td>rapid population growth as a component of their own development</td>
<td>- The Human Rights position</td>
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<td>processes, and their current efforts to restrain population</td>
<td>- As recognized in the U.N. Tehran Convention (1968), it is a</td>
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<td>growth in the developing countries are an attempt to maintain the</td>
<td>fundamental human right for each person to be able to determine the</td>
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<td>status quo by retarding the development of these countries.</td>
<td>size of his or her own family.</td>
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<td>- One can also see the undue emphasis on population as an attempt</td>
<td>- Furthermore, some argue that each woman has the fundamental right</td>
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<td>on the part of the rich developed countries to &quot;buy development</td>
<td>to the control of her own bodily processes. (This position usually</td>
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<td>cheaply.&quot;</td>
<td>leads to support for abortion as well as contraception.)</td>
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<td>- Finally, a person who is very suspicious of the motives of the</td>
<td>- Health is also a basic human right, which population programmes</td>
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<td>developed countries could see in their population efforts an</td>
<td>help to achieve through a variety of direct and indirect pathways,</td>
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<td>attempt to limit or reduce the relative or absolute size of poor</td>
<td>including the direct medical benefits of increased child spacing on</td>
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<td>and largely non-white populations. Such a practice could be seen</td>
<td>maternal and child health, and the indirect effects of reducing the</td>
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<td>as a subtle form of genocide deriving from racist or colonialist</td>
<td>incidence of dangerous illegal abortions.</td>
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<td>motives.</td>
<td>- The Human Rights position</td>
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<td>4. The Over-consumption position</td>
<td>- As recognized in the U.N. Tehran Convention (1968), it is a</td>
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<td>- So-called &quot;population problems&quot; are actually problems of</td>
<td>fundamental human right for each person to be able to determine the</td>
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<td>resource scarcity and environmental deterioration which derive</td>
<td>size of his or her own family.</td>
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<td>primarily from activities of the rich developed countries, and</td>
<td>- Furthermore, some argue that each woman has the fundamental right</td>
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<td>not from high fertility in the developing countries.</td>
<td>to the control of her own bodily processes. (This position usually</td>
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<td>- Even if fertility is too high in the developing countries, this is</td>
<td>leads to support for abortion as well as contraception.)</td>
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<td>a consequence of their poverty, which in turn results from over-</td>
<td>- Health is also a basic human right, which population programmes</td>
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<td>consumption of the world's scarce resources by rich countries.</td>
<td>help to achieve through a variety of direct and indirect pathways,</td>
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<td>5. The Accommodationist position</td>
<td>including the direct medical benefits of increased child spacing on</td>
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<tr>
<td>- As in the past, growing numbers can be readily</td>
<td>maternal and child health, and the indirect effects of reducing the</td>
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<td>incidence of dangerous illegal abortions.</td>
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AGAINST (continued)

- The world has already shown that Malthus' predictions were incorrect; the same is true of the neo-Malthusian predictions and solutions.
- That which is termed "overpopulation" in a given situation is really a matter of underemployment. A humane and properly structured economy can provide employment and the means of subsistence for all people, no matter what the size of the population.

6. The Problem-is-Population-Distribution position
- It is not numbers per se which are causing population problems, but their distribution in space. Many areas of the world (or country) are underpopulated; others have too many people in too small an area.
- Instead of efforts to moderate the rate of numbers growth, governments should undertake efforts to reduce rural-urban flows and bring about a more even distribution of population on the available land.

7. The Mortality and Social Security position
- High fertility is a response to high mortality and morbidity; bring these levels down and fertility will decline naturally.
- Living children are the primary means by which poor people can achieve security in old age. Hence a reduction in infant and child mortality levels or provision of alternative forms of social security would lead to a reduction in fertility.

8. The Status and Roles of Women position
- High fertility levels are perpetuated by norms and practices which define women primarily as procreative agents.
- As long as women's economic and social status depend largely or solely upon the number of children they bear, there is little possibility that societal fertility will decline substantially.

9. The Religious Doctrinal position
- In one form this position holds that population is not a serious problem. Be fruitful and multiply, God will provide.
- In another form this position holds that while current rates of population growth are a serious problem, the primary instruments to deal with them are morally unacceptable, e.g., modern contraception and surgical sterilization are "unnatural," abortion is "murder."

10. The Medical Risk position
- The goal of fertility reduction is not worth the medical risks of the primary instruments of population programmes. Oral contraceptives and intrauterine devices have measurable, if small, short-term risks, and some people fear their long-term effects. Sterilization and abortion are operative procedures, all of which have an element of risk, particularly when performed outside the hospital.

SUPPORTING (continued)

- An effective population programme therefore is an essential component of any sensible development programme.
11. The Holistic Development position
- Fertility decline is a natural concomitant of social and economic development, as proven by the European Demographic Transition.
- Most of the fertility decline in developing countries with family planning programmes therefore derives from the impact of social and economic development rather than from the programmes themselves.
- International assistance for development is too heavily concentrated upon population programmes, and is short-changing general development programmes.

- Neither population programmes nor economic development as presently pursued will bring about necessary fertility declines.
- Fertility will not decline until the basic causes of high fertility - poverty, ignorance, fatalism, etc. - are eliminated through social policies which result in a redistribution of power and wealth among the rich and poor, both within and among nations.

Chapter II

The development of population education activities

INTRODUCTION

There is nothing new about including population content in educational materials. It is difficult to investigate the history or geography of any region, country or community without considering the changing patterns in the size and distribution of its population. The causes and consequences of opening frontiers and other ways of allowing or provoking internal and international migration are universal historical themes. Biology, too, has been concerned with the size, distribution and reproduction of human and animal populations.

In these and other cases, the information about the population has reflected the needs and objectives of the particular discipline and has not usually been a part of a systematic effort to understand the implications of demographic phenomena for the individual and society. The concern for instituting programmes aimed specifically at systematic population learning is essentially a development which began in the mid-sixties and which did not gain momentum until the early seventies. The relative newness of population education programmes should be borne in mind when attempting to understand the development of this area of educational concern.

THE EMERGENCE OF THE CONCEPT OF POPULATION EDUCATION

It is not usual for educators, when asked to tackle emerging social problems, to develop new and specific educational programmes. Thus, in response to growing public concern about human sexuality, about out-of-wedlock pregnancies and increasing venereal disease among young people in some industrialized nations, there was, in the early years of the twentieth century, a call for programmes of sex education. In the sixties and seventies, a number of developing countries also undertook sex education programmes for the same reasons. More recently, in response to anxiety about the deterioration of the natural environment, there has been a growing demand for environmental education in both industrialized and developing countries. Further parallels could be drawn with respect to drug education, consumers' education and so forth ...

What is common to many of these new "educations" is that the impetus for their development came originally not from educators who bore the day-to-day responsibility for educational programmes but from specialists in the problem areas - both scholars and activists. This has also been the case with population education.

The first call for "population education" that has come to the specialists' attention is that of the Population Commission of Sweden which, in 1935, was concerned by the declining rates of birth in that country:

"No people with unimpaired energy and the will to live can observe such a tendency toward its own decline as is now obvious in this country and at the same time fail to undertake strong measures to combat the situation. First of all, measures will have to be instituted to encourage marriage, particularly in the younger age groups, and the bearing of children. Through wise diffusion of information, a feeling of responsibility for our people's future and welfare may be awakened in all social classes. But no matter how important this may be, the need of a large amount of socio-political intervention in order to create economic security and to improve the material welfare of our people must be frankly faced. (...) Especially important from an ideological point of view is a comprehensive and truly vigorous educational campaign to clarify aims as well as means regarding the population question."(1)

While a number of out-of-school activities were undertaken in response to this educational campaign, this scheme met with little success in the formal educational system.

A similar concern about population decline and its educational implications was expressed in 1937 and 1938 in the United States. In 1943, demographers suggested that population studies be included as a content area in the school curriculum. In one of the series of pamphlets on "Problems of American Civilization", prepared for the National Education Association of the United States, Frank Lorimer and Fred Osborn urged that what would today be called a population education programme

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should be considered for United States schools.\(^1\)

The population of the United States then stood at 135,000,000 and the fear was that, if the birth rate decline continued, the dwindling population would create a host of problems and it was hoped that to involve the school would create a greater awareness of population matters.

Some twenty years later, again in the United States, Philip Hauser urged the inclusion of population content in the school curriculum. By then, the perception of the problem had changed; concern had shifted to the phenomenon of rapid population growth in both the industrialized and developing worlds.\(^2\)

Both population decline and population growth, at different times and in response to different conditions, have thus been offered as justification for education about population in the schools. However, in neither case was public concern acute enough to oblige the schools to take note of these admonitions. No apparent modifications in curriculum were made as a result of either publication.

Population content in early family-planning information and motivation programmes

In the fifties and sixties, in a number of countries, motivational activities for adults provided information about the consequences of high birth rates and growing populations. These efforts came largely from governmental and non-governmental family-planning programmes. Later, family planning organizations developed special "information, education and communication" (I.E.C.) departments. The initials "IEC" or "IEM" (information, education and motivation) then came into common use to describe a form of communication which was heavily weighted toward the mass media and which often oversimplified complex issues.

Whether directed at policy-makers or village mothers, the purpose of family planning information activity, in the narrow sense, was to create an awareness that the number and frequency of births could be controlled, especially by using modern contraceptive techniques; to present the advantages of this reduction in births; and to overcome the often deeply-rooted resistance to family-planning. This resistance came, in part, from concern about physical safety, for instance, as regards the intra-uterine devices; in part, from worry about political integrity, as regards, for example, foreign analysis of a country's needs; and, in part, from anxiety about an existing social order which does not ensure security for parents in their old age without enough children to help them. Underlying these worries was the fact that, for many peoples, to have frequent and numerous births was itself a value deeply embedded in a sense of self and in family and community obligations. In addition, infant mortality was high and chances of survival even for older children quite low.

The need for urgent action in the fields of family planning and the fact that many motivational campaigns were carried out through mass media helps to explain the over-simplified dogmatism of assertions like "The small family is a happy family". This type of claim hardly applies in all cases, even within a very localized setting, nor at all times, and it certainly does not hint at the complexity of the issues which affect family size. This dogmatism was often combined with a reluctance to mention the term "family planning" at all because of fears that it would cause the whole message to be rejected.\(^3\)


\(^{3}\) It is important that family planning be distinguished from birth control, as illustrated by the following citations:

"...We must avoid confusing birth control with its regulation (family planning). Family planning, made possible by the conquests of modern science, can be an effective means of the liberation of the female half of mankind in all societies, developed as well as under-developed. It does not necessarily imply birth control in any way. It is in the obvious interest of its promoters to break unequivocally with the neo-malthusian trend".


"A clear distinction exists between family planning and birth control. The aim of the former is to ensure the equilibrium of the individual and the family, and has been defined as an attempt by the individual to choose the number and spacing of his children and to make his reproductive behaviour correspond with his goals, values and personal circumstances. By birth control, on the other hand, is implied the large-scale use of contraceptive methods, and perhaps even abortion, with a view to restricting a population's growth rate. The latter is therefore of a much more systematic nature than family planning".

\(\text{[Paraphrased from Pradervand, P. "L'élaboration et la mise en oeuvre de politiques de population dans le Tiers Monde: obstacles et possibilités", in:"Développement et Civilisations, Revue Trimestrielle No.47-48, mars/juin 1972. IRFED (Institut International de Recherche et de Formation) p. 131].}\)
Reaction against the message implicit in early activities that reducing family size is an easy solution to complex personal and national problems has produced a more tentative approach to family planning. Today, family planning programmes have broadened their horizon and a more open approach to family planning information has developed. More attention is now being paid to a combination of measures aimed at achieving a better quality of life including (but not limited to) family planning. There is also increasing integration between family planning programmes and other programmes aimed at national development and community and family welfare, like health, agriculture and community development.

**Beginnings of school population education**

Family planning programmes (and their related IEC or IEM activities) in the developing world were at first not always as successful as had been hoped and planned. Some programme organizers claimed that this lack of efficacy was the result of misdirected effort. They argued that educational efforts aimed at adults had to overcome deeply-entrenched traditional learning and they suggested that younger age groups might be more appropriate educational targets: the school, with its captive audience, was the obvious place to start.

At the same time, in Asia especially, development planners and decision-makers became aware of the need to educate the general public better about the interaction between social and economic growth and population phenomena. Here, too, the school was seen as the institution which could effectively achieve this kind of understanding. Educators anxious about the relevance of school learning and the need to revise curricula to include content of greater immediacy and utility became aware of the contribution which population-family life education might make towards these ends.

From this combination of interest and pressure, school programmes of population education began to emerge. The first national school programmes were developed in Asia: in India, beginning in 1969, then in the Philippines and the Republic of Korea in 1970. In Latin America, experimental programmes began at the University del Valle in Cali, Colombia, in 1967, and at the national training centre in Chile in the late sixties.

The United Nations Fund for Population Activities (UNFPA) played an important rôle in understanding the value of and in providing funds for population education from the late sixties onwards. Unesco, as the United Nations' agency concerned with education, also became involved during the same period. Unesco held its first consultation of interested scholars in 1967,(1) The Organization's mandate was given by the Executive Board in 1967 and by its General Conference in 1968.(2)

In 1970, a major workshop was held under the auspices of the Unesco Regional Office for Education in Bangkok. This meeting had considerable impact: the published report has been widely used and a large number of the participants are still involved in population education activities.(3) The Unesco Regional Office in Santiago held two expert meetings: in 1970, on population education(4) and, in 1971, on sex education(5). In the same year, the Unesco Regional Office for Education in Africa (Dakar) organized a seminar on Population, Education and Development.(6) Population education activities have developed much more slowly in the Arab States region, a seminar being held only in 1976.(7)

Many of the school curricula that were developed subsequently were rather abstract and far removed from students' own life situations. The population problem was dealt with primarily at national, regional and global levels, with little attention paid to individual, family or community decision-making. In the very early stages of development in Asia, population education was often perceived as a euphemism for sex education - and its proposed inclusion in the school curriculum was almost everywhere opposed. Educational authorities inferred that, if the goal of population education was fertility regulation, then the content would deal with human reproduction and methods of contraception. This is not the case, as we shall see in Chapters Three and Four.

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(1) Special Committee of Experts on the definition of Unesco's responsibilities in the field of population, Unesco, Paris, 6-12 July 1967.
(2) Unesco, Executive Board, resolution 4.4.1, 1967 and General Conference, Resolution 1.241, 1968. See also, Resolution 1.21, 1970.
(5) Unesco Regional Office for Education in Latin America and the Caribbean, Regional Meeting of experts on sex education, Santiago, 8-13 November 1971, Final Report, 1971.
(6) Unesco, Population, Education, Development in Africa South of the Sahara, Dakar, 29 November-4 December 1971, op.cit. (see p.40 of this report).
The 1970 Bangkok Workshop felt that a formal definition would be helpful and population education was described as:

"An educational programme which provides for a study of the population situation in the family, community, nation and world, with the purpose of developing in the students rational and responsible attitudes and behaviour toward that situation."(1)

In Latin America, the initial concern of health ministries was how to solve population problems by means of family planning programmes. However, as educators became involved, the approach shifted towards acquiring an understanding of population issues.

In the 1970 Santiago Meeting of Experts on Population-Education mentioned earlier, four priority fields and their objectives were marked out. These main areas covered: (1) Man and his environment, (2) the demographic situation and its economic, social and cultural ramifications, (3) full and active participation in the economic life of a country including the production, distribution and consumption of goods and services, (4) family and sexual education. Three years later, the following definition was given in a Regional Seminar on population education programming:

"Population education has been defined as a multidisciplinary educational effort which reveals the factors that influence the qualitative and quantitative characteristics of the human population and which contributes to the preparation of the individual in the areas of sexual education, family life education, civics, population dynamics, and environmental education, to the end that the individual be aware and responsible in defining his duty and participation in the improvement of the quality of life in his culture during his epoch. (Approximate translation from Spanish)"(2)

The African viewpoint is well summarized in the report of the 1971 Unesco Meeting on Population-Education-Development in Africa South of the Sahara:

"... In the final analysis, therefore, population education only makes sense if it is part of 'education for development' that is, education keyed to serve the various sectorial - economic, social, cultural - policies which in turn form part of the overall development strategy..."(3)

Beginnings of out-of-school population education

In the first few years of development (the mid- to late sixties), population education was primarily an in-school process. However, in the out-of-school sector in much of the developing world, too, there already existed a variety of educational programmes with goals and objectives of population change. In general, these programmes were oriented towards adults and their management of fertility problems. Out-of-school children and youth were not a prime target group.

Family planning organizations quickly recognized the need to develop strategies that would reach and educate the large numbers of youngsters - a potentially important audience - who could not benefit from school programmes of population education since a majority of them had dropped out of or been withdrawn from school before reaching the upper grades where most school programmes began(4). But it soon became apparent that the real educational need was for an understanding of issues other than fertility.

Thus, what began as family planning information for adults and then widened to include out-of-school young people gradually developed into the concept of out-of-school population education (as discussed in Chapter Eight). The development of these out-of-school population education programmes (unlike family planning programmes for out-of-school youngsters) is a relatively new phenomenon, dating from the early seventies.

Many of the agencies and institutions which had an interest in school education turned their attention to out-of-school population education as well. Within the United Nations, a number of sister agencies became involved: the International Labour Organization (ILO), the Food and Agriculture Organization (FAO) and World Health Organization (WHO), for example, have each developed a broad range of out-of-school population education activities and programmes.

The mandate of the Food and Agriculture Organization (FAO), for its work in population education, derives from the 14th session of the FAO Conference in 1967. Prior to this, FAO's chief population activities consisted of research, advisory services, training, fellowships and publications in population aspects of agricultural development planning, collection of population-related statistics, and projections of agricultural population and labour force. In 1968, with the introduction of the Programme for Better Family Living (PBFL), and particularly after 1973, the agency's population programme was expanded to include: (1) the systematic consideration of relevant demographic and population

(1) Unesco, Bangkok, op. cit, p.13.
(3) Unesco, Regional Office for Education in Africa. op. cit, p. 23.
components in the formulation of integrated approaches to rural development and (2) the introduction of population education, communication and related research activities in agricultural and home economics education, training, extension, co-operatives, land settlement schemes, and other rural development programmes.

FAO views population education as an educational process which enables people to recognize and understand the implication of population factors for the well-being of the individual, the family and society. Comprehensive rural development itself is viewed as the most urgent and promising long-term solution to the problems of excessive population growth and migration. To achieve its goals, FAO is engaged in: (1) the analysis of related investigations to establish a sound basis for the formulation of (and development of essential content for) population education efforts which are appropriate for introduction into rural development programmes; (2) encouraging rural programme administrators to strengthen the social and economic dimensions, including population dimensions of their programmes; and (3) providing assistance to institutions and agencies, as requested, in staff training, the development of suitable training and teaching materials, the determination of effective training and teaching methods, related action research activities, and the development of skills in programme evaluation in this field.

To this end, FAO's activities have included inter alia the conduct of: (1) regional workshops for FAO country and regional personnel to introduce FAO population programmes and assess programme development opportunities in the countries and regions, (2) regional seminars on population problems as related to food and agricultural development (for high level agricultural and rural development country officials), (3) a regional seminar on the role of women in integrated rural development, with emphasis on population problems, (4) regional workshops on population education in the in-service staff training programmes of rural development agencies (for agency administrators, programme supervisors and staff trainers), and (5) regional workshops on the introduction of population concepts in the curricula of rural development training institutions (for professors of farm and home management, food and nutrition, rural sociology, agriculture economics and home economics).(1)

The International Labour Organization's Governing Body laid down, at its 173rd Session in November 1968, "practical lines of action which included: the promotion of information and educational activities in the field of population and family planning, through workers' education, labour welfare and co-operative and rural institutions' programmes; research on the demographic aspects of social policy and action to stimulate the participation of social security and medical services in the promotion of family planning. With the financial support of UNFPA, ILO action in the population field has accordingly developed within this framework. The approach has, from the outset, been governed by the following basic principles: action to moderate fertility, including family planning programmes, is not meant to be a substitute for but an accelerator of developmental efforts; it is for each nation to formulate its own population policy and it is recognised that for some countries a larger population may be the desired goal; there should be recognition of the individual's right to decide on the number and spacing of children based on an appreciation of family economics and family welfare; ILO action should form an integrated part of the efforts of the entire United Nations system to assist member States in tackling their population problems. Finally, ILO programmes should assist in furthering and consolidating the fundamental social purposes of the ILO.

Educational programmes have been launched with a view to cultivating among the ILO's constituents, as well as in co-operative circles, an awareness and understanding of population problems together with their relevance to general national development as well as to such specific labour objectives as improving living standards through increased employment, better working conditions and, especially, the enhancement of the workers' welfare. In this way it is hoped to create a favourable climate for rational debate on population issues where they still remain controversial and to help strengthen commitment to policies in countries where they have already been adopted."(2)

"The ILO, with its strong links with trade unions and workers' education movements, not to mention vocational training programmes in the urban areas together with its connections with co-operation organisations in the rural areas, already has an institutional framework

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on which it can graft a population education programme (...) which looks at the impact of demographic forces on the social and economic relationships at the family level as part, but only part, of the greater problem and programme of social and economic development. "(1)

The activities of the World Health Organization (WHO) range from family-planning services to health education, both in school and out-of-school; the teaching of human sexuality in schools for health professionals; and the training of personnel.

In its educational approach WHO has very consistently tried to develop education with respect to human reproduction, sexuality, family planning and spacing, sexually transmitted diseases and related matters, as part of the general content of education in health aimed at an improvement in the quality of life, and of necessity considered as part of general socio-economic development. Health education in the formal school system would be considered as incomplete without these elements - though naturally the choice of how much should be included must remain a matter of national choice and decision.

In the non-governmental sector, organizations such as World Education, International Planned Parenthood Federation (I. P. P. F.) and the World Assembly of Youth (W. A. Y.) have been especially active in out-of-school activities.

STRATEGIC PERSPECTIVES

On a world basis, the number of national-level population education programmes is as yet relatively small. Although there have been different projects in more than fifty countries, less than twenty have so far committed themselves to comprehensive national programmes.

The purpose of this section is not to provide a detailed "geography" of population education activities - region by region or country by country - but simply to indicate the different approaches or strategies of development which regions and nations have adopted in order to initiate and implement school and out-of-school population education activities. Specific examples have been chosen to illustrate the scope and character of programme development. It should not be inferred that failure to mention other regional or national programme activities reflects anything but the need for brevity: neither should it be concluded that the strategies discussed are similar in all respects within all regions or nations. (2)

Population education activities have been stimulated and initiated in a variety of ways. A strategy common to Asia and Latin America has been the regional seminar workshop sponsored by Unesco with financial assistance from UNFPA. Typically, this approach of associating educational decision-makers from member states has had two aims: to inform educators of the nature, objectives and relevance of population education programmes and to assist them with the processes of planning and implementation. In the first exercise of this kind - the regional workshop on population and family education (Unesco, Bangkok, Thailand, 1970) (3) - educators from thirteen member states in Asia undertook the task of preparing a statement of the objectives of population education, suggesting strategies for establishing a programme, outlining content for incorporation in school curricula in the social and natural sciences, and preparing a set of draft sample instructional materials in mathematics, science and social studies. (4)

The Latin American Regional Seminar on Population Education Programmes (Unesco, Santiago, Chile, 1974) had a different function for it followed the initiation of national programmes. Its task was to evaluate progress and to establish general lines of future regional activity. (5) The 1975 Regional Workshop Course on Population Education (Unesco, Santiago, Chile, 1975), attended by representatives of education ministries from eleven nations, established the objectives and curriculum content for population education after analysing the different stages of socio-economic development and the educational and demographic indicators


(2) Readers requiring more detailed statements of specific regional programmes or the range of activities within a particular country should address their requests either to Unesco Headquarters, Paris or to the offices listed in Appendix A.


(5) Unesco Regional Office for education in Latin America and the Caribbean. Seminario Regional sobre Programación de Educación en Población, op. cit.
within the region. (1) This work, carried out within the framework of post-World Population Conference activities, was a first step towards achieving a Latin American focus on educational activities connected with population and socio-economic development.

Regional workshops and seminars have been used for a variety of other purposes, too. In Asia and Latin America, there has been a need to make educational planners and administrators more aware of the close interaction between population processes and educational development. An example of this type of effort was the Population Dynamics and Educational Planning Seminar (Unesco, Santiago, Chile, 1975). (2) One of the conclusions of this seminar stresses that traditional educational structures can no longer satisfy the present social demand for education and that the urgent task for educational planners was to find new and systemic answers to that demand. It was also concluded that educational planning should develop new methodologies which would take into consideration the concrete needs of different population groups at national, sub-national and local levels. Accordingly, the Unesco Regional Office has adopted a new approach towards the development of such methodologies, and experimental implementation in two Latin American countries will begin shortly.

Within the Asian region particularly, regional seminars and workshops have been used to stimulate and strengthen certain aspects of national programme development. Workshop seminars have been devoted to programme needs in teacher education, out-of-school strategies of programme implementation and the possibilities of including population studies in post-secondary institutions.

Establishing population education programmes at the national level (in Asia beginning in the late sixties and in Latin America in the early seventies) (3) created a need for skilled assistance in implementing programmes. In order to make scarce specialist manpower available when required, the Unesco Regional Offices in Asia and Latin America developed the strategies of the regional population education adviser and the mobile team for population education. Regional advisers are responsible for stimulating the development and implementation of population education programmes within member states. In Asia and Latin America, the mobile teams provide specialist skills in population education programming and backstopping for both the school and out-of-school sectors, and they carry out research in connexion with these programmes. In Sub-Saharan Africa and the Arab States, national programmes are in an early stage of development; in 1975, Unesco appointed population education advisers to assist in initiating and implementing programmes in both regions.

A further programme need which emerged was the demand for relevant population-related educational materials, particularly those which might provide teacher educators and curriculum developers with a knowledge of the content of population studies. Unesco, with funding from UNFPA, accordingly initiated regional source books for population education in Asia (1975) (4), Africa (now being compiled) and Latin America (in the initial stages of preparation). The purpose of these volumes is to provide educators with a background of regional population studies on which they may draw in developing curricula or in writing national source books. (5) Some Asian nations, notably Thailand and the Philippines, have already published national source books: in the case of Thailand with the aid of Unesco and the Colombo Plan; (6) and in the Philippines under the sponsorship of the Family Planning Organization. (7)

Source books, at both regional and national levels, take time to prepare and publish. In order to meet what were (and still are) pressing demands for information, Unesco has established in Bangkok and Santiago documentation and clearing-house centres for population education materials. (8)

Some national activities

A variety of strategies has been used in the development of programmes of population education at national and sub-national levels. Often, the approaches parallel those adopted at a regional level. For example, in order to stimulate national effort, Jamaica, Ghana, Togo, Nicaragua, and Venezuela created programme interest through national seminars. Other national programmes, like those of

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(1) Unesco Regional Office for Education in Latin America and the Caribbean. Curso-Taller Regional de Educación en Población (Santiago, 20 de Octubre-14 de Noviembre de 1975). Informe Final.
(2) Unesco Regional Office for Education in Latin America and the Caribbean. Seminario Regional de Especialistas en Dinámica de la Población y Planificación de la Educación en América Latina y el Caribe. Santiago, Informe Final, 1976.
(3) Unesco, Santiago, op. cit (see p. 43 of this report).
(5) The Asian and African source books in population education are more fully discussed and described in Chapter 4.
(6) Population Education Project, Mahidol University, Department of Education, Faculty of Social Sciences and Humanities.
(8) See in Appendix A the addresses of the clearing houses of Bangkok and Santiago.
Thailand, Sri Lanka, the Philippines and El Salvador, have strengthened their skilled human resources through scholarship and internal training programmes.

As regards programme scope, some nations have attempted an integrated infusion of population education into all levels of the formal education system and have also given attention to out-of-school programmes. The Republic of Korea is one such country. In 1973, UNFPA provided financial assistance to the Central Education Research Institute (later the Korean Education Development Institute) to develop instructional materials in population education for grades 1 to 3. In 1974, the Korean Ministry of Education prepared a master plan for population education and obtained funding from UNFPA. The plan has three components: population education in elementary and secondary schools; population education in colleges; and population education in the out-of-school sector. Instructional materials and teachers' guides were prepared for grades 4 to 12, were field-tested and then finalized for dissemination on a nation-wide scale. Two documents, entitled Approaches to Curriculum Organization for Population Education(1) and Curriculum Development for Population Education(2) were also published. Teacher educators were trained, in a five-week course, to provide guidance for the general body of teachers in handling population education content. For the out-of-school sectors, three programmes - one lecture-type, one lecture-audio-visual type and one consisting of thirteen units of programmed instruction - were developed and field-tested.

Some nations have introduced population education only at certain levels of schooling - usually the upper primary or secondary. Sri Lanka is a good example. With financial assistance from UNFPA, the Ministry of Education began in 1973 to introduce population education materials in grades 6 to 9. Instructional materials were initially prepared for grades 6 and 7, tried out in schools and given their final form in the light of feedback. Materials for grades 8 and 9 were then developed and tested. A number of teacher educators were trained to assist colleagues in the task of implementation. Curriculum materials were also prepared for a course to be offered in teachers' colleges.

In some other countries, more modest beginnings were made by, for example, reviewing what is already occurring in schools and/or by developing prototype programmes and materials for sub-national trial. Chile provides an example of the former type of action. There, Unesco supported a diagnostic study by the Department of Geography, University of Chile, whose aim was to review the content of existing curricula as a basis for developing a new programme of population education. In 1971, Unesco assisted an experimental programme which had been begun a few years earlier at Universidad del Valle in Cali (Colombia). A series of teaching materials and experimental guides was published so that population concepts could be integrated into the Colombian education system from third-year primary to sixth-year secondary.(3)

The Tunisian experimental project involving twelve high schools, which was developed with UNFPA and UNESCO assistance, has a very large component of sex education.(4) It was evaluated in the autumn of 1976 and was to be eventually generalized during the following academic years in all high schools and teacher training institutes.

Finally, there are developing nations which have a wide range of activities related to population education but which have as yet no co-ordinated programme of implementation. Morocco, which has expressed the need for a well-structured programme, is one example. In 1973, for the use of natural-science teachers, the country produced a source book on human reproduction which combined various interdisciplinary aspects of demography, family planning and human reproduction.(5) This book was pre-tested before its use was generalized. Other recent activities include experiments made to infuse demographic concepts into geography, civics and Islamic education.

The kinds of administrative structure used to implement population education programmes have also differed widely. To cite examples from the Asian region: Sri Lanka, Malaysia and Indonesia built curriculum cells within national ministries of education to achieve implementation in the schools. On the other hand, India and the Republic of Korea initiated programmes from a base of educational research and development institutes. In Thailand, much of the initial background development of population education was undertaken by

2 Korean Educational Development Institute: Curriculum development for population education in elementary, middle and high schools, (Research Report No. 18), Seoul, Korea, March 1975, 218 p.
3 Teaching Guides on Demography, Ecology, Sex Education and Family Life Education published (mimeo) by the Proyecto de Educación en Población, Universidad del Valle, División de Salud, CUIP, Cali, Colombia, 1973, Provisional version.
4 Project d'intégration de l'éducation en planning familial et population dans l'enseignement secondaire.
Mahidol University before implementation by the Ministry of Education. (1)

Out-of-school population education programmes are generally linked to or integrated with community welfare or adult education programmes, sponsored separately or jointly by governmental and non-governmental organizations. Literacy-population education programmes provide one example. In India, Literacy House (a non-governmental organization) has been active in family-life planning and has developed a range of adult literacy programmes which include population components. In Thailand a functional literacy and family-life planning project has been initiated and implemented by the Ministry of Education in association with World Education. (2) In Afghanistan, through the Ministry of Education, the Government is developing a literacy project under the title Family Health and Adult Education, including population and family planning concepts for rural women. This project has a strong emphasis on staff training and development of materials.

There are many other examples of links with adult and community education programmes. For example, Indonesia developed (through the Ministry of Education) a population education programme for trainees in community education with the aim of reaching adults and young people throughout the nation. At a more international level, the Regional Centre of Adult Education and Functional Literacy for Latin America (CREFAL) assigned a specialist to develop population education components for the centre's activities. (3)

These examples of co-operation do not, however, adequately illustrate either the diversity of out-of-school programme development or the wide array of organizations involved. For example, in Africa South of the Sahara, the American Friends Service Committee (Philadelphia, the Service Quaker (Dakar, Senegal and the International Development Research Centre (IDRC) (Ottawa, Canada) organized at Bamako (Mali) in 1973, the first international seminar on sex education (in a broad family-life context) for French-speaking Sub-Saharan African countries. (4) IDRC's efforts have been helped by the publication of the monthly magazine Family and Development and by regular meetings of countries' representatives to discuss problems of information materials and teacher training.

ILO has a team of regional advisers, both French and English-speaking, in Addis Abeba, who have organized, since 1973, regional seminars in the United Republic of Cameroon, Ghana, Togo and Gambia. These are attended by workers from the organized sectors and by members of co-operatives whom the seminars try to orient towards family planning and family welfare subjects. Trade union organizations have also been involved in out-of-school population education. FAO has attempted to interest agricultural planners in population factors through regional seminars, such as the one held in Tangiers from 3 to 14 November 1975 on Agriculture Planning and Population.

This diversity of activity at a regional level often finds a parallel at the national level. In Kenya, FAO's Programme for Better Family Living stresses the importance of integrated planning of educational and development activities, from national to local levels, and seeks to introduce population issues within this context. Pre-service courses have been developed, in collaboration with training colleges and institutes for agricultural extension agents. In-service workshops - which bring together workers in health, agriculture, community development, social work, nutrition and family planning - provide training and an opportunity to plan integrated programme activities, as well as to develop educational materials in order to reach rural families, especially women's groups.

Egypt provides another example. There, ILO has been active in workers' education in co-operation with the Arab Socialist Political Party and the Workers' Syndicate. The Journalistes' Syndicate in Cairo has held national and regional seminars on population issues related to development problems, while the Regional Centre for Functional Literacy in Rural Areas for the Arab States (ASFEC) and the Arab Organization for Education, Culture and Science (ALECSO) have developed materials for Egyptian literacy programmes.

In the industrialized world, a number of nations have already attained relatively low rates of population growth through a balance of low birth and death rates. Since population problems are generally seen by most of these countries as problems of growth, interest in the subject domestically has tended to be minimal. In fact, many of these nations, particularly the socialist countries of Eastern Europe, have been worried about declining growth rates and governmental programmes are purposefully pronatalist. Although population

(1) National Council of Educational Research and Training, New Delhi (India);
Central Education Research Institute/Korean Education Development Institute, Seoul (Republic of Korea).
Department of Education, Mahidol University, Bangkok (Thailand).
(2) See World Education Publications and Monographs, New York.
(3) See for example, Unesco/CREFAL y Gobierno de la República de El Salvador, Ministerio de Educación, Dirección de Educación de Adultos: Primer Seminario Operacional Latinoamericano sobre Educación Funcional de Adultos con el Componente de Educación Familiar, Zapotitlán, 26 de Noviembre - 21 de Diciembre de 1973, Informe Final, No.1 and 2, 1974.

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education activities can be as responsive to this problem as they are to problems of rapid growth at present few organized population education activities exist in Western or Eastern Europe.

In Western Europe, North America and Japan, a number of groups have been encouraging preservation of the environment and have helped develop environmental education activities in a variety of educational settings. These programmes usually include some basic population concepts but, in most instances, both content and approach fall short of the objectives set for population education.

Governmental population commissions in a number of countries including Australia, the United Kingdom and the United States of America, have been recommending the development of population education programmes but the educational response generally has been limited. In the United States, where education is decentralized, there is only one state school system (Washington) and one city school system (Baltimore, Maryland) with a recognizable commitment to a population education programme. (1) Programmes of population education training, research and curriculum development have difficulty obtaining funds for their projects. Yet, despite the lack of clearly-visible activities at national or state level, there seems to be considerable activity locally, thanks mainly to personal interest by individual teachers. (2)

Scientific and activist organizations which have played a role in population education include the Population Council, the Population Institute, Zero Population Growth and the Population Reference Bureau. The latter publishes a regular newsletter, Interchange, and serves as a clearing house for school materials. A number of universities, including Cincinnati, Columbia, Delaware, Florida State, Harvard, Illinois, Indiana, the University of Michigan, North Carolina and St. Lawrence, have been involved in school and out-of-school activities within the United States and in international projects in developing countries.

There has been considerable interest in and development of sex education programmes in recent decades in Scandinavia and Eastern Europe, (3) and these programmes permeate school and out-of-school activities, but they have little direct relationship with population education as the term is used here. The focus is on interpersonal relationships, values and facts as they concern sexuality and family life.

CHANGES IN THEORY AND PRACTICE

As noted earlier, the initial demand that attention be paid to population education came from non-educators, who had their own definitions of population problems and their own ideas about which educational issues were involved. A sense of urgency often led to hasty programme development, which strained the limited human resources that were available and trained for the task. Much of the knowledge most needed for content - particularly that dealing with the family - either did not exist or else was not organized in a way that could be satisfactorily used by curriculum developers, teacher trainers and others. Funding sources - mostly population agencies which had little or no experience in educational innovation - often cherished unrealistic expectations concerning the speed of change. Research, experimentation and evaluation were sometimes bypassed in order to "get on with the task". In addition, both the public at large and many professionals in the field had narrow perceptions of the population "problem" focusing upon fertility and family planning to the exclusion of other population-related issues.

Today, however, there are increasing signs of change in both the theory and the practice of population education. There has been growing realization of the strengths and weaknesses of the various educational settings in pursuing certain types of goals and objectives. Increasingly, the goals of population education are being formulated in terms that reflect not only population imperatives but also the institutional and learning requirements of educational systems. Educators in virtually all countries are grappling with new ways of involving young people and adults in the life of their nations - and population education, being so closely identified with the individual and his community, benefits from and contributes to this process.

The expansion of the concept of population education has focused greater attention on families and communities and on their perception of problems related to population and quality of life. Recognition has been growing that a macro-level approach at national and world level is too abstract for many of the intended audiences, for some of whom even the immediate region outside their village is remote. More interest is being taken in the learner and his world, and programme content

(1) Urban Life - Population Education Institute, Baltimore City Public Schools.


(3) See, for example, Kellogg, E. et al. The World's Laws and Practices on Population and Sexuality Education. Fletcher School of Law and Diplomacy, Tufts University, 1975.
is putting more personally meaningful and more easily understood concepts in place of discussions of national rates of employment, development or growth.

This new trend has been especially evident in out-of-school programmes, but there has been growing recognition of the problem of "personalization" in school population education programmes as well. Early programmes started with population "problems" as defined by the programme organizers; now, greater attention is being given to learners' involvement in the process of problem-definition as a prelude to problem-solution.

Finally, there is an increasing awareness that a vast amount of population learning takes place outside planned educational settings; for example, much of the informal learning acquired through the family and the mass media is directly or indirectly related to population issues. Similarly, realization is growing that education and schooling are not synonymous, that the learner who does not complete primary school is not necessarily prevented from learning in different educational settings at different stages of his life cycle. The problems of planning and integrating a "learning system", whether for population education or for general educational goals, are only now being confronted.

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population dynamics and education planning.
Chapter III

Goals and objectives

INTRODUCTION

The early history of any educational development is bound to be concerned with problems of definition - and population education is no exception. For the present, we have chosen to identify the major components of a possible definition, on which there is sufficient consensus of opinion:

Population education is an educational activity which:
- is part of a total social learning process;
- is problem-centred;
- derives its content from population studies;
- is concerned primarily with the population-related interactions of individuals, families, communities, societies and nations;
- is aimed specifically at improving the present and future quality of human life.

We could also define population education through the enunciation of goals and objectives.

TOWARD A GENERALIZED STATEMENT OF GOALS

Ideological positions and national policies adopted by different societies markedly influence educational goals and objectives. They also affect the structure of educational systems and the levels of provision and access, as well as the selection of content and the methods of instruction. Within this policy framework, the emphasis placed on different population issues determines the formulation of goals and objectives in programmes of population education.

This difference of emphasis is seen for example in the following two general statements of aims. One is expressed by the African Social Studies Programme:

"The aim of population education is to assist the individual to understand the causes and consequences of population phenomena and the way in which these affect the individual and society." (1)

The other was formulated by the Academy of Pedagogical Sciences of the German Democratic Republic in a correspondence with Unesco:

"The aim of population education must be to enable individuals and groups:

To understand that demographic development is dependent on economic and social development and to consider these processes accordingly;

To recognize the causes of demographic phenomena, whether they be social, economic, political, biological, ethical or religious, and to enable the people to make changes in order to remove these obstacles to social progress;

To act in their personal life in accordance with the objective social needs of the demographic development of their country."

Consensus about the goals and objectives of population education can only be achieved by considering them in a very abstract way and by placing them in

(1) Earlier works which deal with problems of definition include:
Unesco, Bangkok, op. cit., see present volume p. 47.

highly-generalized learning situations. Thus, the goal abstractions outlined below will have to be adapted and modified to meet specific needs and contexts. The general goals of population education are:

To enable learners to acquire the knowledge, skills, attitudes and values necessary (a) to understand and (b) to evaluate the prevailing population situation, the dynamic forces which have shaped it and the effect it will have on the present and future welfare of themselves, their families, communities, societies, nations and the world; (c) to make conscious and informed decisions (based on their understanding and evaluation); and (d) to respond (either by an intention to act or by an action itself) to population situations and problems in a conscious and informed manner. (1)

The goals are progressive: each step in the problem-solving process implies and assumes that all the information, concepts, skills, attitudes and values in earlier levels have been acquired by the learner, and expresses, in condensed form, the additional learning needed for the next goal or step:

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Knowledge and understanding
   Evaluation and judgement   Decision-making   Response (action or intention)
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GOALS, LEARNERS AND SYSTEMS

This scale of general goals is important for school and out-of-school programmes of population education for it raises the question of what can properly and effectively be attempted by each of them. What can be taught, when and to whom? Any answer to these questions must inevitably take account of (at least) the following factors:
- the learners' level of maturity and intellectual development;
- the learners' social, cultural and economic environment;
- the learners' background of experience;
- the training and experience of the teachers;
- the limits of the institutional or organizational structure where the programme is located.

It is sometimes argued that, in school programmes, goals which relate to decision-making and action at some distant point in time (long after students leave school) should not be included. The school can share no responsibility for these later events it is argued since other social and psychological factors will intervene; in addition, the school has no way of effectively measuring decision-making capacity and intention to act. According to these opinions, the task of the school is to do what it can do best - provide information and understanding - and leave decision-making and subsequent action to the learners themselves.

Other educators, however, maintain that this is far too narrow an interpretation of the function of schooling, whose general task is to prepare the young for responsible adult citizenship. Although adult behaviour is not easily evaluated, the school, it is argued, can help learners develop the understanding, skills, attitudes and values necessary for informed evaluation and decision-making. This position very carefully makes a distinction between the behaviour of decision-making in an educational context and decision-making behaviour in a population-related context: the former is claimed to be the province of the school and, in part, a preparation for the latter.

There are different opinions, too, about the relationship between the sequenced structure of general goals and the degree of maturation which learners have reached. Some people argue that young learners should concentrate on the first step and acquire an understanding of the population situation and its relation to human well-being; then, as learners mature and their capacity to handle more complex and abstract interrelationships develops, greater emphasis can be placed on evaluating, deciding and responding. However, other people claim that even young learners should begin to experience the business of evaluating and decision-making whenever they acquire information and concepts; indeed, to present knowledge without giving opportunity for this experience is to deprive population education of its most essential characteristics.

There will never be complete agreement on these issues. However, considered opinion today clearly favours including evaluation and decision-making components in both school and out-of-school programmes.

Some national programmes emphasize the goals of knowledge and understanding; others place

(1) For an analysis of goals see:
Unesco Regional Office for Education in Asia, Bangkok, 1975. op. cit. see this volume p. 61.
greater emphasis upon attitudes and values. However, even when the general goals of population education stress cognition, there is usually some statement that this knowledge and understanding should lead to the formation of attitudes and values. Conversely, when goals stress the formation of attitudes and values, there is usually some statement about the knowledge and understanding on which they will be based. But, so far, few programmes have achieved a satisfactory goal balance and mixture and this may account for some of their vagueness concerning the ways in which problem-solving skills are to be developed.

Value-free and value-fair approaches

It is almost impossible to build value-free teaching/learning situations - and this is true for programmes of population education. It is conceivable, however, to structure value-fair teaching/learning situations.

The basic assumption of a value-fair situation is that there are no population-related decisions or actions which are by nature "right" or "wrong". In this situation, it is the task of the educator to provide content (both factual information and information relating to different value positions) which will enable learners to evaluate the range of options for a given issue. This does not mean that the teaching/learning situation, or the educational process or programme, will be bias-free but rather that the biases and related attitudes and values will be identified and open to evaluation.

The educator's obligation is to present content in a value-fair manner, to make clear the reasons for his own opinions and encourage other positions to be developed and defended; it is the learners' responsibility to ascertain their own positions, make their decisions and determine their actions. As long as their judgments are arrived at by a process of conscious and informed evaluation and decision-making which takes into account personal and social consequences, their attitudes, decisions and actions will in no way be pre-ordained.

The right of governments and educational systems to formulate and direct educational effort in any field is not in question here. However, two major problems are raised by the kind of general goals or specific objectives which stipulate that particular values, decisions or actions should be attained. First, the population dynamic, by its very nature, is susceptible to change. Accordingly, in the long run, what is an appropriate decision at one moment may not be appropriate at another. Change calls for a problem-solving ability to deal with alternative futures. Secondly, it is questionable whether an attempt to pre-determine particular behavioural responses to population issues can be really effective. Unless the "officially-determined" position leads to a significant improvement in the quality of life, the whole population education effort may have to be re-thought.

FROM GENERAL GOALS TO SPECIFIC OBJECTIVES

National population concerns as well as local limitations may also affect the translation of general goals into specific objectives. The influence of population policy and public beliefs, attitudes and values on population-related matters is evident in the objectives of some population education programmes.

A number of specific objectives fixed by multi-ethnic nations (derived from a general goal statement like "to provide learners with a knowledge and understanding of the prevailing population situation") openly claim that "the small family norm is a desire of all population groups" or that the census data shows that growth rates "are identical for all population groups". Or, under the umbrella of the general goal "to provide the learner with a knowledge of present population trends", it is common to find as an aim, "to acquaint the learner with a knowledge of national population policy", or more specifically, "to explain to learners the reasons for governmental efforts to manage population growth rates".

In settings where there is no clearly formulated national population policy, the translation of general goals into specific objectives often seems to have been affected by institutional limitations. For example, there are instances where the question of what can or might be most effectively taught in schools becomes a limiting factor in formulating specific objectives. This is shown by objectives which seek merely to "provide information" or to "create awareness". In other cases, statements of specific objectives derived from general goals illustrate socio-cultural sensitivity by omitting what might seem to be logical areas of knowledge development.

Difficulties in framing specific objectives

A number of difficulties seem to arise in the movement from general goals to specific objectives. Frequently, although the formation of values and attitudes is mentioned as a goal, specific objectives deal only with the provision of information and the promotion of understanding. A second and related difficulty is a general failure to express objectives in terms of performance. Few

(1) See, for example: Hendry, J.A., Curriculum Building Strategies, Unesco - University of West Indies (U.W.I.), Project RLA/71/142, Mona, Jamaica, 1974.

(2) In this report, general and abstract statements of purpose, intent or aim are termed goals. Statements which specify the knowledge, skills, attitudes and values necessary to achieve these goals are termed objectives. See, for example: Smith, B. et al. Fundamentals of Curriculum Development, Harcourt Brace, New York, 1957.
programmes state clearly what learners are actually expected to do or achieve in order to acquire the desired skills, understanding, attitudes or values. Objectives of knowledge, for example, are often couched in semi-abstract terms or semi-generalizations such as "to help the learners understand how rapid urbanization affects their lives". This objective does not appear to be a very useful guide in selecting content or in organizing materials. Statements like these are difficult to translate into the operational stage and equally difficult to evaluate. Skill objectives (which derive from general goals such as "to provide learners with the ... skills ... necessary to evaluate the impact of population change") rarely identify specific skills like the capacity to define problems, to collect data, to organize material, to interpret information, to analyse contending arguments. Even more rarely do they specify the level of skill to be achieved.

A third difficulty arises with values and attitudes. Some programmes frame general goals of values and attitudes but do not formulate objectives saying clearly which attitudes and values should be adopted or, if a change is desired, the direction of the change. Other programmes clearly spell out specific objectives of values and attitudes, for example, "to teach learners the assets of transmigration" or "to have children understand the assets of a small family". The first type of statement creates uncertainty about how to select material and how, in fact, to achieve the general goal; the second is less uncertain but is open to criticism on the grounds of bias or indoctrination.

Two further points warrant discussion. The first concerns the nature of goals of decision-making and response; the second has to do with time frames implied by these goals. The population educator who adopts a value-fair position must be committed to goals and objectives which enable learners to move from understanding through evaluation to decision and action (or intention to act). His task is to broaden learners' perception of population issues in ways that will enable them to examine the ramifications and repercussions of the issues. Informed decision-making is possible only when information concerning a range of alternatives has been collected, analysed, weighed and judged.

In classroom settings, the response phenomenon may simply be an indication of an intention to act, based upon a decision that has been taken. In out-of-school contexts, the response to decision-making may include more overt behaviour. This difference is largely a result of time frame differences. Schoolchildren are more remote from many population-related decisions and events than are out-of-school learners, in most circumstances. In school programmes, the goals of decision-making and responding involve practice in a somewhat artificial context as a preparation for future and real-life decision-making and responding. In this sense, population education is a preparation for the future and thus incorporates goals and objectives with a future orientation. However, wherever young people, either in or out-of-school, are already taking population-related decisions, objectives need to be more oriented toward behaviour and action.

A CONTENT VIEW OF GOALS

In the previous section, we examined the goals of population education as a problem-solving process; in the present section, we shall look at goals in terms of the problems to be investigated, from the point of view of content, while taking into consideration the process of understanding — evaluating → decision-making → responding.

Life-cycle events and population processes

Human beings, at various moments in their life cycles, make decisions which influence the processes of fertility, migration and mortality (or life expectancy). In most but not all societies, the basic life-cycle choices which represent "decision-making" areas are:

- if and when to marry
- if and when to have a first child
- if and when to have subsequent children (spacing)
- what the completed family size shall be
- where to live
- in some contexts, how to extend or decrease life expectancy and where to die. (1)

This list is an over-simplification in two senses. First of all, in some societies, life-cycle events are neither so easily separated nor placed so neatly in sequence as the list might imply. For example, there appears to be a growing trend in some societies for the birth (or conception) of the first child to precede the marriage event. Secondly, many of these life-cycle events are in reality (as will later be shown) influenced by other decisions and events which have less direct but nevertheless known repercussions upon population processes. These other events include, for instance, decisions about school-leaving, employment and place of residence which will clearly affect the marriage choice. In the same way, decisions about agriculture and whether crops will be grown for cash or consumption have an effect upon family

(1) Some explanation is needed for this last life-cycle event. Most individuals make decisions which have a bearing upon life expectancy, even if they are not aware of the implications of these decisions as regards chances of survival. Some data strongly suggest for example, that, in many societies, life expectancy is related to the individual's marriage status, occupation, level of education and income, place of residence and health habits.
nutrition and health and, consequently, upon both fertility and life expectancy.

Interrelationships and interactions

Decisions made by individuals and families affect both the local population dynamic (increasing family size by births or decreasing family size as its members migrate) and also, to some extent, the quality of life of the family and the larger group of kinsfolk. For example, the migration of family members to the city may yield cash flow back to the family, enabling it to spend more on consumer goods and so improve its material well-being; at the same time, however, migration often removes male family heads and places a larger workload and greater stress on the women who remain in the rural areas.

At community level, for example, decisions taken by rural communes in the People's Republic of China to delay marriage have been one factor in slowing the rate of population growth. This in turn has often helped the communes to stop using limited resources for the expansion of services and direct them to improving the quality of those services, with consequent betterment of human well-being.

Decisions taken by members of a society thus accumulate and affect population processes at a national level - with consequent and often considerable impact upon national well-being, socio-economic development and progress. To take just one example: decisions made about family size have repercussions upon the rate of the population's growth and upon its age structure, composition and distribution. When demographic growth is high, nations face the problem of having to expand essential services, like health education and welfare, at a rapid rate.

These effects are rather complex and multi-sided. The social, economic, political and administrative processes shaped at a national level considerably modify the options which individuals and groups possess when making population-related decisions. These modifications can be both direct and indirect. For example, the presence or absence of adequate health services, social services and educational facilities directly affects individual and community options and decisions. The uneducated community may be unaware that there are alternatives to high fertility.

Indirectly, too, there are a host of political, social and economic factors which influence population-related decisions. They vary from nation to nation and, within nations, between different regions or ethnic groups. Most of these factors involve implications of social justice. For example, in nations or regions where tenant farming is prevalent and where cheap credit is unavailable, farmers may decide to have large families as a source of labour and additional income. Again, the inadequate distribution of upper-level educational facilities in rural areas may force young people to migrate in order to complete their schooling. Elsewhere, the lack of employment opportunities in small rural towns may cause large-scale migration to the cities where jobs are often assumed to be plentiful. In many industrialized societies, the high cost of housing or the unavailability of loan funds is a potent factor affecting decisions about marriage and family size.

As we saw earlier, a final layer of complexity is added to decision-making by social customs, traditions and religious beliefs. These factors may both extend and limit the range of options in decision-making. In some societies, for example, decision-making about population-related matters is not regarded as the province of the young. In others, the taking of decisions about marriage, for instance, is not considered the province of the individuals most involved. It should be noted however, that change and development are in some societies beginning to break down many of these barriers. Increasing education for women and girls, the liberalization of marriage laws and the emergence of nuclear family structures are all trends which appear to foster independent thought and action.

POPULATION EDUCATION: INNOVATION AND RENOVATION

An important goal often suggested for population education concerns the contribution it might make to educational renovation and innovation by introducing new content and new methodologies.

So far, the introduction of population education in school and out-of-school programmes has, in the main, simply meant adding or integrating new content. In a very limited sense, these additions may be thought of as innovatory so far as any extra content implies at least some re-organization of a learning system. (1). But population education programmes have generally used the methods and approaches of the educational systems of which they were a part.

Today, many educators argue that goals of population education require teaching/learning methods which will be innovatory or renovatory in most educational systems. In traditional or formal settings and where the teaching/learning process tends to be teacher-rather than learner-oriented, the focus of population education upon learner evaluation, decision-making and response will represent a significant shift in emphasis. Here, the methods implied by these goals can rightly be viewed as 'proposals for change'. In systems

already using less formal and learner-centred approaches, population education is bound to reinforce the trends towards innovation or renovation.

In the case of educational or learning systems which are not being significantly changed, it is unlikely of course that introducing a population education programme would in itself greatly modify the system. However, in educational settings undergoing change in organization and content, population education can contribute to these changes - particularly where innovation or renovation is directed toward interdisciplinary organization or integration of content, increased relevance, increased learner participation and the acquisition of skills which will be useful later in life.

**POPULATION EDUCATION: INTEGRATION**

Some scholars consider that population education programmes - and particularly school programmes - are an integral part of other "educations", such as development education or environmental education. They argue that the goals and objectives of population education should reflect these "broader frameworks" and might be appropriately and meaningfully integrated into them.

Before passing on to the question of integration, it seems necessary to indicate briefly the goals of both population education and other educational programmes which are in some way related to population education. (1)

**Population Education**

To enable learners to acquire the knowledge, skills, attitudes and values necessary to make informed decisions about population events and issues which affect the present and future quality of life for themselves, their families, communities, societies and nations.

**Development Education** (2)

To develop in learners an understanding of issues concerning "human rights, dignity, self-reliance and social justice in both developed and developing countries".

To promote understanding of "the causes of underdevelopment and the establishment of a new international economic order".

**Environmental Education** (3)

To develop in learners an awareness of or concern about the environment and its associated problems, and to give them the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones.

**Sex Education** (4)

To develop in learners an understanding of their sexual nature and needs, of changing sex roles and of the place of sex in the individual's personal and family life.

To help the individual make responsible decisions in regard to sexual behaviour.

**Family Life Education** (5)

To develop the ability of family members to play their roles effectively.

To enhance communication between family members and to improve the quality of family life.

In this report, population education is viewed as an educational programme in its own right but not necessarily as a "subject" or "discipline". Its distinctive quality stems from goals which emphasize a problem-solving process, in matters which are population-related, and from its emphasis upon the interactions and interrelationships between population processes and the well-being of individuals, families, communities and nations. These goals have not traditionally been the prime concern of, for example, programmes of environmental or development education. But it is true that population education, as currently conceived, incorporates a content which may also be regarded as part of development education, environmental education or family life/sex education. Indeed, programmes which might be regarded, though they are not so named, as population education in some countries of the developing world begin with an analysis of development goals, including concepts of human rights, of distributive justice, the production distribution and supply of goods and other aspirations for improved quality of life - as an ideological framework in which to examine population trends and their impact upon individuals and the society.

(1) For a more complete discussion of these frameworks, see Chapter Four.
In somewhat different ways, development education and environmental education make use of content drawn from population studies, particularly that which describes and analyses how population processes operate, in order to understand better the nature of social and economic development or the interaction of man and the biosphere.

Programmes of sex education and family-life education also share certain concerns with population education, such as human reproduction and life-cycle decision-making, but they concentrate on interpersonal relations and in general have not concerned themselves so far with the consequences of population decision-making on the community and the society. In addition, they pay little or no attention to migration, an important aspect of population education.

All of these educational programmes - population, environment, development, sex and family life - have a validity of their own. In a totally-renovated learning system, a viable integration of the goals and objectives of all these programmes might well be both desirable and attainable. But population education will be integrated with and incorporated into other educational programmes only if the general goals and specific objectives of population education are given a significant place in the integrated programmes.

SOME GUIDELINES FOR GOAL FORMULATION

The following guidelines have been constructed to help planners of population education programmes formulate general goals and specific objectives.

General goals should:
- State the broad aims of the programme;
- Identify the general population issues at which the programme is aimed (or identify how the programme is related to other national or sub-national programmes of social and economic development);
- Outline the components or sub-goals of the programme regarding:
  the audience to be reached
  the content to be learned or taught
  the teaching/learning methods to be used
  the resources (human, economic, physical, material) required
  the methods of evaluation to be used;
- Indicate the level of population-related knowledge it is hoped to attain;
- Indicate the types of problem-solving skills, attitudes and values which are to be fostered.

Specific objectives should:
- Be derived from general goals or sub-goals;
- Specify the steps in programme development - as tasks to be undertaken, groups to be reached, targets to be attained;
- Identify the constraints in the way of programme development and how they are to be overcome;
- Relate each programme component to the resources which have to be developed and the methodologies or strategies which have to be employed; in many programmes, this may involve a cost-benefit analysis;
- Specify the beginning and end of each learning step in terms of learners' performance.
- Specify the understanding to be acquired, the skills to be developed, the attitudes and values to be encouraged and the methods that will be used for each step.
Chapter Three: Goals and objectives


INTRODUCTION

The expression "population studies" covers the body of knowledge, concepts and theories which describes and attempts to explain the dynamics of human populations and their relationships with the social, cultural, economic, political and biological environments. So far, population studies as a subject have not been integrated as have the established disciplines, such as economics, mathematics or biology. It is not even certain that they need to become a new academic subject. This chapter outlines the contributions which various bodies of knowledge and professional fields have made to population studies and thereby to the content of population education. It also discusses the problems which arise when selecting, from population studies, the specific body of knowledge needed for population education.

Population studies is an educational term which reflects a combination of content from various disciplines. Educational subjects are often formed in this way. In the past, content from history, geography and civics has been selected and combined to form social studies, while the content for mathematical studies has come from arithmetic, trigonometry and calculus.

THE RANGE OF POPULATION STUDIES

The academic disciplines and population studies

A focus on population issues, no matter how they are defined, means that the dynamic demographic processes of fertility, mortality and migration will have to be considered. Attention will have to be paid, too, to the components of these processes: for example, population age and sex composition; its spatial distribution; its marital, educational and employment characteristics and the way these characteristics change over the years. These considerations are at the heart of the discipline of demography.

Another area of knowledge, basic to population studies, is folk demography - as defined in Chapter One - which is of considerable importance in formulating the goals, content and structures of population education programmes. The term "folk" simply means "people". Urban dwellers in the most industrialized countries of the world and villagers in the least developed countries all have folk demographies, which are reflected in their actions.

These learnings are either latent or overt, according to the particular culture, and they are matters of concern to the sociologist, the anthropologist, the psychologist and the psychiatrist. The sociologist is also interested in the relationship between population phenomena and social characteristics and he investigates, for example, the ways in which differences in age structure are associated with different characteristics of social institutions, or the relationship between different birth rates, social classes and the mobility of the population.

Anthropologists, with their interest in cultural patterns of relationships between individual, kin and community, in cultural norms and behaviours as well as in institutions and the customs which sustain them, have a key role in population studies. Their investigations can shed light upon prevailing folk demographies and can increase our understanding of the ways in which culture both promotes and hampers population-related decision-making.

The economist is concerned, among other things, with the interrelationship between economic development and population variables, using age structure data to examine labour force characteristics. Economists are paying serious attention to

the micro-level, that is the family as the unit of economic analysis. Family economics include the study of the allocation of resources, the contributions which various members of the unit make to the family economy and the costs and benefits of children.

**Psychology and social psychology** have been concerned with the value of children from a different standpoint. Studies now being undertaken in various regions of the world are centered on the non-economic (the social, emotional and psychological) costs and benefits of children. This focus on individual perceptions within different micro-economic and social contexts is an important aspect of population studies for it helps to explain the sources of fertility behaviour as well as its potential consequences. (1) Psychology also contributes to an understanding of the relationship between population decisions and various aspects of the physiological and emotional development of family members, particularly the mother and children. For example, a review was made of the available information concerning the actual and expected consequences of family size, (2) and studies were done on measuring intelligence as it is affected by family size and by the order of birth. (3)

**Political scientists** take account of population characteristics in their analyses of political systems and political behaviour within and between countries. They also examine how power shifts take place within or between nations as a result of population change - a kind of study which scholars are making, too, in the newly-developing field of policy and administrative sciences. The political consequences of the use of disincentives (tax penalties or withdrawal of government support in housing and education for large families) is increasingly an area of investigation, as governments, such as those of Singapore and India, begin to consider and implement such policies.

Systematic attention to the ethical, moral and religious aspects of population events throughout the human life cycle, as well as to the implications of various population policies, has a legitimate place in population studies. Examples could include an understanding of the position of the Catholic Church on a range of population issues (4) as well as work done by Islamic scholars on fertility. (5) The report on "Ethics, Population and the American Tradition" prepared for the United States Commission on Population Growth and the American Future provides a further example. This work includes reviews of changes in American social values, the legal tradition as it affects values and population and the positions and interests of a wide range of ethnic, social, economic and religious groups in relation to various aspects of population policy. (6)

**Historians** provide knowledge of past population trends on the basis of which one may forecast future trends. An understanding of why population changes occurred at a particular moment and in a given socio-economic context contributes to understanding present changes and to planning for the future.

**Geographers** make an important contribution to population studies by their interest in an analysis of population distribution (density) and its interrelationships with the physical and cultural environment. Urban geographers, in particular, have increased our knowledge of the rural-to-urban migration process and its impact upon the character of urban habitations.

**Natural scientists** are concerned with the inter-relationship between human beings and the environment. The species "homo sapiens" is part of a much larger web of life. Population growth and distribution and man's capacity to modify and change his environment often threaten to destroy the delicate balance of eco-systems - often to their own disadvantage. Both natural and physical scientists are expressing increasing concern not only for the well-being of specific eco-systems but for the future of the whole biosphere. Some forms of waste disposal and pollution, for example, are problems which transcend national boundaries.

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The medical sciences offer necessary scientific knowledge on human reproduction, pregnancy, the risks associated with the age and health of the mother, her previous history of births and the spacing of her children.

A variety of other professional fields also contribute to population studies. Social and economic planners evaluate the distribution of services in relation to population and the rising demand for education, health and family planning facilities, housing and essential services. There is also information from the professional fields of home economics, social work, urban and regional planning, rural and community development and transportation.

The data base and population studies

Besides the information available from these fields, other sources of population data generally include national and sub-national censuses, reports on vital statistics (like births, deaths, marriages and morbidity), migration records, periodic surveys with population implications, such as housing, and other publicly-collected documents.

In addition to nationally-published data, the United Nations and its specialized agencies assemble and publish regularly a wide range of population-related information - which, it should be noted, is generally derived from national sources. It provides a useful basis for comparison since efforts are made to standardize what is being reported. The biennial publication *World Social Situation* is a valuable volume providing background for population studies. Publications of the United Nations and its specialized agencies which are useful sources of data for population studies are listed in Appendix B.

A number of regional groups of countries in the United Nations also collect and disseminate data. The Economic Commissions - Economic and Social Commission for Asia and the Pacific (ESCAP), Economic Commission for Western Asia (ECWA), Economic Commission for Africa (ECA) and Economic Commission for Latin America (ECLA) - each has a series of publications with a regional emphasis which are valuable sources of information (see also Appendix B).

Professional fields and population studies

The choice of a framework for population studies is generally derived from national sources. It provides a useful basis for comparison since efforts are made to standardize what is being reported. The biennial publication *World Social Situation* is a valuable volume providing background for population studies. Publications of the United Nations and its specialized agencies which are useful sources of data for population studies are listed in Appendix B.

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FORMULATING POPULATION STUDIES FOR POPULATION EDUCATION

A conceptual framework is needed to determine, from population studies, what shall be included or excluded when formulating population education content. The type of framework chosen will depend upon a variety of factors, used as filters in selecting the information, concepts and theories considered educationally relevant.

The entire process of moving from population studies, as a general body of knowledge, to the actual content of population education in school or out-of-school settings is shown in Figure 3. Stage A has been considered previously in this chapter, and stages D, E and F are examined in subsequent chapters. The present section deals with Stages B and C. It describes a number of "filters" which influence the orientations and the approaches used in selecting knowledge from population studies - from which curriculum developers will be able to draw the content of specific programmes of population education.

Of course, the diagram is over-simplified and fails to indicate that later stages are likely to raise questions which will result in the reassessment of earlier stages. For example, in the process of developing specific instructional materials at Stage F, the need for additional concepts and data may arise, requiring additions to the selected body of knowledge at Stage C.

Filtersons

Different socio-economic conditions may mean that certain findings cannot be applied everywhere and different ideological positions may make certain research unacceptable. There is no universal way to structure population studies for population education, nor any single body of knowledge and concepts that is equally relevant for all political, social, cultural, economic and demographic situations.

The choice of a framework for population studies will result from the interplay of four factors, which serve as filters in selecting relevant knowledge and also as a basis for integrating and structuring that knowledge.

1. The policy and perception filters. The primary population-related preoccupations of a country will influence the selection of information and often provide an organizing framework for that information. If the problem is rapid urbanization resulting from large-scale rural-to-urban migration, as is the case in many African countries, this selection may be influenced more by that problem than by issues of rapid population growth, as in some Asian countries. Similarly, a country with a major governmental migration policy, such as Indonesia, may give special attention to aspects of population studies that are pertinent to that policy. And a country with a declining rate of growth - whether as a desired aim, as in the United States, or viewed with some concern, as in Romania - may pay greater attention to understanding the advantages and disadvantages of that situation.

Footnote (2).
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In the same way, the relative weight given to population factors in a country’s socio-economic development will greatly affect the framework chosen. As was already pointed out in Chapter One, political, ideological and cultural filters will all play a rôle. For example, in some Latin American nations, the causes of population phenomena are frequently perceived as politically- or class-generated. Solutions to “population problems” are not therefore generally sought by trying to alter the population dynamic in those countries, but rather by using the processes of political and social change. This type of perception considerably influences the ways in which population studies will be developed.

It may perhaps be useful to emphasize here that, although policies and perceptions of population issues are important in principle as a filter in selecting information, they should not be allowed to limit the range of information that will be included in population studies. On the assumption that one goal of population education is to increase awareness of population issues, it is to be hoped that dimensions of information beyond a country’s immediate preoccupations will be included, thus widening the horizons of public awareness and debate.

2. The institutional filter. The roles and functions of different sectors of the educational system (like primary school and adult education) determine the selection and organization of knowledge. Where universal primary education is provided, the school may become the main vehicle for a programme of population education. Where only a minority of potential learners is reached, other educational settings may be used.

In the People’s Republic of China, for example, population education is part of the “political studies” curriculum of secondary schools and this is where national policy concerning population is examined. But the major programme emphasis is out of school because this is where most population-related decisions are made, where content is considered most meaningful and where people can “educate” one another in a real-life social context.

3. The approach filter. If population education is perceived as a new discipline, as it may be at the university level, then the framework for selecting and organizing population studies for population education will tend to be built along disciplinary lines. If, however, it is seen as a means of examining the complex of social problems, then the framework will tend to be interdisciplinary. These two approaches call for a different selection of content and a different mode of organization.

4. The knowledge filter. The country-specific nature of population education creates a number of difficulties. First, it means that there is heavy reliance on national and local sources of data. Even in those societies which have the longest history of research and data-gathering in population-related matters, serious gaps exist in available knowledge. In societies with a shorter history of data collection, or in settings where scholars have studied only a limited range of topics related to population, the problem is much worse. In these cases especially, the accuracy, validity and coverage of the available data are often questionable. A second problem concerns the degree to which knowledge about a particular situation in one country can be generalized to cover a seemingly similar situation in another. Where no research has been done, findings from another setting may be used - but extrapolation requires extreme caution, due to likely differences between the two situations.

Another aspect of this filter concerns the accessibility of knowledge. Frequently, the available data exists in a foreign language which is unfamiliar to many scholars in a country. Furthermore, there may not be enough trained specialists who have the time to take abstract and highly sophisticated concepts, place them in their intended contexts and then simplify them for the non-specialists who will have to use them - all without grossly distorting the original meaning of the material. This is not an easy task.

Finally, the state of present knowledge represents in itself a filter and care must be taken not to draw too firm conclusions from a foundation which is still being built.

APPROACHES TO POPULATION STUDIES FOR POPULATION EDUCATION: SOURCEBOOKS

So far, several methods have been used to select appropriate concepts and data from population studies. To provide formulations at this intermediate stage, educators, faced with the immediate problem of curriculum development, simply assembled the reference materials which were available and which seemed to have some relevance for population education. Experts and educators who could identify or develop appropriate materials and syntheses were often called in, for example at working seminars which were held to help develop a systematic conceptualization of the knowledge required for curriculum development.

One of the first projects of this nature was sponsored by the Unesco Regional Office for Education in Asia, beginning in 1972, and resulted in the publication of Population Education in Asia: A Sourcebook(1) in 1975. This publication was designed to present one formulation of selected aspects of population studies for use in national programme development by curriculum developers and teacher educators. It was published in five

(1) Unesco, Bangkok, op. cit. See this report, page 55.
been prepared direct attention primarily to the problems. Written largely by African scholars the work of compiling the volume presents special needs of educators in Africa, Asia and Latin America.

The Asian sourcebook was designed as a basis for national sourcebooks which, it was hoped, would be developed subsequently. Such volumes have been completed or are being compiled in India, Indonesia, Korea, Malaysia, Pakistan, the Philippines, Sri Lanka and Thailand. Each reflects different conceptualizations both of population needs and of the focus of population education.

Africa South of the Sahara faces a different situation. The African Social Studies Programme, covering fourteen sub-Saharan countries, most of which do not have population policies, is also compiling a sourcebook of population studies for population education. Since the data available on African population dynamics and the research done at both national and regional levels are very limited, the work of compiling the volume presents special problems. Written largely by African scholars from East and West Africa, the papers that have been prepared direct attention primarily to the causes and consequences of population phenomena in an African context. The content outline is given in Figure 4.

The books described above are broadly conceived and directed at curriculum developers and teacher educators in a range of school subjects, generally grouped around social studies. A different approach can be seen in the series of the Unesco-sponsored Teacher's Study Guide on the Biology of Human Populations(2) in which a common basic content has been regionalized to cater better for the needs of educators in Africa, Asia and Latin America. These guides have been designed to encourage more in-depth attention to population issues within a single subject of study rather than the development of broad-scale population education programmes. They, too, are seen as preludes to volumes which will be given national or sub-national orientations.

All of these sourcebooks, whatever their formal titles, were designed to conceptualize population studies for programmes of population education in the schools. It is important to emphasize, however, that their value and the uses to which they may be put transcend the needs of school programmes. In many circumstances, the content of out-of-school programmes is derived more from an assessment of learners' needs than is the case with school education but it is also essential that scientifically valid information be available. This issue will be discussed more fully in Chapter Eight.

POPULATION STUDIES FOR POPULATION EDUCATION: ALTERNATIVE FRAMEWORKS

In the preceding section activities were described which have already been completed or are at present being developed. They are not offered as models of what to do but simply as examples of what has been done. Several other frameworks of population studies for population education can be envisaged. These frameworks overlap considerably. They represent the broad range of ideas that will be needed. In practice, population education programmes will probably, to some extent, draw on all or nearly all the frameworks.

A population and family welfare framework

In this framework, primary focus is on the micro-level. It is assumed that, if proper attention is paid to the individual and the family, problems at the community and national levels will take care of themselves. Population learning, like any learning, should ideally begin close to the individual's own experience before progressing to matters beyond his experience.

Population studies in this framework will focus on the family and the life cycle events as they affect and are affected by broader population processes. Family functions, and the interrelationships between its members, human sexuality, sex roles and expectations, related issues of education and employment, are pertinent questions. Preparation for child care, family budgeting and aspects of home science might be included too. This framework could also encompass the economic, socio-cultural and psychological assessment of "the value of children", not only at the family level but also at the community level. Social and community norms, as they affect behaviour, would be appropriate content to enable learners to develop a

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1. Ibid. Section I: Overview of the sourcebook; Section 2: Orientation to population education; Section 3: Population growth and distribution in the Asian region; Section 4: Population - quality of life themes; Section 5: Reference Tables and Charts.

greater understanding of the variety of pressures that influence behaviour concerning marriage, birth and choice of residence.

This family-welfare framework parallels, in many of its aspects, what is often called "family-life education". The primary difference between family-life education and population education is that the content of the former deals primarily with intra-family relationships and the family's social and economic interactions, while population education content deals with the interrelationships between individual, family, community and nation and with the ways that population phenomena impinge upon the welfare of all these units of society.

A number of professional associations are developing source materials with a focus on family welfare, primarily with the aim of training professionals in their areas. For instance, the International Association of Schools of Social Work is working with member schools in all regions of the world to increase the awareness of social workers to population issues. Instead of a sourcebook of the sort already described, it has published a book of analytical abstracts of literature on population and family planning for people engaged in social work and related disciplines. Another example is provided by the International Family Planning Project of the American Home Economics Association which is developing source materials so that population and family planning content may be included in the home sciences, both in the United States and in developing countries.

**A population and socio-economic development framework**

At the other extreme is the focus on the macro-level. This approach assumes that the educational system can and must assist in the definition and attainment of national developmental goals. Latin American scholars especially have considered that this approach is particularly significant in their region.

In this framework, the development of population education is aligned with the concept of development education, which itself is in the early stages of conceptualization. The term development education appears to cover three interrelated and yet distinct bodies of content: the problems of development; the processes of development, and the ways learners can be made more responsive to issues of human dignity and rights, self-reliance, equity and social justice. Although there is lack of consensus about the concept of development and the ways it affects and is affected by the population dynamic, most people agree that development is concerned with the upgrading of human potential, with social justice, national independence, self-determination and a more balanced redistribution of the world's wealth and resources. Attention is now being directed to greater regional and international co-operation within the framework of the new international economic order.

Conscious efforts to organize population studies for population education around this development framework have not yet been undertaken. There is, however, a growing literature on the relations between population change and problems of socio-economic development and planning which, although directed at different audiences - usually

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As an illustration of an interdisciplinary conceptual framework, submitted for discussion in the recent regional Seminar of experts in the Arab countries, the following scheme is presented on the population-education-development issues within the wider perspective of interactions with Polity, Culture and Economy (\ldots).

The above scheme shows that in the dynamics of the development process, in which man (population) is not only its instrument (through education) and beneficiary but also its justification and its end, a number of economic, cultural and political forces are at work.

For example, polity, which is centered on the institution of authority (in the form of national and local leadership, managerial responsibility, etc.) utilizes the medium of power to mobilize capacities for collective action.

The major factor influencing polity is the personality and identity of individuals within the social system using the roles of individuals in society (e.g. employer, consumer, citizen, parents, etc.) as a medium. (\ldots)

Another important factor is culture, centered on the institutionalization of value-patterns and rules, which gives the social system cohesion and defines the expectations of its members. Through the medium of commitments, value pattern are translated into action. The complex of beliefs and ideas guiding the social system, influences culture through the medium of moral force or suasion which, depending on the type of society, can be acceptance/fait or logic/reason. (\ldots)

The third factor which is also more relevant to the subject matter of this paper is the economy. Economy, centered on the institution of contract (i.e. rules for the transfer of production factors and output of goods and services) utilizes the medium of money to mobilize resource and allocate them to goods and services (including education).

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A population and quality-of-life framework

With this approach, attention is paid to many of the same issues emphasized in the socio-economic development framework with the difference that the quality-of-life approach directs attention to the consequences of population developments on various aspects of life. It is partly based upon the pedagogical assumption that learning is more effective when learners can clearly see the possible repercussions of particular actions, especially on their own quality of life. This approach, in the mid-seventies, characterizes much of the programme activity in schools in Asia and in out-of-school programmes at a community level in all areas.

A population, sexuality and responsible parenthood framework

There is probably no area in the literature of population education that has aroused more controversy and generated more heat and less light than that of the relationship between population education, on the one hand, and sexuality and responsible parenthood education, on the other. Human reproduction and sexuality and individual fertility are a relevant and important content in any consideration of population issues. However, they are in no way sufficient to constitute a programme which aims to facilitate decision-making regarding population behaviour, which takes into account not only individual but also social consequences of action.

Cultural and political factors in a society, as well as the traditions by which sexual information is transmitted from generation to generation, determine the extent to which this type of content can be included in school programmes. There is increasing agreement that some organized form of sex education is important, in both developing and industrialized nations, as the changing customs disrupt time-honoured traditions. (1) This agreement centres in particular on the sexual conduct of teenagers and young adults. It stems from concern for out-of-wedlock pregnancies that often force the girls involved to interrupt or leave school. Other serious worries are the illegal induced abortions and the spread of venereal disease, both of which often raise grave medical problems. It is also generally agreed that programmes of sex education seek to encourage more equal opportunities for personal fulfilment, responsibility, love and respect for both sexes. (2)

The content of sex education and responsible parenthood programmes is focused primarily on the needs of the individuals concerned. The broader social connotations of human sexuality have not been specially emphasized, if included at all, in the content. The basic difference between population education and sex education is the degree of emphasis which each gives to individual or social considerations and the fact that population education goes much more deeply into the interrelationship between social units.

A population and eco-system environment framework

In this formulation, which is most common in the biological sciences, population developments are significant primarily in terms of man's relationship to past and present environments. Content ranges from the immediate impact of population developments on the use of resources, contamination of the environment and threats to biological support systems for man and animals to questions concerning the very survival of human populations. Attention is often concentrated on the global level - thereby, for example, minimizing the importance of migration as a population phenomenon.

Population concepts appear to play a comparatively minor role in the content of some programmes of environmental education, as a review of the papers prepared for Unesco's International Workshop on Environmental Education (Belgrade, Yugoslavia, 1974, see below) indicates. It may be that the population education and sex education is the degree of emphasis which each gives to individual or social considerations and the fact that population education goes much more deeply into the interrelationship between social units.


A population and alternative futures framework

In some industrialized countries and particularly the United States, attention is being paid to yet another new educational programme: futures education. The point of these efforts is to make the future a subject for serious study in order to highlight for learners the fact that their actions today will have implications for themselves and future generations. The methodological problems in this approach are acute. Tackling the future means making clear at the outset the value assumptions on which any projection must be based, as well as how the pertinent variables are to be identified and weighed. This activity is not only quantitative, in the long tradition of population projections, but also highly qualitative. It deals with alternative forms of social, economic and political organization and their likely consequences on the course of human events. Serious methodological and substantive research is being undertaken by urban and regional planners, systems analysts and policy scientists, among others, using a wide range of increasingly sophisticated techniques.

The issues of alternative futures have special significance for population education. The momentum of population growth means that individuals and societies are making population-policy and life-cycle decisions today that will have consequences long into the future. (4)

A population-values human rights framework

Earlier in this chapter we discussed the ways different conceptual filters reflect different value positions. In all the frameworks already described, both the type of approach and the selection of content will inevitably be influenced by individual or society value systems. Overtly or covertly, some of these values will find their way into the curriculum (sometimes as a hidden curriculum) with consequent impact - large or small - upon learners.

Programmes of education have recently been devised to examine and clarify value systems: these programmes of "values education" generally possess a sociological, socio-psychological basis and a content which seeks to analyse existing value systems in societies in order to present alternatives for learners to examine. Values chosen for analysis typically range across a broad spectrum - religious, political, social, cultural, ethical, moral and legal. At one level, the content might include the ethical values associated with world resource utilization and consumption and, at another, the moral or religious values linked with pre-marital sexual behaviour. It should be noted that the overall aim of "values education" is not to teach specific values but rather to teach about values and value systems.

(1) The state-of-the-art trend papers - together with the tentative guidelines and recommendations served as the Working Documents for regional seminars throughout the world. Reviewed, tested and refined they will, in turn, become the major background documents for the Intergovernmental Conference in October 1977 (see CONNECT, op. cit. page 88 of this Report).


"II.A.3 Human technology and social institutions alter limiting factors: ... (b) Human settlement and development of resources can destroy habitats of other species;

(c) Human population can greatly expand and retain its numbers.


This framework has theoretical implications for population education. The folk demography of a society inevitably reflects its value systems concerning population-related matters. The process of informed and conscious population-related decision-making is, in many ways, a value judgment process. A values education could thus incorporate large and significant aspects of population education, which in turn, might also with benefit adopt a values-clarification focus or frame of reference.

As a sub-framework - or as an organizing concept for a values approach to population education - there is the focus on human rights which has so far received surprisingly little attention. Yet the World Population Plan of Action adopted at Bucharest accorded high priority to:

"The collection, analysis and dissemination of information concerning human rights in relation of population matters, and the preparation of studies designed to clarify, systematize and more effectively implement those human rights." (1)

The various United Nations Proclamations and Declarations over the past thirty years have promulgated a series of human rights which have a direct and indirect bearing upon population-related issues. For example, some rights concern fertility "parents have a basic human right to determine freely and responsibly the number and spacing of their children" (2) while others relate to migration: "everyone lawfully within the territory of a state shall, within that territory, have the right to liberty of movement and freedom to choose his own residence." (3) Other rights, (4) while they may relate less directly to the population dynamic, are nevertheless fundamental to any consideration of the population-quality-of-life complex - rights to health, education, privacy, sexual equality and so on. An analysis of the population-human rights interrelationship might also be a component in other frameworks. For example, in a socio-economic development framework, rights which have a social justice connotation might be starting points for any analysis of national or collective development goals.

BIBLIOGRAPHY

Chapter Four: Population Studies for population education


Figure 3
Selecting population studies for population education

A. POPULATION STUDIES: Shown as an interrelated but not integrated body of knowledge.

B. GENERAL FRAMEWORK OF POPULATION EDUCATION: Shown as a filter which provides the initial criteria for identifying the relevant knowledge to be used in selecting programme content.

C. SELECTED BODY OF KNOWLEDGE: Shown as a single unit, assuming that the aspects selected from population studies will be formulated into an integrated system.

D. GOALS AND OBJECTIVES OF SPECIFIC PROGRAMME: Shown as a filter which provides criteria for identifying the particular concepts and data to be taken from the selected body of knowledge.

E. SCOPE OF CONTENT IN A PROGRAMME: This is the result of the process by which concepts and data from the selected body of knowledge have been placed in a logical order.

F. ORDER OF CONTENT FOR THE LEARNER: The placing in sequence of the content and data as they are to be experienced over a period of time by the learner.
1. Introduction to population education and the use of the sourcebook.

2. Sources and uses of population data.


5. Determinants of population profile, including biological, demographic, social, economic, ecological, political and legal factors.

6. Consequences of population profile, for economic and manpower development; for utilization and conservation of natural resources; for education; for urbanization and rural development; for health and nutrition; for food and agriculture; and for general quality of life issues.

7. Population and politics, including power relationships; political boundaries; and migration policies.

8. Alternative responses to problems related to population, including government approaches and individual approaches to fertility and migration.

(1) For additional information, contact: Executive Secretary, ASSP, P.O. Box 44777, Nairobi, Kenya.
INTRODUCTION

Programme planning is the process of identifying, assessing and choosing between alternative pathways and strategies leading to implementation. In theory, a logical progression of thought and action appears necessary to move from the inception of an idea to its realization. However, in reality, each step often necessitates a modification of what has already been planned or implemented. In actual planning, whether at the national or the local level, a simple unilinear model never applies and, as has been noted, "the proportion of successful plans (successful in the sense that the plans are adopted and implemented) compared with the total of planning attempts is undoubtedly low". (1)

In planning a population education programme, it is necessary to consider the total learning system - formal, non-formal and informal - in which learners are involved at any given time, as well as the settings through which they are likely to pass in the future. Such an assessment will help determine the most appropriate settings, style of programme, content and teaching methods to enable a particular group of learners to meet a particular set of goals. Because of differences in background, in folk demography, in access to learning situations, in age and level of intellectual and emotional development and in socio-economic status, different learners will require different learning experiences.

In practice, however, few societies are so structured that they can readily permit such an integrated approach. Established institutions with traditional educational prerogatives already exist. Groups which pay attention to population issues already have programmes going on. Accordingly, most proposed programmes must take account of the existing situation, institutions of learning and population-related programmes.

Figure 5 presents in summary form some of the characteristics of school and out-of-school educational programmes that may be useful to planners in determining the most appropriate setting. For although the school has a captive audience, it is also very often an inflexible institution in which it may be hard to impose change. On the other hand, in view of the rôle which schools play in society, the inclusion of population content in school programmes can help to legitimize the discussion of population issues in the society at large.

Since participants in many out-of-school activities are closer to decision-making points, programmes for them are usually more flexible and therefore able to incorporate new content and ideas more easily. However, they generally lack human and financial resources and seldom provide the kind of formal certificates or diplomas awarded by schools that are so often needed for employment and advancement.

There is no single setting best suited to the needs of population education; rather there are, in most societies, a range of institutions which can be used to facilitate population learning.

Figure 6 can be used as a basis for the development of a broad-scale plan for population education programmes. The matrix is suggestive only. It lists a likely range of school and out-of-school settings in which population education can be given. It also lists several items - like the population situation, quality of life, reproduction and action programmes - which might be the organizing frame for a population education programme. In each of these items, a series of topics like migration, food and physiology, are examined. These topics in turn provide the content for a set of objectives of understanding and of skills, attitudes and values derived from the general goals of the population education programme.

Thus, the matrix suggests the various paths which can be used to disseminate the range of learnings that are considered important. Where

isolated programmes of population education exist or are in progress, the matrix helps planners identify deficiencies in their own activities as well as imagine possible links with other educational activities and ways of reaching the audience. To use the matrix most effectively, planners need to know and assess:

- The potential access of different groups of learners to various educational settings;
- The different points in time at which they pass through each setting, as well as their levels of intellectual and emotional development at those moments; their previous exposure to population-related learning; and their current interests and concerns;
- The strengths and weaknesses of each setting in dealing effectively with different content areas and different groups of learners;
- Cultural, political and social sensitivities in regard to teaching a particular content in particular settings;
- The educational activities (curricula and programmes) already taking place within each setting.

With these facts in hand, planners are in a position to fit together learners, settings and learning.

This approach to planning is possible at national, state or local levels provided there is some form of co-ordination between the different educational activities contributing to a programme of population education. Such co-ordination is also desirable among the various international, governmental and non-governmental funding agencies which support population education activities, to help ensure that they are providing the full range of assistance required to meet overall programme needs. In effect, planning groups are frequently composed of representatives from a variety of population-related programmes which reach a wide range of learners. When such a broadly-based planning group adopts this systems approach to planning, it is, at the same time, taking an initial step toward a co-ordinated programme of population education.

CONSTRAINTS AND OPPORTUNITIES IN PLANNING

In this section, we identify factors which raise problems in the development of programmes of population education. Planners most of the time have to envisage specific activities aimed at minimizing constraints and making the best use of opportunities. Where the constraints arise from wrong perceptions about the nature of population education or from a lack of awareness of its potential contributions, these activities may be designed to promote support, participation and co-operation. Where the constraints are due to lack of resources, the activities may involve identifying existing resources and developing ways in which they can be pooled. These two goals can often be combined; providing information about population education, to those people whose interest or support is desired. In this way, activities can be integrated with the opportunity for them to contribute to programme planning and development and, in so doing, to help shape the programme to meet their needs.

The socio-political context

One of the first stumbling blocks to the development of population education programmes may be the way people actually perceive population education and the extent to which they understand its significance. In the early stages, at least, this perception may be more important than the reality as recognized by the planners. The difference between perception and reality is sharpened by the fact that population education activities have not usually evolved from within a community or a society but have nearly always been initiated from above - from ministries, from private organizations and from elites - all of them often responding to initiatives from international agencies. This lack of a broad national constituency suggests that planners need to be particularly careful to include activities which will increase a people's understanding of population education and help them recognize its potential value. This kind of objective might be achieved through the media and through awareness - motivation activities which reach opinion leaders in the community, e.g. labour leaders, teachers, journalists, preachers...

All countries have policies or plans for national development which, explicitly or implicitly, contain population components. Population education activities can and should be more closely related to these overall plans. This is essential and possible - whether the policies are anti-natalist or pro-natalist, concerned with changing patterns of population distribution or with changing rates of growth. It is important that policy-makers, in considering immediate or short-term "solutions" to population problems (no matter how defined), should begin to think of the more distant future and to make educational programmes an explicit part of policy, integrated with overall population planning and development strategies. Population education planners may need to "educate their masters", the policy planners, in order to achieve both commitment and planning integration. Meetings or seminar workshops could be organized for policy-makers and planners in population-related subjects, in order to encourage joint consideration of the national population situation and its implications for socio-economic development.

There is another way, too, of looking at this problem of co-ordination within a nation. In many countries, population policies announced at the highest levels of government have not attracted the attention and support of all bodies whose cooperation is needed for effective implementation,
for instance, ministries of education have not always seen the development of population education programmes as a matter of high priority. It may therefore be the duty of planners of population education programmes to find ways of making clear to educators generally that population education is relevant to the policies and strategies of the educational systems of which they are a part.

Another problem which has planning implications concerns the political and economic power distribution between social classes, political or ethnic groups within a society and the adoption of family planning concepts. Fears about differentials in fertility among these groups and the reversal of the demographic situation when moderating population growth in one group and not in the other (majority/minority relationship) are problems which must be carefully investigated and considered before population education programmes can be initiated.

Planners must also make themselves aware of socio-cultural attitudes and norms: a number of Latin American educators have noted that a lack of scientific understanding of the socio-cultural elements of sex and family life and of the relationship between community values and behaviour has limited the development of population education programmes in their countries.

Human and material resources

In the early seventies, population education programmes in schools in a number of countries of the developing world received relatively large support from a variety of international funding agencies. Many of these programmes enjoyed resources which were not available in most other educational areas. Programmes, planned at a national level, often set up new bureaucratic structures within ministries of education - to plan and implement seminars, workshops and training programmes, to diffuse the idea of population education and to encourage programme support. In the absence of local professionals possessing certain types of competences that were thought to be needed, funds were usually available for foreign advisers and consultants. The size of the funds also blocked efforts of co-ordination and created frustrations among personnel whose programmes were less well endowed.

The lack of trained personnel for planning, for teacher training, for the development of population studies, for curriculum development and for teaching has also been a major constraint in the development of programmes. However, for programme planning and implementation, considerably more personnel with appropriate skills may be available than is thought to be the case. And the amount of time and resources needed to provide them with the learning and skills specifically related to population, though not inconsiderable, may be smaller than is often imagined when new programmes are planned. Planners are well advised to identify these potential resources through surveys of current educational programmes and activities in areas related to population education.

One particular aspect of the newness of the field deserves special attention, namely the training of future programme leaders. Several countries have felt the need in recent years to provide certain individuals with long-term training abroad in population education or in related fields. When these individuals returned home, it was frequently found that their training was alien to local conditions and no longer completely relevant to local programme development. Greater emphasis has now therefore been placed on shorter-term training in the home country or region and on short internships to visit projects in other countries.

Shortages of both human and financial resources, while serving as constraints in some respects, can also spur planners to develop strategies which will promote co-operation and innovation within the educational setting and, at the same time, bring about increased integration of population education with other programmes through a greater sharing of responsibility.

The relative newness of population education

The fact that population education programmes do not possess a long history or a great wealth of experience is sometimes seen as a restriction to their development. And it is true that there are few models upon which to build. However, there exists a large amount of experience, in planning and implementing innovation in school and out-of-school systems of education, which is relevant and which planners should review. All too often in any new educational programme, it is assumed that nothing is known about the task and that new research efforts are needed. Without denying that this problem exists, planners should phrase their questions in new areas in ways that will make it possible to use the results of existing experience in related areas. And specialists who have this related experience should be involved in the planning process.

In fact, the comparative newness of population education programmes can be an asset. Planners may develop new strategies to short-cut old difficulties. They have the opportunity to innovate without encountering as much build-up of resistance as was perhaps the case with earlier projects in similar fields.

LEVELS OF PLANNING AND IMPLEMENTATION

It is important, when planning population education programmes, to decide on the degree of centralization and of control which is needed. Will all activities be planned at the programme's headquarters? Will key field people have responsibility for decision-making? To what extent will the learners
themselves participate in planning and in implementing the activity?

This issue can be sub-divided in a number of ways, since a programme may be highly centralized in some respects and decentralized in others. For example, teachers may be encouraged to be creative in modifying centrally-prepared materials and in developing supplementary local materials, although programme administration remains under highly-centralized control, or, again, teacher recruitment may shift away from headquarters toward greater local control.

Most population education activities, however, and particularly those in schools, tend to be highly centralized. In most developing and many industrialized nations - with the exception perhaps of the USA - education and most social services are centrally administered. In addition, the newness of population education and the consequent lack of appropriate expertise seems to induce initially some centralization - at least until a sufficient number of qualified professionals have been trained.

Several trends away from centralization are, however, discernable. The Philippines, Thailand and Sri Lanka, for example, are divided into a number of school regions, each with a measure of responsibility for the planning and implementation of schooling in that region. This will eventually include responsibility for the development of curricula materials and teacher training, both for population education programmes and for other aspects of education.

Chile, which has a somewhat unusual geographical configuration, is at present examining the possibility of developing a population education programme which will be interesting in several ways. Chile's population growth rate is 1.6 per cent per year. Its perceived population problem is not one of growth but one of distribution. In view of Chile's great sub-national variations, a number of distinct regions have been established - each to deal with its own particular population issues. The national population education programme will therefore be the sum of the sub-national programmes.

Related to the trend toward decentralization and regionalization is an increasing concern for the relationship between the learner and the development of the programme. The key word here is "participation", which necessarily involves greater programme localization. This trend is more clear in out-of-school programmes as shown, for example, by the functional literacy programme in Northern Thailand.

Greater decentralization and localization of participation in programmes will inevitably increase the demand for both financial and human resources. While population studies for population education may be developed centrally and serve as a common ground for all persons working in the programme, additional attention will need to be directed to particular issues that may concern only one locality. The large-scale economies that are made possible by preparing curricula materials for an entire country will have to be weighed against the potential learning benefits of materials more directly responsive to local learners' needs.

The time frame for population education activities: planning implications

The question is often asked: how much time is required between inception and full implementation of a programme? The answer has frequently been given in terms of national planning or budgeting periods, such as five-year plans, or in terms of the available support from international agencies. In reality, however, the length of time will depend upon the programme's goals and objectives and the extent of the intended activity. Clearly, an attempt to infuse the school curriculum with relevant population concepts, including the preparation of new text materials and the training of teachers, will require a longer period of time than the infusion of population-related concepts into a localized out-of-school programme which already exists.

Before learners' activities are actually begun, time will be needed for building programme support, for identifying and involving individuals and programmes with related goals and experience, for curriculum development, for training teachers and for developing learning materials. When possible, too, planners should make provision for programme research - such as the assessment of learners' folk demography - which should logically precede implementation. Since some of these research activities can consume considerable time, experimental or pilot projects may be undertaken; more systematic research results can be fed into the programme at a later stage of revision.

However, there is a mistaken assumption, hidden in the question itself, that there are clear beginning and clear end points in the planning activity. In fact, the planning and development of a population education programme is the beginning of a process of institutionalization which will hopefully survive well beyond the initial period and through periodic review, reassessment and reformulation.

Planning responsibility

Two approaches have in past years been used to set guidelines for population education planning and to provide legitimacy for the achieved plan. Not mutually exclusive, they are an advisory council and a national conference on population education.

Population education advisory councils, as in the Republic of Korea and the Philippines, tend to be composed of between ten and twenty centrally-placed individuals who are broadly representative of both educational and population interests, although predominantly the former. Some of them may also represent the private sector. Their responsibilities may be related to a single programme
or may be broader in scope. The councils can play very crucial roles in the planning process, beginning with the discussion of the need for a plan, continuing with the creation of the planning team, providing advice during the planning process, and then reviewing, revising and approving the final product. This process may improve the quality of the plan and is also likely to increase its chances of receiving final approval from higher authorities.

The other approach used to advise and legitimize the planning of population education activities has been the holding of a national or local conference, even a series of sub-national meetings. This approach is especially relevant for out-of-school population education because of the far larger number of institutions likely to be involved. It plays a similar role to the advisory council but it has the additional advantage of being better publicized. A national conference is the closest that any country has come so far to incorporating the numerous population-related interests (with the exception of the learners themselves) in the planning and development of population education.

The next stage is that conferences and workshops normally appoint a planning team to work out detailed plans. Although it is possible to give planning responsibility to a single individual, it is usually considered preferable to assign the task to a group. This is generally composed of people with population education and educational planning experience. Less frequently, the planning team is more broadly composed and includes representatives from the major institutions expected to be involved in programme implementation.

In some countries, people working in various planning processes - demographic, economic, social, family and welfare - have also been involved in population education planning; in other countries, so far, it has not been considered necessary to include these areas of expertise at the planning stage. In general, it is an advantage to try to ensure continuity between planning and implementation by including in the planning team at least some of the individuals who will be expected to implement the plan.

Another consideration is that of the amount of power possessed by members of the planning team in the local systems concerned. Including people who hold positions of responsibility in the local power structure may help to ensure that the team's decisions will be implemented. Unfortunately, the advantages of including upper-level decision-makers in the team may be counterbalanced by the fact that they can probably devote only limited time to the team's work.

The inclusion in the planning team of people representing the learning group is attracting increasing attention. The key word, once again, is participation. In localized out-of-school activities, learner participation in planning, material development and programme implementation is clearly increasing. At the national level, surrogates for the learners (labour leaders, heads of agricultural and teachers' associations) frequently participate in programme planning. For school programmes, however, although teachers are taking part more and more in their development, from planning to the production of materials, there has so far been relatively little involvement by the students themselves.

Influence of the funding agencies

In a number of instances, what have been called plans for population education programmes have in fact been proposals to obtain funding from international agencies to help carry out a particular project. As such, they have, on occasion, reflected some of the requirements laid down by these agencies and certain expectations about the levels of funding and the types of assistance that might be obtained. Full-time foreign advisers were sometimes provided for in the plans, despite the feeling by national planners that they were not actually needed.

One potential danger in seeking large-scale outside funding is the implication that, at a certain pre-specified point in time, this financial assistance will be phased out, with an expected simultaneous increase in national funds; nevertheless, there seems always to be a period of shock when that moment actually arrives. Modesty in the original plans may ultimately bring dividends in the transition from external to internal funding.

POPULATION EDUCATION PLANS

The increasing recognition of the necessity for institutional links and of the need for population education activities to be related and co-ordinated suggests that, in the future, more countries will develop overall national plans than in the past when multi-sector national commitment was lacking. These may take the form of a total plan covering all sectors or they may be separate school and out-of-school plans. Division of the plans into other kinds of segments is also possible according to control by government or private sector, by source of funds or by geographical area.

A number of essential elements are included in all complete plans. Certain other elements can be considered optional. Figure 7 provides a general view of common planning components and processes.

(1) See, for example: Asociación Colombiana de Facultades de Medicina, División de Estudios de Población: Memorias del primer seminario Colombiano sobre educación en Población, Sochagota, 5-7 de noviembre de 1970 (coordinadores: Escobar, G. L. and Chaves Rosero, J.).
The planning context influences every aspect of the plan's development and is the source of its overall rationale. An analysis of the opportunities and constraints in the planning milieu leads to the identification of activities needed to produce support, involvement or co-operation from policymakers, educators and the public.

(2) The rationale for the programme becomes an expression of general programme goals. These goals will shape all subsequent activity but may be modified according to administrative capacities and the human, physical and financial resources available. They also may be modified by later programme experience. Difficulties in audience selection, in participation or in implementation may necessitate a reassessment of programme goals, as stated in Chapter Three.

(3) As the diagram indicates, it is too easy to assume that programme resources will be provided in a form which can readily be used. Human resources (administrators, managers and teachers) may require training; physical resources like buildings, equipment and materials may require development or adaptation.

(4) The other major components of strategy - the selection of learners, programme content, methods of instruction and evaluation - hinge upon both programme aims and development of resources and are at the basis of programme implementation and of setting specific performance objectives. In each of these areas, it may be necessary to develop strategies of communication with learners, learning materials and evaluation procedures. These development processes set the parameters of implementation - usually as a series of objectives of phased steps; the tasks to be undertaken, the groups to be involved and the targets to be attained. In formulating these specific objectives, each one should be related to the required resources and may involve a cost benefit analysis.

(5) While evaluation procedures have been placed at the end of the diagram, every step of programme implementation requires assessment and reassessment, evaluation should accordingly be thought of as a continuous as well as a terminal process. (See Chapter Eight.)

One other aspect of the planning process that should be stressed concerns the interrelationship between planning elements. Some decisions predetermine subsequent decisions. For example, following an infusion approach in a school programme will, in effect, determine the number of teachers to be trained and the nature of the training they are to receive. The decision to develop a film strip or any other visual aid will create a need for the necessary supporting technology and its maintenance.

Chapters Seven and Eight, which deal with the implementation of school and out-of-school programmes, pay considerable attention to the processes of programme development. In essence, these chapters describe the planning and management of specific sectoral programmes.

THE ISSUE OF CO-ORDINATION AT IMPLEMENTATION LEVEL

Education is seldom the province and responsibility of any single ministry, agency or institution in any country, even where governmental services are centralized. Quite apart from the Ministry of Education itself, ministries of agriculture, labour, social services, interior and health, among others, are likely to possess significant educational domains and a variety of educational programmes. To this list must be added the myriad of private and non-governmental institutions which are involved in education in any way that could be related to population education. The length and breadth of the list brings into sharp focus the problems that are likely to arise through difficulties of communication, different perceptions of audiences, divergent needs and approaches, to say nothing of bureaucratic territorial concerns.

Of course, co-ordination does not solve all problems and may even create new ones. Too great a centralization may have the effect of stifling innovation and creativity. A co-ordinating agency may become a self-perpetuating monolith, dedicated as much to its own survival as to the needs of the programme. There is always the danger that, in an extreme case, co-ordination could mean that only one message is transmitted, only one type of teaching and learning fostered. A balance between efficiency and diversity must be sought.

This balance can be achieved in part through the involvement in planning and programme monitoring of groups who have population and population-related interests as well as educational programmes, so that the population education programme reflects a diversity of perceptions and approaches.

A plan is an essential element in the development of a population education programme. Like an up-to-date road map, it helps in charting the shortest course between an idea and its fulfilment. However, in some cases, a plan - like a map that is out of date - can be more of a hindrance than a help. It is incumbent upon planners, therefore, to be aware, from the very beginning, of the implications of their decisions and for the implementers to be prepared to revise or entirely overhaul a plan that is clearly not fulfilling its function.
Chapter Five: Planning population education programmes


### SOME MODAL DEFINING CHARACTERISTICS OF NON-FORMAL AND FORMAL EDUCATIONAL PROGRAMMES(1)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Non-Formal, Non-school Programmes</th>
<th>Formal School Programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structures</td>
<td>On a continuum from high to low degree of structure, but usually the latter; little interrelatedness of components</td>
<td>Relatively highly structured; functionally interrelated set of units hierarchically ordered</td>
</tr>
<tr>
<td>Content</td>
<td>Usually task- or skill- centered; dictated by functional needs of participants; low verbal; may reflect values conflicting with status quo and elites; discreet content units</td>
<td>Generally academic, abstract and often &quot;ethnocentric&quot;; highly verbal, reflects status quo values of elites; articulated content units</td>
</tr>
<tr>
<td>Time</td>
<td>Short-term, present-time orientation; time and gain closely joined; often part-time study; flexible timing of activities</td>
<td>Future-time oriented; time and gain not joined full-time attendance stressed; lock-step, inflexible sequence of activities</td>
</tr>
<tr>
<td>Controls</td>
<td>Uncoordinated, fragmented, diffuse; voluntary organizations predominate; greater degree of local control; decisions often made at programme level</td>
<td>Coordinated control, national, regional, or religious bureaucracies predominate; centrifugal tendency; elites influential in higher control positions</td>
</tr>
<tr>
<td>Locales</td>
<td>Low visibility, may be on-the-job, at home; participants bear fairly low costs; high efficiency of locale utilization, i.e., functionally related to learning</td>
<td>Highly visible, expensive, fixed in place; often state-supported; urban preference; low efficiency of plant utilization; learning physically isolated from application</td>
</tr>
<tr>
<td>Functions</td>
<td>Great variation but stress on resocialization, acculturation, and learning of practical skills and knowledge to be used in work or community situations; terminal; seeks to supplement or complement formal schooling</td>
<td>Stress on socialization, enculturation, and perpetuation of educational bureaucracies; legitimization of existing elites, their values and behaviours; conferring status, selection, and possible elite recruitment</td>
</tr>
</tbody>
</table>

(1) Source: Paulston, R.G., ed., Non-Formal Education: An Annotated International Bibliography, Praeger Special Studies in International Economics and Development, Praeger Publications, New York, 1972. This table is useful even though it is clearly an over-simplified and somewhat abstract view of a highly complex situation. It does not reflect the wide range of situations that may exist in any single country, nor does it reflect changes taking place in education today.
### figure 5 (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Non-Formal, Non-School Programmes</th>
<th>Formal School Programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rewards</td>
<td>Payoffs tend to be tangible, immediate or short-term gains related to work or daily life, i.e., increased material well-being, productivity, self-awareness, and/or power to control environment</td>
<td>Payoffs tend to be deferred promise of long-term gains in socio-cultural and economic status</td>
</tr>
<tr>
<td>Methods</td>
<td>Teacher helps students interact with and master the material to be learned and applied; content-centered; methods relatively flexible and related to application and performance-standard needs</td>
<td>Knowledge standardized, transmitted from teacher to pupil in classroom; teacher-centered; teaching methods dictated by policy, relatively inflexible and non-innovative</td>
</tr>
<tr>
<td>Participants</td>
<td>Learners from all age groups, i.e., not age- or place-defined; job mobility concerns predominate; great variety of teacher qualifications and motivations</td>
<td>Students age-defined predictable, usually urban in outlook and social-mobility conscious; teachers formally certified</td>
</tr>
<tr>
<td>Costs</td>
<td>Great variation in costs per programme and per student vis-à-vis costs for comparable educational programmes in formal system; economies of size not often possible</td>
<td>Costs standardized by level and increase moving up the structural hierarchy; economies of size possible</td>
</tr>
</tbody>
</table>
Figure 6

Matrix for analysing and planning the content for population education programmes*

<table>
<thead>
<tr>
<th>An illustrative content of population education (1) (2)</th>
<th>The population situation at micro and macro levels</th>
<th>The individual, population and the quality of life including</th>
<th>Human reproduction</th>
<th>Action programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>The educational system (3)</td>
<td>Size</td>
<td>Growth</td>
<td>Distribution</td>
<td>Migration</td>
</tr>
<tr>
<td>Universities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher-training institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out-of-school youth programmes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literacy programmes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;etc.&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As above, plus where appropriate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural extension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>Community development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;etc.&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. This represents only one framework for the content of population. Other frameworks could easily be substituted.
2. Each heading would then be expanded to include the knowledge, attitudes and values which have been selected as the specific objectives for the population education programme.
3. All educational settings with a potential contribution to population education; here a distinction is made between urban and rural. Other distinctions will be valid in a particular country, for example, by cultural groups.
Figure 7
Planning components and processes

The planning context milieu

Demographic, socio-economic, political, cultural and ideological factors

Programme resources

Human

Physical

Economic

Rationale for programme policy

Programme strategy

- Selecting audience
- Selecting and developing specific strategies
- Selecting and developing content
- Selecting and developing teaching/learning and methods
- Selecting and developing evaluation procedures

Programme implementation

Phasing (steps)

A

B

C

D

E

Specific objectives

Evaluation

Reassessment of aims
INTRODUCTION

There are three major reasons for combining discussion of methodology and research into a single chapter. First, almost every aspect of the development of population education programmes, from their formulation to the evaluation of goals and objectives, involves methodological questions which currently require research.

Secondly, the methodological aspects on which this section is focused concern the methods used at present to structure the teaching/learning process in programmes of population education. Within programmes of population education, many types of methods are in use today. As yet, there does not appear to be agreement about which methods or combination of methods are most likely to achieve the goals of population education or be effective in different educational settings, and little will be known until the requisite research has been completed.

The third reason is that research in population education itself has to face methodological considerations which stem from its goals and objectives and from the complex interactions of, for example, population and socio-economic variables. Questions about the methodology of research include the problem of how learners can investigate population-related interrelationships within their families and communities and prevailing folk demographics. They also include problems of techniques for researchers who need to establish more clearly the nature of learning variables within given contexts and the comparative effectiveness of alternative learning strategies.

SOME ISSUES ON TEACHING/LEARNING METHODS: FORMAL, NON-FORMAL AND INFORMAL

Teaching/learning methods used in school programmes range from highly-formalized and structured class lessons or lectures through non-directive participatory group work to non-structured and highly informal discussions. At one end of this range is the example of an Asian national manual suggesting methods which are largely learner-centred and which emphasize participation and learning by doing. It includes, for example:

- Local field surveys: to collect, record and analyse local population data.
- Group discussion: to report results and discuss findings.
- "Buzz sessions": to debate different interpretations of information and results.
- Case studies: to record evidence and summarize problems.
- Simulation games: to assess the repercussions of population events.

In different school programmes of that region methods appear more teacher-centred, like those emphasized in another manual:

- Lesson series: to provide learners with a knowledge of population events and trends.
- Analysis of written materials (like newspapers and magazine articles): to help learners extend their knowledge and to raise "popular issues".
- Written reports: to encourage learners to summarize information.
- Class debates: to encourage learners to discuss topical population-related events.
- Revision of topics: to encourage learners to record findings.
- Evaluation: to test what learners know about the topics covered.

(1) In this report the term methods is used to indicate a particular procedure or procedures used to structure teaching-learning situations (e.g., methods of teaching - methods of learning). The term methodologies indicates the orderly arrangement of a set of procedures and/or ideas about those procedures; thus in this book it refers to a range of methods which are conceptually or practically linked. The term techniques means the manner in which a teaching method is developed or applied.
The differences between these kinds of recommended activities reflect somewhat diverse perceptions of the teaching/learning process. The fact that the latter methods represent a more traditional approach does not imply that they are less effective in enabling learners to acquire an understanding of the goals of population education. Nevertheless, the kinds of methods which are available to teachers in the classroom are limited by a wide range of factors, which includes:

- The administrative structure of the school system and the opportunities open to teachers to plan and experiment.
- The organization of the school (multiple-class teaching, team teaching) and the consequent teacher-pupil ratio.
- The extent and quality of pre-service and in-service teacher training (especially the opportunities for teachers to observe and use alternative methods).
- The availability of teaching/learning materials, audio-visual aids and the physical conditions which make these viable.
- The past learning experience of students, whether active or passive, and the reciprocally perceived roles of the teacher and of the learners.

The teaching/learning methods employed in out-of-school settings are equally diverse and varied. Two approaches currently being used in Thailand and the Philippines are chosen here to indicate the range of methods found in these programmes. In the Thai project, which involves an isolated non-literate rural population, a Freire-type approach is being used to identify local needs and to motivate learners and make them aware of socio-economic and quality-of-life problems, e.g. relating to fertility and migration issues. Thereafter, the learning method is based on non-directive group discussions which are organized and structured by the learners themselves. In the Philippines project, the learning method chosen for use with a generally literate but urban-poor population is based upon the prior development of a kit of learning materials which forms the basis of subsequent family discussions (using a question and answer format) led by trained "visitor" personnel.

Informal programmes do not use teaching/learning methods as such but rather what might be termed strategies of approach. The strategies in most information, education and motivation programmes or information, education and communication programmes with a population concern are again extremely varied. They range from mass media (radio, television, newspapers) to folk media.

What research does consistently indicate is the existence in the learning situation of variables which cannot always be controlled or predetermined. For example, the effectiveness of methods is frequently influenced by a teacher's personality or personal style of teaching, by his or her degree of commitment to the subject matter, by the quality of his or her relationship to the learners and by the kinds of motivation which learners bring to the materials and content of the learning situation. Again the suitability of particular methods would still depend largely on the prevailing learning contexts or environments. Although the pedagogical difficulties may not be insurmountable, there are nevertheless considerable problems in advocating participatory methods in situations where opportunities for learner participation are poor, or in advocating learner-centred methods where the traditional role of learners has been a passive one.

SOME PROCESSES OF POPULATION LEARNING

The task of problem-solving requires a number of skills. The following list is not meant to be exhaustive or prescriptive. In some cases, all may not be required and, in others, additional ones may be desirable. Six skills appear to be basic; they are the ability to:

1. Identify issues and problems.
2. Define the nature of these issues and problems (and their specific components).
3. Collect and select relevant information.
4. Organize this information into meaningful categories ...
5. Analysis and judgment ... in order to
6. Decide upon and/or plan alternative responses (now and in the future).

Problem-identification is a basic skill and a first step in the process of understanding. No matter what the issue, whether it be a selected life-cycle problem affecting the individual and family or a broader quality-of-life theme at community or national level, teachers and learners need to be clear about the issue(s) to be examined, the reasons for examination and the scope of the problem. Sometimes this will prove a difficult task, for identification presupposes a breadth of knowledge or at least an awareness of complex interlocking factors. With young learners, teachers are likely to play a key role in pre-selecting and organizing information and materials to help them identify problems. Older learners, particularly adults, may have already a greater awareness of problems and the

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(2) Throughout this report the term "strategy" is used to refer to the procedures by which (programme) resources are deployed or developed in order to attain a given end (i.e. strategy of attracting an audience; of implementing an out-of-school programme).
teacher should use methods which allow them to decide what is relevant for them and what is irrelevant.

**Definition** means analysing the constituent parts of the problem or examining how it fits into a larger whole. Defining problems will, in most cases, require high levels of specificity and clarification. Experience has generally shown that, without such specificity, subsequent activities are needlessly complicated.

The methodological implications here are similar to those discussed in connexion with the skill of problem identification. However, an additional point should be made. In out-of-school programmes, the way adult learners perceive and define problems may be rather different from the way programme organizers see them. As long as the defined problem is manageable, teachers are under an obligation to allow learners to pursue this and any other related problems which they see as relevant. The task of problem definition can be made easier by discussion, debate, seeking advice from people outside the group and perhaps by role-playing and simulation games.

Selecting and collecting information about defined problems (information of both a factual and an intuitive kind) requires being sure about its relevance. The task of collecting information will usually involve both teachers and learners. This information will include facts about trends, patterns and behaviours at local and national levels as well as information about learners' assumptions and attitudes towards these trends.

When learners are considering the micro-level, part of the information can come from surveys of local families undertaken by the learners themselves. This can also be done when attitudes and values are being considered. Learners can investigate the nature of the local folk demography, too, and can identify and define local attitudes - for example, about sex preferences for children. They may need to be assisted with the planning, construction and implementation of simple survey instruments and they should also be helped when exploring their own folk demography. When attention is oriented to the macro-level, dealing with the society and the nation, collecting and then selecting relevant information becomes more difficult. School and out-of-school activities may have to rely on previously-published text materials or on a collection of relevant newspapers, magazine articles and government publications. For example, when groups of learners and teachers decide to investigate age at marriage, they can collect local information (average age of marriage, for men and women, in the village). At the same time, it is also important for them to learn the figures for the larger group (contained in the national census) in order to realize the effect these events have on population behaviour. The learners might also investigate their own ideas about the age at which a person should marry and the reasons they hold these opinions. It is these aspects of the interlocked population-related processes that are the most difficult to investigate.

**Organizing** information into meaningful categories and placing in sequence the knowledge possessed by the learning group enables priorities to be selected and the information put in manageable form for analysis and judgment. Under this latter heading, a large number of activities may be envisaged. Learners will generally need to compare and contrast assets and liabilities, weigh alternative implications, assess the consequences of these alternatives and perceive what may be involved in particular actions or reactions.

The process of decision-making must always be related to context. The desire to develop this skill is not, of course, unique to population education; other school and out-of-school programmes, for example, on health education encourage its development. But improving one's ability to make decisions calls - as we already said - for practice throughout a programme or curriculum and therefore opportunities must be provided by some form of participatory learning. It is important that learners also perceive their own responsibility for the effect that their decisions will have upon other people. Discussing the implications of a decision with peers and with other members of the learning group may be an important modifying experience. Finally, any method which fosters decision-making must, to some extent, affect learners' perceptions of themselves as people whose opinions, attitudes, judgments and decisions are worth valuing and appreciating. As their confidence and self-esteem grow, learners are likely to become more assured in their decision-making.

Some comment is also called for on the process of responding or action. One of the differences which has been emphasized between school and out-of-school programmes is that school programmes are further away in time from opportunities for action, while learners in out-of-school programmes have the chance of a more immediate response. It must, however, be recognized that sometimes this distinction may be more apparent than real. In some countries, an increase in teenage pregnancy suggests that some young people are not necessarily as far removed from action as is often assumed. Similarly, there are societies which still encourage marriage (particularly for girls) very soon after they leave school.

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(1) A note of caution is required here. In some societies, the status and role of children does not permit them to question parental or societal attitudes and values - particularly in matters related to fertility, family size and structure. Thus there are cultural limitations in adopting this type of method. This matter is discussed again later in this chapter.
In these cases, where the situation permits, educators may decide to incorporate in school programmes the components which can help learners not merely to make decisions but also to act in ways congruent with those decisions, being aware of the variety of possible responses. A decision to migrate may lead to temporary rather than permanent residence in a larger community, or it might involve a movement only to the nearest large village rather than to the capital city. Again, the decision to enlarge one’s family could in some cases involve adoption of a child rather than a further pregnancy. In both school and out-of-school programmes, it is important that alternative modes of response (and the alternative futures which each involves) should be considered.

Implications

From the foregoing discussion, two avenues of research appear most useful in developing a methodology of population education: (a) investigations into the efficacy of participatory techniques, and (b) investigations which seek ways by which a traditional, formal methodology might be modified to encourage informed and conscious decision-making.

In the search for an effective methodology, there is danger that programmes of population education - which often deal with subjects of a sensitive nature - may use methods which embarrass learners. For example, in implementing a survey to ascertain local attitudes to family size (or simple to establish what the prevailing family size is), care should be taken to exclude questions which might embarrass a community or which might make presumptive judgments about its conclusions. Similarly, in a classroom where students are trying to learn from each other about family structure, care should be taken not to upset the children whose backgrounds are different from those of the other children.

In general, the focus should be upon the present and the future. This orientation may note the differences between the present and the past (and a different kind of decision taken by past generations) but it helps avoid unnecessary comparisons. It is also worth stressing that past decisions about population-related matters were made in response to past circumstances (for example, high fertility was in some respects a response to a high rate of child mortality).

Concerning implications for teacher training, and in view of the fact that there is at present no fixed combination of methods particularly recommended for population education, an experimental approach in developing a methodology is needed. Teacher trainees should be given opportunities to observe, practice and evaluate a range of methods. Within the training setting, they should themselves be educated by means of the same techniques as those advocated for use in the classroom; where innovative methods are suggested, these should first be used to train the teachers who are expected to use them on learners. Experimental approaches to methodology must involve the officials who have supervisory responsibility for teacher education and research. Educational administrators, supervisors and inspectors should be made aware of the methodologies advocated, particularly where these represent a break with the past.

The writing of handbooks of suggestions for teachers would seem to be a valuable idea in developing a methodology. Ideally, these might be written by practising teachers who would relate their ideas and their experiences in using particular methods, materials and audio-visual aids. In this and in other ways, teachers would be encouraged to teach other teachers. There seems also to be considerable value in the group or team approach, where specialist interests and talents can be capitalized upon.

In training teachers for school and out-of-school population education programmes, there is a pressing need for a better understanding of evaluation and research procedures. This understanding need only be basic but it is necessary for two reasons: so that teachers can be more easily involved in small-scale research projects which will provide content material, especially about population-related issues and perceptions at local levels; and so that teachers can assess the effectiveness of their own methods for achieving their goals and objectives.

RESEARCH

General research needs

Many of the knowledge needs of population education are being investigated by researchers in a variety of fields. This does not, however, mean that all the basic research requirements of population education are being met nor that there is not an urgent need for specific applied, action-oriented research concerning programmes of population education.

There are at present four broad areas of needed research:

1. Research concerning the population characteristics of a society (and varying perceptions of these characteristics) at national, community and family levels, in order to provide a knowledge base which is as complete as possible and from which projects and programmes can then select appropriate content.

2. Research concerning characteristics of the potential learning groups in population education programmes, their pre-programme perceptions of their population situation and of the interrelationships between this situation and other aspects of their lives.

3. Research concerning the potential of different educational settings, structures, approaches and methodologies for population education.
4. Research and evaluation concerning the efficiency of strategies in planning and implementing population education programmes.

Among these overall research requirements, Figure 8 points out areas where major gaps exist. This table distinguishes between the categories of research normally undertaken by educators, particularly population educators, and categories where research is generally undertaken by other people. It is the totality, however, which should be perceived as a research programme for population education, despite the fact that a considerable portion of it may be conducted by institutions or individuals who may not be specifically concerned with population education.

The major gaps which may be identified are in the areas of:

1. Research concerning micro-level population characteristics (and perceptions of those characteristics).
2. Research concerning the status and processes of population learning.
3. Assessment of educational research for population education needs.

Considering each of these gaps in turn:

In the area of research concerning micro-level population characteristics, the deficiencies are most acute in the fields of micro-level economics (family economy and its interrelationship with family size, composition and welfare) and micro-level social psychology (the ways in which population-related values and attitudes are formed and transmitted within family groups and between these groups at community level). The ways people perceive their own population situation within the overall framework of their society's evolution also requires further research.

In particular, in the area of micro-demography, knowledge is needed about how individuals perceive both macro- or national-level population phenomena and their own life-cycle events. For example, are the latter viewed as isolated events or are they perceived in sequence and as interrelated? Do individuals in different cultures perceive these events in different ways?

Inter-family communication of population-related ideas is another subject at present being investigated in a number of societies and this work needs to be extended to studies of parent-child interaction. For example, how do children learn population-related attitudes and values from parents, and how and what do parents learn from children?

In the area of research concerning the process of population learning, the need is for research which will establish the ways in which the young are "population socialized" in various societies. The desire of the experts working in this area of population socialization - behavioural scientists, sociologists and social demographers - is to ascertain and explain how human beings in different socio-cultural and socio-economic situations acquire population-related knowledge, understandings, attitudes and values. Studies are under way to identify these processes, and already the importance of learning contexts has become evident.

The research undertaken in this area has concentrated on children in the school situation and little work has been done with socialization processes outside the school environment. Research has been recently completed in the Philippines on how children learn concepts of family size, and this type of cultural-anthropological study requires extension in breadth (to other geographic areas) and in scope (to other population learnings). Many institutions in society (like the family, the peer groups, the school and the church), in overt or covert ways, influence the population socialization of the young, but how these institutions impart these learnings is not well understood.

In the area of the assessment of educational research, there is a need to select conclusions which can be applied to population education programmes. Virtually every area of educational research has potential implications for population education. An assessment of these implications would be of great value.

In the area of the evaluation of population education programmes, the most obvious deficiencies are that:

- There is virtually no research on the comparative efficiency of different methods of teacher or leader training and on the relationship between different training inputs and the attainment of programme objectives;
- There is too little research on the role of research itself and the ways in which "findings" can be fed back into programme development;
- In particular, there is insufficient research concerning the efficiency of different methods of evaluation. Work in this area could lead to the construction of basic protocols of assessment which might assist in comparing different programme components.

Specific research problems

We have just discussed research requirements in general terms. It is, however, useful to have these issues set out more specifically in the form of "researchable problems or questions". Readers will find in Appendix E a list of specific questions and problems in three broad groups: those concerning the nature of the learner, the learning process and learning outcomes.
RESEARCH DIFFICULTIES

Time frames

Ideally, answers to most research questions are required before first steps can be taken to implement school and out-of-school programmes of population education. But most research (even excluding longitudinal studies) takes a long time; implementation cannot always wait. And frequently the best that can be managed is to start the investigations at the same time as the programmes so that the former will eventually produce results which will modify the programmes' development. The problem with this approach has been that very basic research questions of a general concern to all national programmes have remained uninvestigated.

A second time-frame problem concerns the timing of both formative and summative evaluations. If it is accepted that a major purpose of programme research is to help suggest changes in the development of content, teaching/learning methods and management procedures, then it follows that studies should be completed by the time these programme decisions have to be made. This means that the timing of a variety of activities needs to be very closely co-ordinated. For example, it may be expected that a curriculum pilot study will be followed by revision of the curriculum, then large-scale dissemination. The timing of this study must be linked not only with the training of teacher-educators and teachers to use the materials but also with the preparation of supervisory personnel.

Two important types of studies needed by population education programmes are generally very lengthy: those using anthropological methods, such as participant observation, and those which require comparative measures, especially of behaviour, over a period of time. The need for these types of studies must be identified well in advance, so that their results will be completed in time to be of use to educational programmes.

Research relationships

There are problems, too, associated with the interface between research and programme implementation. One difficulty concerns the level of research. Frequently, "professional researchers" engaged in a programme are reluctant to undertake the unsophisticated, short-term study which might yield limited yet useful insights into programme activity. In stressing the need for research, it is important to differentiate between this level and that of a more considered and scientifically thorough kind. Both levels of research are needed.

Another difficulty arises when researchers complain that their conclusions tend to be ignored, despite the lip service that is paid to the contribution that research can make to programme development and improvement. A major part of this problem lies in the fact that both research staff and other programme personnel see research as a difficult activity which requires specialized expertise. This attitude tends to isolate research from the programme staff and, therefore, from the programme's needs. In addition, research is viewed as being somewhat peripheral to the programme's goals and even evaluation is usually considered as an activity to be undertaken at the end of a programme. Thus, instead of being seen as contributing to programme development and improvement, evaluation is also considered as peripheral or simply as a way of fulfilling a requirement imposed by a funding or sponsoring organization.

An effective way of overcoming this isolation is to increase the involvement of non-research staff in programme research and evaluation. At one level, this involvement may include activities by curriculum and training staff to gather data in their areas of specialization; at another level, non-research staff can work with researchers to help identify the types of problems which the programme needs to solve. The key factor is for non-research staff to recognize that they themselves are capable of performing certain kinds of research and formative evaluation and that these activities would be of immense value to programme improvement at large.

To the extent that programme staff are willing and able to conduct simple research, they are likely to appreciate better the potential value of more sophisticated types of research as tools for programme improvement. When curriculum, training and administrative staff members voluntarily and regularly go to researchers for assistance in making decisions about programme inputs, at that moment, research and evaluation units will have achieved the level of programme usefulness to which they aspire.

Research organization

To take another aspect of the research problem: a difficulty arises in many programmes when decisions have to be made about who is to undertake the tasks of basic action-oriented research and the work involved in researching and evaluating programme processes and results. In large-scale population education programmes, the bulk of this type of research and evaluation activity is conducted by a research and evaluation section of the programme staff. At the opposite extreme are the cases where all research activities are sub-contracted to universities and research institutes.

(1) Formative evaluation: assessment procedures that are used throughout an educational programme to provide information that will aid programme modification or amendment.

Summative evaluation: assessment procedures at programme termination which describe its effectiveness and utility - or more generally the extent to which the programme has achieved the initial goals and objectives.
Between these two poles, a number of programmes include both methods.

The advantages of each approach are reasonably clear. Where the research and evaluation section is part of the programme, there can be more immediate links to programme requirements. If this function is performed by outside institutions, on the other hand, a greater degree of objectivity may be achieved and a wider variety of types of research expertise employed. For any programme, culture-specific and situation-specific factors need to be considered in determining the appropriate mixture of internal and external research.

Some measurement problems in research and evaluation (1)

1. Measuring behaviour. Most of the summative or final research currently being undertaken in programmes of population education seeks to measure, generally by pre- and post-tests, the changes which have occurred in population-related knowledge, attitudes and values. It is assumed that these changes will indicate the direction of subsequent behaviour or will lead to behavioural change. Unfortunately, there is little real evidence that links occur in this way. One difficulty is the long time span between school education and the making of subsequent lifecycle decisions. Even in out-of-school programmes, a series of intervening variables may influence eventual behaviour.

A promising new line of research involves the measurement and evaluation of "intents to act" (the outcome of decision-making) rather than the measurement and evaluation of "response behaviour" or actions at a much later period. The data suggests that "intents to act" may predict behaviour more soundly than do measurements of knowledge or of changes of attitude. This does not mean, however, that longitudinal studies do not remain of value.

2. Designing better tools. Population education research suffers from difficulties which are common to research in other areas of the social sciences. For example, there is a general lack of research methods capable of controlling all the variables likely to influence the teaching/learning situations. There is also the problem of sampling. Frequently, data do not exist that will enable researchers to stratify a population accurately. Again, there is the problem of devising tools which might measure fairly small changes in knowledge or attitude within a population education programme. Finally, there is a need to standardize measurement devices, to enable cross-cultural or cross-national studies (of population concept learning, for example) to be undertaken.

3. Research priorities. Research priorities must be established (and periodically revised) by those responsible for programme implementation and activities likely to have the greatest programme impact must be given highest consideration. Establishing priorities is not a simple task. The most important criterion in doing so is the perceived importance of a possible study finding in directing or re-directing programme efforts. However, other criteria, such as the amount of time required to conduct the study, its cost, the available resources (and possible alternative uses of those resources) have to be considered as well. Finally, alternative means of influencing programme decisions - such as relying upon inferences drawn from other related studies or relying upon expert opinion - should also be considered in determining the level of priority assigned to any study.

CONCLUSION

As yet there has been little commitment to the kind of basic research which might foster methodological progress and conceptual development for population education. A concerted beginning to intensive and long-term research must be made now, and every agency working with population education programmes and projects should be alerted and assisted in developing a wider perception of research needs.

Of course, it is erroneous to perceive these research needs in quantitative terms alone. The point has already been made that different qualitative levels of research are required. This is particularly apparent in methodology, where opportunities clearly exist for groups of teachers to experiment with different methods and to report (even subjectively) their findings. Again, it is obvious that much of the research required will not be the sort that can most readily be accomplished by population educators alone. Knowledge about learners and about the population learning context may most validly be acquired by an interdisciplinary team consisting of educators, sociologists, cultural anthropologists and psychologists.

It is important to increase this interdisciplinary dialogue. As yet, there has been little coordination of research effort and few attempts have been made to analyse and define population education problems in an interdisciplinary way. There is certainly scope for inter-agency support of work shops and conferences of interested and involved scholars and researchers.

Chapter Six: Methodology and Research

Faneuff, C.T. *Action research: developing a pilot model for teaching population dynamics in Mysore State, India*. Chapel Hill, Carolina Population Center, University of North Carolina, 1972, 121 p.


### Figure 8: General Research Needs

<table>
<thead>
<tr>
<th>Topic of Research</th>
<th>Usually conducted by</th>
<th>Assessment of the state of development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspects of the population situation of a society and perceptions of those characteristics</td>
<td>Demographers and other social scientists; rarely educators other than planners</td>
<td>Reasonably well at macro-level; poor at micro-level, especially in less developed countries</td>
</tr>
<tr>
<td>The learners: (a) how they learn in general; (b) their population-learning status and processes</td>
<td>(a) Sociologists, anthropologists, psychologists, educators; (b) People from above fields who have specific interest in population</td>
<td>Considerable relevant information available from non-population-oriented studies. Very little specifically focused on population learning</td>
</tr>
<tr>
<td>Potential of different educational settings, structures, approaches, methodologies for population education</td>
<td>Educational planners, other educators</td>
<td>Considerable research has been conducted, but analyses of the implications of these studies for population education have not been made. Programme decisions are rarely based on research findings.</td>
</tr>
<tr>
<td>Effectiveness of population education programmes and their elements</td>
<td>Educators, social psychologists</td>
<td>Moderate quantity of short-term studies; however, little of this is transferable to other countries</td>
</tr>
</tbody>
</table>
Chapter VII
Implementation of school programmes

INTRODUCTION

The extent to which the nations of the world have faith in and rely on the school system has been demonstrated by the great increase in enrolments in the last thirty years and the financial commitments to schooling in national budgets. However, the fact that the school system has been relatively unresponsive to the needs of socio-economic development and slow in promoting change has to be taken into account in considering the school as a locale for population education. One task facing population educators is to explore ways and means of using the potential of the schools to serve broader educational goals.

PROGRAMME AND CURRICULUM DEVELOPMENT

When an educational innovation is introduced into the schools of a particular country, several factors need to be considered, including: the characteristics of the educational system itself; the content of the innovation; and the psychological and socio-cultural attributes of the learners.

The characteristics of the educational system

Each national system has its own unique combination of characteristics, a number of which are identified here without suggesting that this listing is exhaustive.

1. The patterns of enrolment, including differential participation according to age, sex, residence, class and communal membership. (1)

For example, the pattern of school attendance affects the organization and the content of population education programmes. Where a high drop-out occurs at any point in the total school cycle, special problems are faced in organizing the curriculum.

2. The general structure of the system in terms of alternative tracks or specialized schools.

3. The extent of administrative decentralization, the degree of standardization of the curriculum and the amount of local autonomy which individual schools and teachers possess in determining content and methods of instruction.

4. The existence or lack of national examinations at the end of various levels of schooling.

For students and teachers alike, the inclusion of population education in terminal examinations will be of great importance in view of the significance which these examinations carry in many educational systems. Without this inclusion, it will be difficult to persuade teachers and students to devote much attention to population education, especially in the terminal grades of each level of schooling.

5. The formal preparation of teachers at different levels, patterns of in-service training and career opportunities for teachers.

6. The availability of facilities and instructional resources for teachers and students.

For example, developers of teaching/learning materials are concerned about how well prepared a teacher may be for a programme and to what extent he may wish and be able to adapt general curriculum guides to a local school or class. The real question is: in how much detail should the subject matter and methods be prescribed and outlined? The final decision may depend partly on how far the educational system is able to provide individual teacher guides and materials for students.

7. The history of innovational activity, including

the existence of an established system for introducing innovations.

8. The extent to which decisions concerning the school curriculum, resources and personnel are politically influenced.

The characteristics of the content of population education

Several characteristics of the content of population education are examined below in view of their particular importance for programme development:

1. One factor influencing the structure of the school curriculum and the selection of content is the relatively low level of systematization of the general body of knowledge of population studies (see Chapter Four).

2. One of the main characteristics of population education is an appreciation of the interaction between local and larger units, i.e. the micro and macro levels. The pedagogical problem in developing this appreciation is to some extent one of proper balance in selecting content. Initially, students may deal with the interaction between families and communities. As they advance in age and maturity, their horizons can be broadened to the interactions between communities and larger aggregates like the nation and the world.

3. The degree of “visibility” desired for the programme and the extent to which the learners should be made aware of population education as a separate area of concern. A decision on this matter is linked with the way population education content is included - a subject which will be dealt with in the section dealing with the modes of inclusion.

4. One issue of population education content to be examined is its desirable cumulative character over the total range of student learning in school. This issue is particularly critical when the mode of inclusion of population education is that of introducing instructional units in existing courses.

5. The wide variation in the frameworks used to select and organize aspects of population studies for population education, which is a point in case regarding content, has been developed in Chapter Four.

6. The relationship between population education content and the content of other educations, which draw on the same bodies of knowledge or have partly similar goals and objectives, has to be considered (development education, environmental education, sex education and family life education). In pursuing the various goals of these educations, curriculum developers may find a number of ways to use, economically, the very little time available in schools in combining, for example, the different contents, while being very careful to ensure that the distinctive goals and objectives of population education are incorporated in the new educational areas.

7. The limited degree to which experience in the selection of content for the population education programme of one country is transferable to another raises the question of extrapolation constraints.

8. In countries where the general pattern of the content has been standardized, it may be necessary to find ways of accommodating regional differences, by developing a curriculum which is appropriate for members of sub-national groups with distinctive backgrounds, values and experiences.

9. The problem of a long-term perspective is inherent in population matters. For example, the pattern of births in today's generation will have ramifications for generations to come. This time horizon and the fact that individual, family and even community decisions may appear as insignificant factors in future trends presents serious content problems. The source of the difficulty resides in the very nature of population phenomena and cannot be easily resolved.

10. A particularly difficult problem in the content of population education concerns the importance of values and norms which are associated with population-related matters to a degree not found in many other school subjects. The content may be emotionally charged for the learners, for the teacher and for the community, and this may lead to controversy. The problem has other dimensions, too. In the first place, selecting content involves decisions as to what is central, what is secondary and what can be made meaningful to a particular group of students of a certain maturity. The dangers of distortion, present in many areas of instruction, are particularly worrying in an area of study where values are intimately involved. Selecting one fact to be taught instead of another means adopting a value position, consciously or unconsciously. Secondly, the level of knowledge in a number of crucial areas is inadequate and is constantly being reassessed and updated by scholars. For example, given the country-specific character of much relevant knowledge, what is “true”, what is problematic and what is just conventional wisdom may not always be clear to the curriculum developers and the teachers. This is a particular difficulty for teachers of unsophisticated background or when there are very few resources available to convert scientific scholarship into generally accessible materials. In settings where the teacher is considered the final authority, the difficulties noted above raise both educational and ethical problems. (1)

The interrelationships between content and method (whether directive or non-directive) are of particular significance in this kind of situation.

The characteristics of learners

The nature of student's physical, mental, emotional and socio-cultural development and the differences of life-style and life-cycle events between

(1) See Chapter Three.
male and female students have special relevance for population education. It is therefore important to consider the various stages in the psychological development of the learners, especially their capacity to deal with materials and processes involving varying degrees of concreteness and abstraction. As yet, there is very little information about the development of population conceptualization throughout childhood. The physical development of the learners will also affect the programme since, for instance, the onset of puberty brings increased personal concern with population life-cycle events like sex, marriage and child-bearing.

The socio-cultural milieu gives learners their first perceptions of population-related issues which require analysis and clarification. Research into the process of population socialization is, as we have already said, in an early stage of development. (1) Since knowledge about the perception of population-related matters at any local level is not usually available, the instructional setting enables the teacher to begin a process which will help students become aware of their own perceptions and of what these perceptions mean in the social context.

THE STRUCTURE OF THE PROGRAMME

Population education differs from other content innovations which involve only the modification of an existing subject, such as for example, changes in the "new mathematics". The introduction of population education into the curriculum involves a number of interrelated decisions which have to be made early in the implementation. Figure 9 illustrates the inter-connexions among six areas of decision-making in this process. When discussing the nature and consequences of these decisions, particular attention will be given to their impact on programme content. However, they will also affect many other dimensions of the programme, such as the nature and extent of pre-service and in-service training of teachers.

**Modes of inclusion**

The introduction of population education content into the curriculum of a school may be achieved in a number of different ways. In any one programme, a combination of the following methods may be used, although, to date, most programmes have adopted only one:

1. **Separate course**
2. **Segment of a new course**
3. **Segment of existing courses**
4. **Segment of revised courses**
5. **Infusion into existing content**
6. **Special ancillary arrangements**

1. **Separate course.** By this mode of inclusion, population education becomes a subject area along with other subjects which are taught at one or more grade levels. This is not a pattern which has been used in most programmes so far, although there are merits in its adoption. There are several reasons for its lack of popularity. School time-tables are already crowded and teachers find difficulty in accommodating a new course. In school systems with high attrition rates, the majority of students can be reached only in the early grades, but at that stage they often lack the maturity, experience and skills needed to comprehend and evaluate much significant content. It is therefore difficult to select a grade level that would be fully satisfactory. On the other hand, a separate course affords the greatest possibility of systematic and sustained learning and should always be seriously considered.

A variation on this pattern is a series of **mini-courses**, short periods allocated regularly at perhaps several grade levels. This pattern has been used in a few instances during the developmental stages of population education programmes. In some countries, the use of mini-courses in the terminal years of schooling is being considered.

2. **A segment of a new course.** Another approach is to incorporate population education in a new course. This type of incorporation usually takes one of two forms. In the first, population issues are regarded as one of a set of current social problems and given a special allocation of time within a new course. In the other, it is assumed that the new course has a focus or theme (development or environment, for example) into which population content could be incorporated, as judged appropriate, without allocating a distinct period of time. This type of approach is favoured by those who see population education as but one part of other educations like development education or environmental education.

3. **Segment of existing courses.** The pattern of introducing new segments or units into existing courses is the one which is most widely used at present. In this approach, new instructional units are designed to fit logically into existing courses in selected subjects at a number of grades. The subjects usually chosen for the inclusion of population education units are the social sciences, general sciences, biology, mathematics, home economics, health education, physical education and geography. In addition, the degree to which the

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content will be cumulative and in logical sequence becomes problematic. The sequential development of some courses may be interrupted in spite of determined efforts to fit the content into the structure of the existing course. It should also be noted that using this method means that more teachers will have to be trained.

4. **Segment of revised courses.** In settings where major curriculum revisions are taking place, population education can be introduced along with other changes. This avoids some of the problems of integration. In some subjects, population education content can be so integrated that no section of the course is discernable as population education; in others, some units may be clearly identifiable. This mode of inclusion depends on the existence of a major programme of curriculum revision. It may be that revisions are taking place in only one subject, such as science. In these cases, it will be necessary to develop units for the other courses not being revised (see 3 above).

5. **Infusion into existing content.** The principle underlying this mode of inclusion is that population education concepts and data can be introduced into the normal process of instruction throughout the curriculum without having to develop separate courses or new units. This task, however, must be tackled by people who have a thorough understanding of the relationship between population education and other content areas. They have to identify the aspects of population education that could be most appropriately introduced at various points and decide how to insert them. The results then have to be transmitted to teachers in all fields, through teaching notes or other appropriate means.

Another and perhaps less satisfactory method is to make teachers more aware of population education content and instruct them how to introduce it where and when they consider it relevant. However, it is probably unrealistic to assume that teachers will seek these opportunities with uniform interest and efficiency since the priorities they perceive will differ greatly from individual to individual and may be subject to change.

6. **Special ancillary arrangements.** Another way of introducing population education is by using special events or activities which are under the control of the school system but outside the regular class structure. These events may be exhibits, films, debates or special day or week-end seminars during which instruction is focused on population education topics and displays. This pattern has the advantage of presenting population issues in a clear and concise manner and calls for a relatively small expenditure of time and money.

There are possible variations within any of these methods and several can be used in national population education programmes. Deciding which mode to use is a part of pedagogical strategy but it also involves many other considerations. This will become clearer when discussing some of the other basic decisions about programme structure.

**Level(s) at which population education is to be included**

So far, most programmes have chosen one of the following options in deciding the levels at which population education will be included in the school curriculum:

1. Introducing population education from grade 1 through all primary and secondary school grades.
2. Introducing it from grade 3 or 4 through all higher grades.
3. Introducing it in only the upper levels of primary or secondary grades.
4. Introducing it in the terminal grades of each stage of schooling.

Countries which have introduced population education in the primary grades believe that, as the largest enrolments are in these grades, population education should be introduced early to reach the greatest number of students. Choosing the grade at which to begin is not easy. Grade 1 normally has the highest enrolment but the age, experience and ability to understand of the students impose limitations on what may be attempted. Introducing population education at the third or fourth grades excludes those who have already dropped out of school, although those who remain would benefit from a greater population education content.

A country that begins population education instruction at the end of primary school and concentrates on the secondary level may do so because its rate of attrition is low. Or it may be that, although the rate of attrition is high, it is planned to reach students who have dropped out by means of out-of-school programmes.

When population education is included only in the terminal grades, there is a need to include more content than when it is included in a wide range of grades. In that case, the infusion approach may not lend itself to the incorporation of as much content as is desired, and mini-courses could be used if the terminal pattern is to be adopted.

**Degree of standardization of content**

The content of a national programme may be in essentially standardized form or some of it may have been devised for one or more sub-national, geographic or cultural groups. In addition, a difference in content for urban and rural groups is relevant to most countries. The Population Education Programme of the Philippines, for example, has paid attention to the special needs of a religious/cultural minority, the Muslims of Mindanao. In Chile, as mentioned in Chapter Five, the proposed population education project takes account of major
geographical differences - the arid northern region, the sub-tropical central region and the sub-antarctic southern region, with the socio-economic differences.

Decisions made to develop distinctive content for special groups have significant implications for staging, investment in curriculum development, research and evaluation, and administrative costs.

### Time frame and resources allocation for population education

As already stated in Chapter Five dealing with planning of population education, the first estimates of time for programme execution - generally from three to five years - were mostly optimistic, and it was later realized that projects required a longer period to complete their introductory activities. When population content is being introduced as part of general educational reform, the time frame for its introduction will of course depend upon the timing of the general curriculum revision.

Innovation activities are usually viewed as a cost outside the existing educational budget. The options for programme development are strongly influenced by the availability of special funds, from internal or external sources - and the amount of these resources is a major factor in many decisions concerning the introduction of population education. Generally speaking, the major costs of establishing such a programme come during the initial development period. Once it has been institutionalized, annual costs become minimal. Up-dating or revising content and incorporating new insights are then part of the normal process of a country's curriculum revision.

### PERSONNEL TRAINING FOR POPULATION EDUCATION

Two broad categories of persons who need training for population education programme development are:

- Professional personnel responsible for designing curricula and instructional materials, developing appropriate methodologies, providing training for teachers and undertaking research and evaluation and programme leaders and educational policy-makers.

- Teachers for the population education programmes.

**Professional/Leadership training**

From experience of programmes so far, it appears that persons in the first category usually require intensive preparation in short courses or seminars. The planning and implementation of this training is normally undertaken by a small team from inside and/or outside the country. This team is generally composed of people with previous experience in population education, together with specialists in substantive fields - such as demography, sociology and public health - which contribute to the knowledge base for population education. Reference may be made, for example, to relevant publications from the Philippines and Thailand. (1)

**Teacher training**

The nature and duration of the pre-service or in-service training required by prospective or practising teachers cannot be accurately determined. The scope and character of the population education programme and its place within the curriculum will influence the training process. However, it is possible to identify in general terms the basic elements which might be incorporated in most pre-service and in-service training programmes for teachers.

A background of knowledge drawn from population studies is a fundamental prerequisite. This background must extend beyond the requirements of the curriculum to enable teachers to understand population issues at all levels and to grasp the impact these issues have on the lives of the learners and on their communities, societies and nation. The knowledge should provide teachers and prospective teachers not only with factual content but also with the opportunity to clarify their own population-related attitudes and values.

Teachers being trained should be given opportunity to:

1. Formulate simple performance objectives.
2. Design content and activities to achieve these objectives.
3. Translate curriculum topics (themes or units) into lesson planning.
4. Construct evaluation measures to find out whether the content and activities have achieved their objectives.
5. Develop materials which they can use in their classrooms. The newness of population education programmes means that, in most instances, the number of books and illustrative materials

(1) See, for example:

- Unesco Regional Office for Education in Asia, Bangkok (Thailand), Final Report of the consultative seminar on training needs in population education programmes (Chiangmai, 6-13 January 1975) and of the technical group on training courses and materials for population education programmes, Bangkok, 14-21 January 1975; Training needs in population education programmes, Bangkok 1975;
is limited. Training courses can provide an opportunity for the designing of useful and low-cost printed and visual aids. (1)

6. Experience a range of teaching methods as used by their trainers, observe these methods as used by practising teachers in classrooms and practise them themselves in many different real-life situations. Micro-teaching and simulations (where teachers create among themselves teaching/learning situations which are replicas of those in the classroom) are training processes which enable a variety of methods to be practised.

The introduction or infusion of any new component into existing school curricula poses a specific training difficulty. Where teacher training is provided only in pre-service courses, a long time lag must be anticipated before the new programmes have mass effect. In-service training for existing teachers on any mass scale also raises problems, for these programmes are expensive to mount and difficult to organize, particularly where human and physical resources are scarce.

Existing programmes have generally attempted a middle course, through the in-service training of selected teacher-educators. The vital aspect of this approach is that these teachers are given the role of "on-the-job trainers". Training dissemination is a far-from-easy process, and attention should be given to procedures in which teachers who are already trained can educate their colleagues.

Universities

The courses of study usually provided at universities in non-professional areas may be rated according to how much attention they give to population content in three categories. In the first, courses have a primary focus on population content; this is usually indicated by the title of the course: Introductory Demography, Issues in Population, Population Problems. These courses are often directed at persons who may eventually specialize in this area. The second includes a larger group of courses which do not give population content a primary focus but which incorporate it in the framework of the particular discipline. The title of the course does not necessarily indicate whether population content is incorporated and the detailed course outline has to be looked at to ascertain the nature and emphasis of this content. Courses of this type generally belong to such disciplines as biology, geography, economics and sociology. (2) Finally, an even greater number of courses do not have any population content at all.

Universities, in examining the degree of population emphasis in courses belonging to the first two categories, will undoubtedly find ways of strengthening their orientation and content so as to focus, for example, on the interrelationships between population variables and other variables associated with social, economic and cultural development. In some cases, the necessary knowledge base which will provide this new thrust may already be present; in other cases, gaps may have to be filled by searching through the literature and/or by undertaking further theoretical as well as empirical studies.

An analysis of courses not containing any population content should perhaps be undertaken to ascertain whether such content has been left out because it is considered irrelevant or because of lack of awareness. In the latter case, if a close examination of the objectives and structure of the course shows that population content could be legitimately incorporated, efforts should be made to include it. It should be noted, however, that most university faculty members exert nearly complete control over what they teach. Thus it is difficult or impossible to obtain their co-operation unless they clearly appreciate the relevance of population education content.

In the Republic of Korea, four universities have recently become involved in population education as part of the national programme of the Ministry of Education. Faculty members at the Seoul National University have identified population content for inclusion in a number of courses, namely economic anthropology, home management, family development, family living and housing, child development, social work, Korean history and sociology. Content has also been determined for a series of ten "open" lectures on population issues.

A course entitled "Population and the Future" is being taught at Ewha Women's University, while at the University of Korea a series of special lectures is given to all students. A publication entitled Population Problems was prepared early in 1976. Yonsei University is in the process of introducing a course entitled "Education and Population" in the general graduate school as well as in the graduate school of education.

In the United States, summer institutes have, on the one hand, assisted persons in a wide range of disciplines to add research skills in

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(2) Caldwell, J.C. Australian National University: The teaching of demography in the social sciences. Paper presented at the Unesco colloquy on "Training of social scientists from the Arab States in the application of social sciences methods and techniques related to population issues and problems", Cairo, 25-29 November 1975.
population and demography to those they already possess, and, on the other, have paid particular attention to the development of teaching materials that can be used in a variety of university courses by persons with relatively little population training and background. (1)

One innovative aspect of this activity has been the employment of undergraduate students themselves in developing materials, the best of which have then been reproduced for national distribution. (2) Finally, an occasional journal, Teaching Notes on Population, (3) has been produced as a vehicle of communication, to air problems of teaching at the university level and problems of finding and evaluating new materials.

Of course, the activities described above, involving universities in the Republic of Korea and the United States, concern the teaching of population as part of general education rather than the professional training of population specialists. It is accepted that every university student should benefit from a programme of study which would help him acquire an insight into the impact which population phenomena have on the quality of life; then the appropriate strategies of such a programme have to be developed, within the framework of academic structures and according to the possibilities and constraints of the university itself. The following possibilities were suggested at a meeting held in Bangkok in January 1974:

"Population education could be:
A part of a general education course for all first and/or second-year students;
Incorporated into 'foundation' courses being offered by some institutions;
Included through specialized topics in certain relevant programmes such as psychology, sociology, economics, geography, etc." (4)

In universities where courses of professional training are provided in medicine, law, engineering, agriculture, nursing, education and social work, for example, population education content has both general and specific applicability and value within all such courses. For example, professional courses in education at Yonsei University in the Republic of Korea have included a course on "School and Community" in the pre-service teacher education programme. This course has a very strong component of population education designed to acquaint students with the interaction of population variables in the community and the bearing these variables have upon the provision of schooling.

OTHER TERTIARY LEVEL INSTITUTIONS

In addition to teachers' colleges and universities, most societies possess a wide range of other training institutions at a post-secondary level. Institutions such as colleges of advanced education, polytechnics, technical and industrial training institutes and agricultural colleges frequently offer (in conjunction with specific training programmes) courses in the liberal arts or in "general education". These background or general knowledge courses are designed to provide students with a more mature understanding of their society or culture. Population education has an important contribution to make to such courses, for a knowledge of the causes and consequences of population phenomena is a necessary aspect of understanding social issues.


(2) See, for example: Foreign Area Materials, 60 East 42nd Street, New York, N. Y. 10017.


BIBLIOGRAPHY

Chapter Seven: Implementation of school Programmes


Figure 9
Decision-making in programme implementation

Mode of inclusion

Level(s) where included

Degree of standardization of content

Type of population education programme

Time allocation

Time frame for the introduction of population education

Level of resources to be allocated
GOALS AND SCOPE OF OUT-OF-SCHOOL PROGRAMMES

Problems of goals and objectives

Three issues concerning the goals and objectives of out-of-school programmes of population education appear to require special clarification. It is sometimes argued that out-of-school programmes should persuasively campaign for a particular population-related behaviour expected to improve the quality of individual and collective life. The position taken consistently in this report is that programmes of population education should adopt value-fair stances and should not advocate a specific behaviour, response or action apart from the behaviour involved in problem-solving.

Some confusion has arisen in the past through the use of the term "population education" to describe a number of out-of-school educational programmes which have had quite different goals and objectives and which are simply not those of population education. For example, the term has sometimes been used to describe efforts to inform women about methods of fertility control or health problems associated with frequent births. On other occasions, it has been applied to in-clinic lecture programmes concerning human reproduction and to courses for rural extension workers which deal solely with aspects of human sexuality. Few of these programmes are concerned with the broader social effects of their efforts to inform or persuade, though of course to say that they are not programmes of population education is not to deny their validity or utility.

It has sometimes been suggested that these programmes should concentrate upon family-life issues, the micro-level, rather than upon the broad spectrum of population issues at a national level. This idea is based upon a belief that macro-level matters have little relevance for, and even less interest to, most programme participants whose first concern is for personal and family questions. This view is inadequate for three reasons.

First of all, it confuses the scope of out-of-school population education programmes with strategies for their implementation. The learners situation is an important beginning but cannot be the exclusive focus of the programme, since a major goal of population education concerns the learners' interaction with the collective. Secondly, this view reveals a limited conception of the range of out-of-school programmes. For example, although some of these programmes are designed for groups who have had limited schooling and for non-urban groups, programmes oriented toward policy-makers and national and community opinion leaders are also important aspects of population education. Out-of-school programmes for regional and national planners, media personnel and social and economic administrators must pay attention to the national level in order to illustrate the role of the population dynamic in social and economic planning and development.

Thirdly, this attitude ignores the interrelationship between governmental population policy (where this exists) and efforts to educate people about that policy. This is a particularly vital concern where policy diverges from the established or traditional folk demography of a society.

None of these larger needs diminishes the importance of strategies which use individual, family and community concerns as an initial or even main content base in out-of-school programmes. Such a focus is significant for all (learners, unschooled youth, planners and administrators). To claim,

(1) See, for example, Kline, D. "Education in Family Planning Programs", World Education Reports, (New York, World Education, Inc.) Vol. 1, No. 1, New York, Spring, 1972. p. 3-12.
(2) For a detailed discussion of this position, see Chapter Three.
(3) See Chapter Four for a discussion on "folk demography".
however, that the family-life focus should set the parameters for out-of-school programmes and that these programmes should ignore the interrelation-
ship between local and national concerns - and, with it, the responsibility that the individual has towards the collective - is to take a highly restric-
tive view of the scope of population education.

Status of out-of-school population education programmes

Out-of-school programmes of population education frequently have low "visibility" and are commonly part of other educational programmes with broad developmental concerns. These programmes vary immensely in scope and size, in their locations and in the auspices under which they operate. They range from nationally co-ordinated, semi-governmental rural-development programmes, such as those in Kenya, to group-specific programmes, such as those organized in Singapore for female factory workers. (1)

The number of institutions in any society which might play a role in out-of-school population education is impressive in its length, breadth, auspices and the range of audiences addressed. (2) Figure 10 provides a list of out-of-school organizations in Egypt which already operate in population-related fields. This list gives a good idea of the large reservoir of organizations and activities in which or through which out-of-school population education programmes might be established.

Programmes can in fact now be found in many settings for a wide range of audiences in countries in virtually all parts of the world. The specialized agencies and funding bodies of the United Nations, particularly Unesco, FAO, UNICEF, ILO and UNFPA have, as we already said in Chapter Two, helped to develop and support activities, as have a number of private agencies, such as the International Planned Parenthood Federation (IPPF), World Education, the Colombo Plan and the World Assembly of Youth (WAY).

In the whole context of lifelong education, population education has its role to play. At the heart of this concept is the notion that "education ceases to be identified with a particular period of life which differs from subsequent phases, and is no longer even regarded as a preparation for life: education and life are intimately bound up with one another". (3) Lifelong education is a cumulative process; therefore, out-of-school population education programmes should seek to reach those groups who are initially deprived by the school system, such as unschooled youth and particularly girls, women, the urban poor and isolated rural populations.

These considerations indicate the need for a wide range of different programme inputs, oriented toward several different points in the life cycle and available to different age groups as the demand arises. It is unlikely that any single institution or organization will be able to meet all these needs;
diversity and flexibility in programme development are essential.

Few societies have as yet constructed either the formal, institutional base or the less structured "learning webs" as Illich would advocate necessary for the lifelong education process. (4) If individuals are to make educated decisions about population events, as these events affect themselves and their societies, then appropriate population content must become one of the main concerns of a lifelong educational process. New institutions may be needed to carry such content; old institutions may have to enlarge their functions.

ASPECTS OF PROGRAMME IMPLEMENTATION

One difficulty facing out-of-school programmes is that they often have to operate without a formal institutional base or alternatingly linked to institutions which have other purposes. The problems of attracting an audience, of holding it for any length of time, of assessing its needs, of building relevant content and appropriate methods are not unique to population education. However, out-of-school population education programmes are particularly difficult to implement because;
- They are perceived as controversial, as difficult to dissociate from connotations of "fertility management" or "population control", and as being initiated from the outside arousing suspicion about the motives for their introduction.
- They are not considered necessary because more pressing needs, like food, health and education, are assumed to be unrelated to population matters.

Discussion on the implementation of out-of-school programmes of population education is hereafter divided according to the following considerations:

(2) See, for example, Wadia, A. B., Approaches to Children and Youth through the Formal School System and the Community Structure, I.P.P.F., London, 1971.
Learners and their needs

Setting goals and objectives
Selecting content
Selecting strategies
Selecting teaching methods
Allocating resources
Programme evaluation

All these facets of programme implementation are interrelated and cannot be viewed in isolation.

Learners and their needs

One of the first difficulties which programme organizers face is how to identify prospective learners accurately. The character of the learning group - its nature, its needs and the setting in which it exists - profoundly influences all aspects of programme development and implementation, including the selection of content and methods. An analysis of past and existing out-of-school programmes of population education suggests that, ideally, the following factors are important ingredients for success:

- The homogeneity of the group in terms of socioeconomic status, cultural background, language, religion and customs.
- The extent to which the group has a sense of identity or has been affiliated with an existing organization.
- The perceptions of group members regarding the programme - particularly the effect of programme outcomes on their interests and status.
- The extent to which a common set of population-related needs has been identified.
- The ease with which contact has been made and maintained between the organizers and the learning group.

So far, the following needs have been identified in past out-of-school programming:

1. The need for information. For example, the need to know about housing, employment and living conditions in an urban environment before deciding upon migration, or the need for an educational planner to understand the impact of rapid population growth upon future school enrolments.
2. The need for clarification. For instance, the need to clarify options. In the migration example, clarification may involve the exploration of questions about educational opportunities for urban families. An urban planner might need to explore the implications of possible lines of action to deal with problems of rural-urban migration.
3. The need for legitimacy. To continue with the migration example, learners may require the sanction of some trusted authority, such as parents, religious leaders or headmen to reinforce a decision to migrate. This need is frequently accompanied by the need for group support. Thus, to change the example, high-level planners may need to be assured that proposals are in line with government policy or that they express views shared by their peers.
4. The need to overcome structural and perceptual constraints. The social structure may inhibit or curtail decision-making about migration, for example, if sons are required to provide farm labour or economic security for their ageing parents. Learners may need to overcome myths, fears, taboos or superstitions associated with decisions like the decision to migrate. Health-service planners, on the other hand, may need to see how bureaucratic barriers can be overcome in order to implement a project in a sensitive area of population-related policy, like family planning.

The more successful out-of-school programmes of population education appear to be those which involve the participation of the learners themselves in conceptualizing and recognizing needs. It is however too much to assume that, in all instances, learners can conceptualize their own needs and priorities and accurately perceive the interconnections and repercussions which these needs entail.

Setting goals and objectives

Goals and objectives depend upon the needs of the learners, as hypothesized or assessed by programme developers or as established by the learners themselves, their priorities, their situation regarding life-cycle events and the context in which the learning takes place. The achievement of goals and objectives may be limited by the capacity of the programme to motivate and retain learners, by the quantity and quality of the human and financial resources it can gather and by the methods it uses.

The general goals of population education imply improving learners' appreciation of different value positions and extending their understanding of the alternative futures. However, this improvement must be based upon the learners' degree of interest and maturity and the extent of their past learning. For recent school-leavers, the prime concern may be with marriage. For older, married learners the interest may centre on a place of residence, the family size and old-age security.

The general goals of population education also imply a problem-solving process. In some situations, however, the learners' primary need may be for information. In other cases, the demand

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may be for a critical evaluation of the population-related value systems in the society, of population governmental policies and the way they influence national development. In yet other cases, the need may be for programmes which use understanding and evaluation to stimulate a decision or a behaviour which may involve future action (migration, marriage, etc.).

Selecting content

In out-of-school programmes, the process of selecting knowledge from population studies has generally been less systematic and the items have been placed less in sequence than in school programmes. In general, content has been chosen by virtue of its "problem-oriented" and "need-oriented" nature.

In the majority of out-of-school population education programmes the focus of selected content has been: (i) Population-related events and their repercussions on both the quality of life of the family and on the development of the society; and (ii) Prevaling folk demography and its repercussions on future quality of life.

This concentration on family quality of life and socio-economic development is understandable, for these frameworks have appeal and significance and provide good opportunity for learner motivation, involvement, decision-making and possible action. Getting people to appreciate the relevance of national information is obviously much more difficult, particularly in isolated rural or village communities. However, if the society at large or the macro-level is seen as being the local community, then content relating to population trends or to the national population situation will need to be translated into community terms (such as community birth rates or infant mortality rates). Where explicit national population policies exist, they may provide an opportunity to develop meaningful national-level content.

Contents have usually been chosen for programmes which aim to educate leaders of opinion, mass media personnel and governmental and non-governmental administrators, (1) have been much more nationally oriented and attention has been paid to national-level population trends, the effect of rapid population growth upon the economy and the interrelationships between population phenomena and national social development. Content from family and community levels, however, warrants inclusion in these programmes, if only to reinforce the realization that decisions at upper levels have repercussions upon the welfare of smaller social units.

One of the major problems faced in out-of-school programming concerns the level of knowledge of the educators. In order to broaden the instructors' and leaders' knowledge and understanding, the production of sourcebooks and training manuals appears to be an urgent requirement, as does the development of short courses of educational programmes in population studies in institutions of higher education. (2)

A final problem concerns the relationship between the content of population education and that of other educations, like family life education, nutrition education, health education and family planning education. In this latter case, programme organizers have sometimes been reluctant to include content relating to family planning or human sexuality because this was not (despite an established need) "part of the programme" or a "valid goal of population education". These contentions tend to misread the situation. Where out-of-school learners have consciously decided to limit their fertility and seek to respond with behaviour which is in accordance with that decision, then content concerning human sexuality, reproduction and family planning methods may be entirely appropriate. The only caution that might be needed in including such content concerns the values and situation of the learning group. Some societies are understandably reticent about providing family planning information and/or advice to non-adult or non-married groups.

Selecting strategies

1. Independent versus integrated programmes.

Planners and organizers must weigh the costs and benefits of building up a new organizational structure or using existing ones as vehicles for population education programmes. The freedom to set one's own goals, objectives and timing, which is possible in an independent programme, must be balanced against the time and resources required to motivate a prospective audience and hold its attention in the face of competing activities. Some of the difficulties of independent programming can be avoided, but the need to find and train new people can be time-consuming and frustrating when resources are scarce.

Generalizations concerning the advantages of one strategy over another are hazardous. However, a "plug-in" approach would appear to have advantages particularly where:

(a) Out-of-school population education programmes can be integrated into governmental and non-governmental programmes which have a development orientation (for example,

1. See, for example, Seminars on Population Problems held for Representatives of the Mass Media (Reports for Thailand, Malaysia, Sri Lanka and the Philippines), Unesco Regional Office for Education in Asia, Bangkok, 1974.

2. An attempt to develop such courses has been made in the Philippines: See, for example, Population Education: A Curriculum Guide for Higher Education, op. cit. (see Chapter Two).
agricultural extension or community development projects); or where

(b) Out-of-school population education programmes can be adopted by other institutional structures which are prepared to incorporate content dealing, for example, with human reproduction and family life or migration issues.

Considerable economies can also be achieved through use of plug-in strategies. The major cost becomes the education of the field instructors, the group leaders and the organizers or managers of the host programme.

2. Working with other groups. Many out-of-school programmes in population education have been devised to capitalize upon the administrative structure of already-organized groups that have a stated interest in improving the quality of life. These strategies are based on the recognition that, for example, local administrative units, like boards, councils and co-operatives, can be effective intermediaries or vehicles for the introduction and the initial organization of programmes with a population-related content. (1) With their knowledge of the local situation, their contact with a variety of educational and development projects and their personal influence as opinion leaders, members of these administrative units can be useful collaborators in designing and implementing programmes. In many cases, it is important to involve groups at this level before making contact with a particular educational programme or establishing a new educational group.

It is obvious that training for programme personnel and teaching staff has to be planned when a new programme is established. But this need is frequently ignored or minimized when the decision is made to introduce population education into an already-established educational programme. It is often considered sufficient to acquaint field or educational personnel with new information, on the assumption that they will integrate this information and use it appropriately. If the job is to be done properly, training should be organized around the relationship between population variables and the educators' specialized field. And when field personnel are trained, the same approach should be used towards them as the one they will be expected to use towards students in the educational programme. The methods used by teachers are strongly influenced by the methods used by their trainers; it seems reasonable to assume that the behaviour of out-of-school leaders is also subject to the same influence.

Finally, training should include time for practice in communicating the new information and in using new methods, even if only in role-playing sessions with the other trainees. This general need is especially true for people who will be talking about life-cycle events and population for the first time. Since these are sometimes controversial subjects, the confidence which comes from practice is important.

At the same time, a shorter "training course" for other programme personnel can pay different dividends. It may be difficult for educators to feel that an area is important if their superiors are not aware of it. They may also find it difficult to put their training into practice unless the other programme personnel (such as ministry administrators) know what they are trying to do and why. Thus introducing population education should involve an exercise in familiarization throughout the organization.

3. Working with media. Throughout this report education is looked at as an interactive process between the individuals in a learning group and the group leader. Mass media can be used within educational settings and can play an important role in population learning but as viewed here they are not a substitute for the group process. Economic, linguistic and geographical barriers limit the scope of media coverage, and media dissemination from a national source may often be insensitive to minority groups or to local needs and feelings.

In the informal education process, the mass media have a definite function. Radio, television, newspapers and magazines in many societies can assist in creating "population awareness", in providing information about population issues and problems and in setting the motivational stage for more organized kinds of education. (2) The mass media have been used, through listening groups and reading centres, to provide focal points for out-of-school population education programmes. In addition, they have been used to help field personnel reinforce content previously taught and learned. Increasingly, educators are becoming aware that there are ways of reaching rural groups which do not involve the expense and the possible disadvantages of the national media. At a sub-national or local level, many societies have folk media (traveling puppet shows, theatres, story-tellers) which are able to reach local people in their own language

(1) Unesco, ILO and FAO seminars carefully examine these possibilities. See, for example, Unesco Regional Office for Education in Asia, Bangkok: Population Education for Out-of-School Youth and Adults. Report of a consultative Seminar on Out-of-School Educational Programmes in Population Education, Bangkok, 1975.

(2) See, for example Blake, R.B., Communications Research and Family Planning, Unesco Regional Office for Education in Asia, Bangkok, 1972. (Mimeo).
and their own frame of reference. (1) A field educator may find that a tape prepared in the local language and a cassette tape recorder are more useful teaching tools than a national radio broadcast. Such simple implements avoid the waste of the more sophisticated and expensive ones and eliminate the financial drain of high maintenance and repair costs. Emphasizing the use of small-scale aids also makes it possible to involve local educators in the development of these materials and thus give a specific local focus to nationally-formulated goals and objectives.

**Selecting teaching methods**

Out-of-school educational programmes, including those in population, are usually oriented towards developing skills and abilities which enable learners to achieve particular objectives or to solve particular problems. This is true for new literates as well as for national elites. Evaluation, decision-making and action are the basic goals of population education programmes. The implications for the selection of teaching/learning methods are fourfold:

1. The programme's organization focuses on the problem-solving and decision-making processes rather than on the internal logic of an area of knowledge or even on an item of information. With this approach, the problem being considered determines the type and the thoroughness of coverage of the information needed by the learner. The setting (youth clubs, co-operatives, churches, etc.) in which the problem is discussed also determines the selection of teaching/learning methods.

2. The primary content of the programme should concern problems of immediate importance to each group of learners. For example, a significant problem facing some East African groups of women is how to supplement the subsistence economy with cash crops. Given this topic as the focus of concern, links with population and family-life issues can readily be found.

3. The needs, perceptions and goals of the learners should become part of the course content. A basic step in problem-solving and decision-making is to clarify, within the learning group, the learners' ideas, feelings and impressions. Before new information is provided, the leader needs to find out not only what the learners already know, so that the information is presented at the right level, but also their attitudes and values so that these do not block or distort reception of new ideas. The information also needs to be placed in the setting.

4. The learning group itself must engage in the activity of planning and decision-making: the posing of problems, the analysing of information, the drawing of inferences and the weighing of arguments are important skills in decision-making, and the opportunity to develop them should also exist within the programme. (2)

An illustration of the large number of out-of-school population education teaching-learning situations has been given by Griffith's (3) who categorized them into a framework which extends from independent study through tutorial teaching and various group learning situations to forms of mass education. What is significant about Griffith's listing is that very few of his suggested strategies involve traditional formal approaches based upon structured groups.

The fact that the content of population education is drawn from a variety of fields raises the problem for the out-of-school population educator of providing a range of information inputs, building cumulatively, in a manner which does not interrupt the emphasis upon problem-solving within the learning group. It is important that curriculum developers resist the temptation to include topic after topic in the educational programme and thereby to preclude the possibility of experiencing the process of problem-solving. Content and process are of equal importance.

Learners in out-of-school population education programmes are generally unschooled youths and adults who have already had experience of assuming adult roles and responsibilities and do not want to be relegated to the status of schoolchildren. Traditional classroom methods discourage learners' participation and thus deny them access to the variety of experiences brought in by each member of the learning group. Such methods also tend to encourage learner dependence and to perpetuate a tendency to wait for answers rather than to develop solutions at the local level. (4) Because population education concerns events which are considered personal and private in many cultures, methods also need to be designed to encourage an effective and positive group dynamic.

**Allocating resources**

Each organizational structure (international, national, governmental, and non-governmental, regional and local) tends to possess its own formulae for providing resources, which are listed here in three broad categories:

(1) See, for example, Vorapipatana, K., "The Khit-Pen Man", World Education Reports, (New York, World Education Inc.) No. 8, January 1975.

(2) For a more systematic view of participatory strategies, see, for example, Freire, P., op. cit. (See Chapter Six).


(4) See, for example, Sing, K.N., et al. The Indian Youth, Somaiya Publications, Bombay, 1971.
Organizational: physical and material facilities;
Financial: funds required for facilities, materials and personnel (capital and operating costs).
Human: personnel with requisite skills, qualification or experience. (1)

In most programmes, all three kinds of resources are generally limited. Unusual as it may seem, the most severe constraints in many programmes do not concern either facilities, materials or finance but rather the adequate development and deployment of human resources. For example, the costs of providing physical facilities for an educational programme can be minimized by using private homes and community or religious centres; expenditure on expensive visual aids, such as film projectors or tape recorders, can be avoided by using folk media, (2) while the substitution of human resources is a much more difficult process. Out-of-school programmes generally require a considerable degree of expertise in their planning, management and co-ordination. Where this expertise is not available, time and effort must be expended in training. There is a tendency, however, to over-emphasize the level of skills required; some out-of-school population education projects have used mainly semi-literate human resources with a minimum of on-the-job or in-service training.

A review of current out-of-school population education programmes suggests that a major problem is not only the availability of resources but also poor management of them. Some programmes have experienced difficulty because they lacked people with a knowledge of budgetary co-ordination (some parts of a budget being underspent, while others were overspent). In other cases there has been a lack of integrated planning. Materials have been ordered which proved unusable (like film projectors without a battery power supply in remote rural areas); or equipment has been purchased without adequate provision for maintenance and repair. A detailed plan of operations and a carefully prepared budget are vital tools for successful resource planning.

Programme evaluation

Out-of-school educational programmes have seldom been adequately evaluated. Most of the neglect of evaluation may be due to the belief that evaluation occurs at the end of a programme and has to be thought about and planned for only at that time. And there are often further barriers to effective programme measurement. (3)

In fact, evaluation is an integral part of the planning and implementation of out-of-school programmes of population education.

1. Evaluation as an integral part of programme planning. It is extremely difficult to evaluate generalized goals. As stated in Chapter Three, it is necessary in most programme planning to break down general goals into specific objectives - ideally as performance objectives. For example, a general goal of an out-of-school population education programme may be:

To provide teachers in the project with a knowledge and understanding of population issues as they affect local quality of life ...

In the programme's operational plan, this goal may be transformed into specific objectives, such as, for example:

1. To recruit, through co-option by the organizing committee, three teachers from each of the four regions in the province;
2. To provide transportation for these trainees to attend a given centre and to give them accommodation and daily subsistence allowance for two months residence;
3. To engage trainees in the following in-service courses:
   (a) local demography - three hours per week;
   (b) teaching methodologies - four hours per week, etc.
4. To supply trainees with background materials incorporating the following basic population concepts:
   (a) rate of population growth;
   (b) population age structure, etc.
5. To evaluate trainees' understanding of these concepts through:
   (a) written examination;
   (b) a practical exercise to teach these concepts to a group.

And the list might go on. These operational objectives not only help shape the programme, they also provide clear "steps" which can be evaluated along the way.

Apart from the problems of measuring behaviour acknowledged at the end of Chapter Six, it should be remembered that any final evaluation of the effects of an educational programme on the knowledge, attitudes and values of learners depends on knowing about these dimensions as and when the learners enter the programme, so that comparison can be made.

(1) See, for example, "Turkish Program Completes First Phase", World Education Reports, (New York, World Education Inc.) Vol. II, No.1, 1973.
(2) See, for example, Unesco: Interregional Seminar-cum-Workshop, Integrated use of folk media and mass media in family planning communication, New Delhi, 1974.
(3) See Chapters Five and Six.
2. Evaluation as an integral part of programme implementation. One of the most important contributions that evaluation can make is to provide the feedback that enables objectives to be re-formulated when this is made necessary by the learners' needs and the context of the programme. This kind of formative evaluation is a systematic process of information-sharing between all levels of the programme, which provides an opportunity for improved communication, some degree of staff training and participatory planning as part of the same exercise. From this it follows that evaluation mitigates against the tendency to "keep on going" from day to day and from activity to activity and gives an opportunity for group reflection and self-examination. This process may take the form of staff, district, provincial or national meetings, workshops, retreats or seminars. It probably calls for a certain mixing of levels, with attention having to be paid to the problem of representation and dissemination of information.

The decision to include evaluation activities as part of the execution of an educational programme raises the question of whether they require an outside expert. In this sense, "outside" means anyone who is not himself part of the educational programme, and does not necessarily mean a foreign adviser. There are several conflicting considerations here. One is that the expert who is given the special and sole responsibility of evaluation will have the necessary time and skills; in fact, the presence of such an "outsider" is often necessary to encourage communication when many levels of personnel are combined and to provide a greater degree of objectivity.

On the other hand, to the extent that the "outsider" tends to act for rather than with the other members of the staff, he diminishes their participation, and hence their understanding of and commitment to review and re-formulation. When the evaluator collects the information, rather than designing ways for the programme staff themselves to collect it, or when he processes and shapes it, rather than assisting the programme staff to conduct their own direct examination, he tends to exclude others from participating. And when he analyses and makes recommendations, rather than developing a format for direct exchange and decision-making, his actions tend to encourage the idea that evaluation is of interest and benefit only to himself rather than to all. He has the problem of communicating to others any steps he takes himself. Sometimes, too, the "outsider" is a specialist who has additional goals of publication which may not contribute directly to the needs of the programme.

3. Evaluation as final assessment. Final evaluation is an attempt to discover to what extent the programme's educational goals have been achieved. Unlike formative evaluation, which is frequently ignored, summative or final evaluation has received a great deal of attention. Funding organizations and, to a lesser extent, sponsoring organizations have usually made some form of final evaluation a condition of their large-scale support for a programme.

Serious methodological difficulties are raised in the measurement of future behaviour and this has provoked lengthy discussion of the "time horizon". An evaluator looking for behaviour change is faced with the difficulty of locating learners, assessing the effects of intervening variables and sorting out the degree of correspondence between behaviour and initial learning.

These difficulties, unfortunately, have tended to divert attention away from programme improvement and toward the methodology of evaluation. Although it is important and of interest in its own right, this preoccupation with technique does increasingly take evaluation activity away from the real concerns and needs of programme planners and educators. The point we made previously about formative evaluation also applies to summative evaluation: the purpose of evaluation is to encourage more accurate and skillful thinking about the educational programme; therefore the more that programme personnel are involved in the process, the greater is the likelihood that they will in fact absorb and be able to use the information from evaluation.

There seem to be two types of information that can be provided by final evaluation. The first covers the comprehension and the retention of information and the development of problem-solving and decision-making skills, and even how these assets are used during the educational programme. The second would be an attempt to follow up learners later, not to look for the presence or absence of a particular behaviour but to examine the whole fabric of family and community opportunities and limitations as they affect the learner - in order to enrich and localize the future input of population education programmes.

There is, however, a place for expert technical advice and assistance in final evaluation. Many programmes are "ongoing", with learners entering and terminating as they wish. Systematic "before and after" studies are difficult under these conditions, even with courses of fixed duration, because of sporadic attendance and high drop-out rates. In addition to these problems, which are shared by the evaluators of all out-of-school educational programmes, there is the special fact inherent in population education programmes: their content and material are usually part of a broader educational programme. Therefore, evaluations have to be adjusted for variations in timing and systematization. Furthermore, it is often not easy

(1) See, for example, Kline, D., op. cit. (see Chapter Six).
to find "control groups" for comparison, since many out-of-school programmes are loosely structured.

4. Evaluation dissemination. A fourth issue in the evaluation of out-of-school population education relates to the dissemination of formative and summative results, both to those people involved in the programme and to professionals who have similar interests. This subject requires further attention. The value of disseminating evaluation results must be balanced against the knowledge that a process which is effective in one setting cannot always be readily translated into another - similarly, disappointing results in one programme do not necessarily imply comparable results in other settings. There appears to be much to commend the strategy of programme dissemination in which members of interested communities go to work for a while in ongoing programmes in close association with their personnel: upon return to their communities, they can develop an appropriate programme, based on this practical experience but adapted to local needs.

BIBLIOGRAPHY

Chapter Eight: Implementation of out-of-school programmes


List of out-of-school agencies in Egypt which have interest in population-related matters (1)

1. The Egyptian Family Planning Association and its twenty-two Branch Associations in different provinces
2. The Labour Union
3. The Journalists Syndicate
4. The Agricultural Co-operative Union
5. The Women's Secretariat of the Arab Socialist Political Party and its committees throughout the country.
6. Youth Clubs
7. The mass media
8. Health and welfare institutions under the auspices of the Ministries of Health and Social Affairs
9. Health and welfare and community development programmes under the Ministries of Agriculture, Land Reclamation and Resettlement
10. Culture Centres, sponsored by the Ministry of Culture
11. Mobile educational teams of the Ministries of Information and Health
12. The teachers Syndicate
13. The Mosques sponsored by the Ministry of Wakf* and Religious Affairs
14. Professional organizations or societies including the Medical Association, Population Studies Association, Social Research Association, Women Associations, etc.
15. Literacy and adult education programmes sponsored by the Ministries of Social Affairs, Education, Industry and the Armed Forces
16. The Planning Institute

(1) List compiled by Shanawany, H., former Regional Adviser in Population Education (Arab States), (January 1976).

(*) Public endowment for charitable or religious purposes (estate in Mortmain).
Chapter IX
Present needs and future developments

INTRODUCTION

What are the most important needs and the probable directions of population education in the years to come? Throughout this discussion of present trends and future needs, it must be borne in mind that this report was conceived as part of a continuing process of stocktaking and assessment; developments in the years ahead will bring changes in concepts and methods which, in turn, will raise new questions which cannot be anticipated today. The value of the present assessment may lie not so much in its finality as in the stimulus it will give to those people who are responsible for the development and support of population education programmes, whether in school or out-of-school, to evolve alternative futures from different standpoints.

Today’s needs and priorities are not everywhere the same. Some countries and regions have made greater progress with programme development than have others; different countries and regions perceive population issues in different ways. Inevitably, different modes and strategies of development will characterize the future as they have the past.

PRESENT NEEDS

The need for human resources development

There is a serious lack of the skilled and experienced personnel needed to develop and implement programmes of population education - whether they be curriculum developers, teacher-educators or programme developers and directors. The required human resources will increasingly be locally recruited and locally trained in the next few years. The difficulty, however, is that, in a large number of cases, there is also a dearth of specialists capable of undertaking this task.

Although there are universities and colleges of advanced education which have the requisite cross-disciplinary approach and interest in population education, they are mostly located in the industrialized world. To suggest that these institutions should be used as training centres for personnel in the developing world, where most programme activity now exists, would be to run the risk of subjecting specialists from the developing world to courses of study which are not necessarily related to their needs. Instead, as a more appropriate alternative action, it should be recommended that international agencies operating in the population field strengthen the practical value of tertiary-level institutions in the developing world by helping them, for instance, to establish courses which deal specifically with population education and its programme development. Another possibility would be to strengthen the mobile teams recently set up by various specialized agencies of the United Nations at the regional level in order to train the required manpower in concentrated short courses.

A further need concerns the exchange of experience, communication and co-operation between specialists working at theoretical level and those working at field level, to link theory and practice in a more concrete way. An international network of population educators (or an international association) could help to meet this need for communication. This network could begin by correspondence, followed later by the dissemination of documents, trend papers and a newsletter or journal.

The need for new materials

In the next few years, the production of materials to provide the knowledge base in population studies, for the use of teacher trainers and curriculum developers, will require continued effort. But these materials are only a first step. A logical next step is for them to be translated into forms that can more readily be used by teachers and learners. Handbooks of suggestions for teachers that incorporate units of study, ideas about
methods, visual aids and learning activities - selected from experience - are but one possibility. Such materials should be written at the national level. It is equally important to prepare materials (also at national or sub-national level) for the learners themselves. In learning systems where considerable reliance is placed upon the written word and where the level of teacher education has not been high, this kind of material is particularly necessary in actual instruction and also in teacher-training.

The development of teaching/learning materials could be stimulated by organizing regional and national workshops of curriculum developers and producers of materials (writers, publishers and media personnel). Funding and specialized agencies should be responsive to the need to provide specific aid to the developing nations for the production of these materials.

The need for continued conceptual development

Most of the concepts and theories of population education have been appropriated from a wide range of disciplines. The question now is whether this pragmatic approach has provided population education with an adequate, consistent and sufficiently rigorous conceptual framework.

Many educators argue that the pragmatic and eclectic approach is still necessary, because of the embryonic nature of population education, because of the comparative lack of knowledge about the effectiveness of present conceptualizations and because a more rigid framework might restrict innovation. Others argue to the contrary. In general, this latter group is critical of the conceptual status of population education on the following grounds:
(a) The present conceptualization of population education is limited and lacks an overall integrating framework. The prevailing stress upon the interrelationships between population processes and quality-of-life outcomes should be placed within a wider context which will explain how social, economic and political forces generate these interrelationships; otherwise, population education provides only a fragmentary understanding of reality and fails to make people aware of the effect which basic social conditions (like, for example, the lack of distributive justice) can have on population-related issues.
(b) Without an overall integration framework, population education will be unable to analyze coherently and consistently the causes and consequences of population phenomena in their social-political and cultural contexts.

This group further believes that population education can improve its conceptual development by:
(a) Continuing to collect data about the interrelationships between the population dynamic and cultural, social, economic and political processes, at both small group and national levels.
(b) Constructing a range of rigorous models which affect these interrelationships, for countries which have different political systems and which are at different stages of socio-economic development.
(c) Formulating typologies of socio-economic development which will contain these models in an overall explanatory framework.

It seems likely that scholars working at the interface of population and development - where the need for integrative theory and typologies is pressing - will be the first to build up such theoretical structures. And once the structures have been developed, it will be the task of population educators to assess their theoretical positions in the light of the new interpretations and to modify their content and methodologies accordingly. This does not mean that population educators themselves should not be involved in the search for better integration or more coherent theory. It is simply a recognition of the fact that new disciplinary and interdisciplinary structures have generally been devised by people who work at the theoretical level within or between disciplines. It is the educators who have usually applied the theory.

There is a more immediate need, however, for population education to gain new perspectives from a range of related fields. An international symposium of specialists might be one way of fostering new development models and strategies.

The need for continued research

As already emphasized in Chapter Six, the lack of a research base has been a major barrier to the conceptualization and methodological development of population education. Three kinds of research are urgently needed if programme development is to proceed in a more systematic manner.

The first type is what is here termed synthetic research. Synthetic research involves descriptive and analytical surveys of literature which can contribute to population education. Its purposes are:
1. To identify relevant inputs from other fields (such as sociology or educational psychology);
2. To establish what is known about population-related concepts and learnings (in general and in particular contexts) and to detect gaps for further research on these issues.
3. To avoid duplication and waste of scarce research resources.

For example, studies on the processes of child growth and development are under way. Others are devoted to the study of the cultural and socio-economic factors which affect the learning processes of children and adults. This literature represents fertile ground for analytical surveys which could establish many of the contextual factors that have to be taken into account in developing both school and out-of-school population education programmes.

A second type of research, of equal urgency, is termed basic research. This includes investigations that might establish, for example, the nature of folk demographies and how concepts of population-related life-cycle events are acquired by children and adults, or investigations designed to ascertain the forces which shape population behaviour at the family level. This type of research is clearly specific to a society or a community but could very well lead to a cross-cultural synthesis which will help interested researchers develop parameters of projected surveys and devise protocols in order to standardize procedures. The synthetic character of this work may be related to the first type of research previously mentioned.

The third type, which is a continuing high priority, is action-oriented or programme research i.e. related directly to the implementation of a population education programme. As noted in Chapter Six, information is generally lacking about the comparative efficacy of different strategies devised to reach particular audiences and the comparative effectiveness of different teaching/learning methods. It is clear that present understanding of the barriers and limitations in a particular setting is inadequate. Two methodological questions seem of special importance here. First: is it possible to reach the goal of conscious and informed decision-making by using methods which are essentially directive, passive and non-participatory, or does this goal require the use of methods which are learner-centred, active and participatory?

The second question concerns the development of group-oriented methods of teaching and learning. In view of the importance of the learning group in population education and of the community in social and economic development, it seems necessary to identify those methods of motivating and organizing learning groups which can best foster group interaction and collective decision-making. In some nations, such as the United Republic of Tanzania and China, much of the educational process is planned and initiated by a collective. The efficacy of collective decision-making must be investigated in other social structures as well. There is an urgent need, in a range of settings, for investigations to be undertaken to compare these methods and also to ascertain the extent to which participatory methods can be effectively implemented.

A most pressing need in the area of programme research is for evaluation, a subject discussed at some length in Chapter Eight: formative, in order to feed back results into programme development; and summative to evaluate efficiency. Without better formative evaluation, there is high risk of failure in meeting current programme goals. And without improved, summative evaluation, to register efficiency or its lack in a programme, we may not know ten years hence how best to design programmes for particular settings. Since some regions are short of people who have the necessary research background and experience, international agencies involved in population education programming should consider ways in which local personnel could be trained to undertake this research and should encourage the development of research techniques and methods.

It is important here to underline another research deficiency. Much of the research undertaken so far (both basic and action-oriented) has failed to involve intimately the people who were the subjects of research. There is much to gain if research can be planned and implemented in conjunction with all who are involved in a programme - planners, teachers and learners. As the International Council for Adult Education has pointed out: "The research process should be seen as part of a total educational experience which serves to establish community needs ... as a dialogue over time and not as a static picture ... and (as a means of mobilising) human resources for the solution of social problems."(1)

The need for integration

Until now, the first task in the development of population education has been to establish a content and to fashion an educational programme which would have a relevance and an integrity of its own. This effort appears likely to continue in the next decade as programmes try to become more firmly institutionalized. At the same time, however, the need will undoubtedly be felt to integrate population education and its programmes in a variety of ways into other settings.

At present, four types of integration are needed:

1. Interdisciplinary integration of the information, concepts and theories derived from a greater variety of population-related disciplines and professional fields.
2. Contextual integration of population education content into broader and new meaningful frameworks.
3. Curriculum integration of the goals and contents of population education with other educations which seek to analyse and to have an impact

upon social, political, economic, cultural and physical environments in order to improve human well-being and quality of life.

4. Programme integration, within the out-of-school sector, of the resources and implementation strategies of population education programmes with other relevant educational and developmental programmes.

Interdisciplinary integration. It would be fair to say that, so far, the knowledge base for population education has been developed in a multidisciplinary rather than an interdisciplinary manner. (1) There has been considerable dialogue between demographers and educators but little interaction between these experts and, for example, micro-level sociologists, psychologists and cultural anthropologists. In the same way, the people who are involved in the development of population studies and population education programmes have had only slight contact with scholars working in the fields of medicine, law, theology, economics and politics.

A completely interdisciplinary approach may not be feasible at this point of development. However, it is clear that the future conceptual and methodological advance of population education will depend, at least in part, upon the extent to which the full range of available information, concepts and theories is systematically incorporated and integrated. A particularly important benefit of this integration might be to clarify the interrelationships between population-related processes at the macro- and micro-levels.

Contextual integration. To date, in the development of population education programmes, the tendency has been to view population education within a framework of social and economic development or within a framework which stresses individual or collective quality of life. Consideration should now be given to the possibility of integrating the content of population education into other meaningful frameworks which so far have been little used. To give just two examples:

A new framework could well be the concept of the new international economic and social order. This concept includes the assertion that the world's resources and wealth need to be redistributed and it also involves a number of population issues. Such a framework could provide an opportunity to examine the associated ethical and moral questions raised by a population policy - or lack of a policy - in various nations and regions.

The second example is that of human rights. Very little attention has been given to this area as a framework for organizing the content of population education. What human rights are threatened by coercive (anti-natalist or pro-natalist) population policies? Do social settings exist where the well-being of the community - and even its survival - depends upon the restriction of certain basic human rights? Human rights considerations are particularly relevant to the goals of population education programmes, especially the goals of conscious and informed decision-making and action which are based upon the freedom of individual and collective choice and action.

Population education scholars could be called upon to elucidate the value of a range of alternative frameworks.

Curriculum integration. Besides the current efforts to integrate population education in the school curriculum, the need for a more generalized, systematic and meaningful integration of goals, objectives and contents of other educational fields, such as development education, environmental education and sex and family life education, should be stressed. In effect, they appear to possess three common characteristics.

- A high interest for and relevance to the present and future lives of learners.
- A general goal: the improvement of the quality of life for the individual and the collective.
- An interest in the process of informed and conscious decision-making.

By its very mandate, it would seem that Unesco should be the first to encourage efforts towards curriculum integration since this Organization is responsible for all these new educations both in and out of school. The setting up of a permanent working group of consultants and experts would be a possible strategy for initiating dialogue and promoting such integration.

This does not imply in any way that what is needed is simply an "amalgamation" or "incorporation" of population education matters into other educational efforts or vice-versa. Population education can be conceptually and methodologically

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(1) Multidisciplinary is a term generally used to describe the juxtaposition of various disciplines which most often have "no apparent connexion between them". Interdisciplinary usually connotes "the interaction among two or more different disciplines. This interaction may range from simple communication of ideas to the mutual integration of organizing concepts, methodology, procedures, epistemology, terminology and data" across a "fairly large field". "An interdisciplinary group consists of persons trained in different fields of knowledge (disciplines), with different concepts, methods, data and terms, organized into a common effort on a common problem with continuous intercommunication among the participants from the different disciplines." Organisation for Economic Co-operation and Development (OECD)/Centre for Educational Research and Innovation (CERI). Interdisciplinarity, problems of teaching and research in universities, OECD Paris, 1972, p.25-6.
The need for decentralization and dissemination

Programme integration within the out-of-school sector. Very real benefits can come from programme integration. Where different programme components can mutually strengthen an understanding of factors contributing to an improved quality of life, integration makes sense - for quality of life itself is based on multiple interrelationships.

Programmes of co-operative rural and community development, industrial training and rural extension, literacy and adult education are but some of the programmes which might be integrated with population education. Many of these programmes, especially those for maternal and child health, public welfare and educational re-training, already possess a population component or components which have a population focus. Furthermore, duplication of effort, waste of scarce resources and skills and the administrative burden of multiple programming can thus be avoided. It is appropriate to note, however, that, even at an international level, there is little co-ordination of effort between agencies and sometimes too little cooperation between the agencies and non-governmental organizations working toward the same ends.

Population education programmes also need to be more firmly integrated into the process of lifelong education. Here the form of closer integration which is required, but presently lacking, is that between school and out-of-school programming. This must be planned well in advance, to avoid two dangers. First, some organizers may take the existence of population education in an out-of-school programme in a society as a reason for not including it in the school, and vice-versa. Secondly, the continued separation of school and out-of-school programmes of population education may encourage the emergence of two class-bound educational systems for youth: a school population education for an élite and out-of-school population education for the less-privileged.

The need for decentralization and dissemination

One of the principal differences between school and out-of-school population education programming is that school programmes have tended to be national while out-of-school programmes have tended to be more limited in scope and directed to smaller, more specific audiences. As research increases our understanding of the implementation process, population educators will be able to identify more clearly the most effective planning sequences and the steps involved in implementation. As a result, it may be possible for school projects to be developed in more decentralized ways, thereby making them more suitable for local, family and community

FUTURE TRENDS

A number of trends today suggests that, in the future, population education programmes will be more systematically planned. First, there is a growing body of programme experience which can be capitalized upon and assessed. Secondly, there is a growing awareness of the need for a more systematic and refined approach to programme implementation. Thirdly, the funding agencies are beginning to demand tighter planning to ensure the
attainment of specific objectives and, for example, through cost-benefit analysis, a clear return upon investment.

Increased attention to the planning process will mean a change of attitude in the future. Although it seems unlikely that large-scale national programmes will diminish in significance (particularly in Africa and Latin America), it is reasonable to suppose that there will be greater use of experimental pilot projects in the early stages of programme development. It may well be that future national programmes will begin with necessary background research or pilot activities to test strategy and content before full-scale national implementation is decided.

Another outcome of planning maturity may be the clear identification of planning steps in the implementation process. An understanding of the sequential stages and the time scales involved appears likely to encourage phased programme development, perhaps over longer periods of time. Although it is difficult to gauge the future repercussions of such planning, some national organizers may well decide to introduce programmes into school systems in a more gradual and stable way, through the preservice training of teachers rather than through short-term, in-service training programmes.

Planning and phased implementation will also influence the nature of support offered by funding organizations: for example, there may very likely be support for the initial stages of implementation, initial research, or material development, pilot programmes of teacher education, etc., rather than for all phases of implementation. The corollary of this is that government and local funding sources are likely to be called upon to provide increased support of programme implementation.

More and more nations are adopting explicit population policies which are part of general policies of social and economic development. The existence of such population policies is likely to have a number of consequences for programme development in the sense that they will affect commitment to population education programmes and to the range of institutions through which they operate and have an influence upon the nature of the programme and upon what is taught and learned. Policy is likely, in many cases, to define not only the important population issues but also the extent to which those issues can be modified through the educational process.

In some programmes, there may be less emphasis upon the individual as a decision-maker and more concern for group or collective decision-making, with the aim of increasing the general well-being as defined by policy.

So far, most of the population education planning that has been done has been undertaken by people concerned with programme implementation (educational decision-makers, programme managers and consultants). Within the foreseeable future, planning units (which already exist in a number of countries) will be set up to coordinate and rationalize educational, development or social welfare programmes. In nations where this type of planning prevails, it seems likely that attempts will be made to integrate and link school and out-of-school programmes of population education with other development programmes (agricultural extension, maternal and child care, workers' education and retraining). Even in nations where co-ordination in planning is not currently practised, it is possible to envisage forms of programme integration on the basis of common interest and co-ordination of effort and resources. Particular mention should be made of the future relationship between family planning education and out-of-school education programmes. It is already recognized, in the Asian region particularly, that family planning education for out-of-school youth can no longer focus solely upon problems relating to fertility; other quality-of-life issues and other population events merit attention if these programmes are to have cogency. At the same time, people working in the out-of-school population education field have become increasingly aware of the need to include in their programmes information bearing upon human reproduction, so that learners can act upon decisions taken about family spacing.

A further consequence of planning in some nations may be the recognition of hitherto-unreached under-privileged minority groups. Indeed, in some societies, there may be a need for more decentralized planning in order to adapt programmes to local requirements. Although population education programme development will remain oriented towards the majority, there is evidence that increasing attempts will be made to meet specific group needs (minority linguistic groups, minority ethnic groups, rural-urban migrants and isolated rural groups).

**Toward institutionalization**

The general objectives of programme planning in population education are related to the processes of institutionalization. For school programming, the objective is to achieve planned intervention into an existing institution or set of institutions which have an established educational role. In the out-of-school context, the objective frequently is a search for or the development of an institutional base or framework in which or through which to operate.

1. School. In the immediate future, two problems appear likely to confront programme development. The first concerns the recognition by upper-level decision-makers of the relevance of population education for existing curricula. In the past, international seminars and workshops have been instrumental in involving educational and political decision-makers in implementation. In the future, this strategy may continue to pay dividends, particularly when it is augmented by reviews of progress elsewhere and opportunities to observe
developments in other nations or regions.

The second problem covers a much larger spectrum and concerns the way in which (or the strategies by which) population education is introduced into existing institutions or school systems. Until now, the usual approach has been to infuse population education content into existing courses. In many cases, this has been expensive, involving material preparation in multiple areas and teacher training across a wide range of subject specialities. In some school systems, the approach is shifting towards the use of units of study; in other systems, the merits of a separate course are being investigated.

The levels at which population content will be taught will vary from country to country. The industrialized world appears to favour implementation at secondary and tertiary levels of schooling; in these nations, the majority of students are retained by the schools, many of which are currently looking for studies which are more integrated and relevant to life. However, in most of the developing world, pupil enrolment and retention rates at the primary level are comparatively poor and only a minority of students in many countries reaches secondary school. Therefore, if the majority of young people in many developing nations is to receive some form of population education, it will have to be provided largely through out-of-school settings. This does not mean that less attention or fewer resources will be devoted to school programmes but rather that increasing attention and more resources may, in the immediate future, be devoted to the out-of-school sector.

2. Out-of-school. Future educational programmes for out-of-school groups - whether they be youths or adults - seem unlikely to be satisfied with a content derived solely from population studies. This does not mean that there will not be independent programmes entitled "population education" in the out-of-school sector: it simply emphasizes the fact that the institutionalization of programmes will tend to place population education in a range of integrated settings.

Programme institutionalization seems likely to take two directions:
(a) Existing programmes concerned, for example, with family planning education or family life education may adopt a framework of population education in order to provide a broader analysis of population quality-of-life interrelationships.
(b) Existing programmes which focus upon major aspects of community welfare, quality of life or development (such as community development/literacy programmes) may include a population education component or components.

Looking to the long-term future of school and out-of-school population education, there are two imponderables: one concerning the development of new learning methods, the other the likely impact of technology. In the years to come, population educators will benefit from new theories of structuring the teaching/learning process; they will learn from motivational psychologists about involving learners in the population learning process; and from media personnel about the mass transmission and assimilation of knowledge. But, quite apart from possible advances in these areas, new teaching/learning methods being pioneered at present show promise in a variety of social settings. These methods, whether based upon processes of creating awareness or of collective co-operation, have two characteristics in common; they emphasize the learner's participation, in all aspects of programme development, and his active co-operation and self-help. Their strength lies in the use of local resources and particularly in the use of the community or social setting as a springboard for learning activities. For programme whose goals are a change in values or an improved quality of life, these techniques appear to be highly appropriate.

Developments in instructional technology will certainly affect future methodology. Indeed, some developing nations have sought to break the barrier of inadequate educational resources by using educational television and radio. In other countries, electronic video recording (EVR) has been used to provide self-instructional educational programmes to remote audiences. In the industrialized nations, the experimental use of computerized information-retrieval systems and the electronic blackboard and typewriter have methodological implications in providing immediate learner feedback. But it seems that technology will support rather than replace teacher-learner interaction.

CONCLUSION

In concluding this chapter and this report, it appears only fitting to stress again the cogency and even urgency of what population education is about. These notes are sounded here not out of some belated recognition of the imperilled resources of spaceship earth and of the threat to these resources posed by rapid population and urban growth but rather from a concern for change and development and the improvement of life quality for all people.

The concern is for human rights: the right of the individual and his community to be given an education which is of value and relevance to present and future life and the right of the individual and his community to make informed and conscious decisions about matters which affect that life.

In two very important ways, population education is involved with these concerns and with the future. Today, few people are unaware that future change, development and an improvement in the quality of life will depend to a considerable degree upon the extent to which their fellow-men everywhere can be educated to make these changes and
improvements. Secondly, it is very doubtful whether any decisions taken in life have greater impact upon quality of life than those which concern population events. And the two phenomena are linked for, taken en masse, the population decisions made by individuals very patently affect the larger population dynamic which, in turn, is a potent element in social change and national development.

The education of one generation is, to a large extent, the education of successive generations. Our capacity and our efforts - or indeed our lack of efforts - to educate the present generation with regard to population, to development, to bringing about a new social and economic order and a better all-round quality of life will be reflected in the well-being of the world's population in the more distant future.
APPENDIX A

UNESCO REGIONAL OFFICES FOR EDUCATION

Population Education Programmes

Africa

Unesco Regional Office for Education in Africa (BREDA)
B. P. 3311
Dakar (Senegal)

Regional Adviser in Population Education
Regional Adviser in Educational Planning and Population Dynamics

Arab States

Unesco Regional Office for Education in the Arab States
B. P. 5244
Beirut (Lebanon)

Regional Adviser in Educational Planning and Population Dynamics

Asia

Unesco Regional Office for Education in Asia
"Darakarn Building"
920 Sukhumvit Road
P. O. Box 1425
Bangkok (Thailand)

Population Education Mobile Team

Clearing House Services for Population Education
Unesco Regional Office for Education in Asia
"Darakarn Building"
920 Sukhumvit Road
P. O. Box 1425
Bangkok (Thailand)

Latin America

Unesco Regional Office for Education in Latin America and the Caribbean
C. P. 3187
Santiago (Chile)

Population Education Mobile Team

Clearing House Services for Educational Material including Population Education
C. P. 3187
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APPENDIX B

PUBLICATIONS OF THE UNITED NATIONS AND ITS SPECIALIZED AGENCIES AND ECONOMIC COMMISSIONS WHICH INCLUDE USEFUL POPULATION INFORMATION

1. United Nations and Specialized Agencies

United Nations (UN) on demographic statistics, e.g.: the "Demographic Yearbook", the "International Migration Statistics", the "Handbook of Vital Statistics Methods".

United Nations Educational, Scientific and Cultural Organization (Unesco) on education, literacy, etc. e.g.: the "Unesco Statistical Yearbook", the "World Survey of Education".

Food and Agriculture Organization (FAO) on food and agriculture, nutrition, etc. e.g.: the "Production Yearbook", the "Trade Yearbook", the "Monthly Bulletin of Economics and Statistics" and "The State of Food and Agriculture".

International Labour Organization (ILO) on employment, labour, etc. e.g.: "Yearbook of Labour Statistics", the "Bulletin of Labour Statistics", the "Social and Labour Bulletin" and the "International Labour Review".

World Health Organization (WHO) on morbidity, mortality and health, etc. e.g.: the "World Health Statistics Report", and the "World Health Statistics Annual".

2. Economic Commissions


Economic Commission for Western Asia (ECWA): the "Semi-Annual Population Bulletin" (January and July).

Economic Commission for Africa (ECA): the "Survey of Economic Conditions in Africa" and the "Demographic Handbook for Africa".

### Population Education Domain

#### Part I. Concept and Phenomena of Population

1. **Basic Concepts of Population**
   1.1 Population and Environment
   1.2 Man and Society
   1.3 Replacement Process

2. **Static Population Data**
   2.1 Population Survey
   2.2 Population Size and Distribution
   2.3 Population Composition

#### Elementary School

**4th Grade**

1. The Republic of Korea's population distribution and natural environment (S.S)
2. Population distribution in our province
3. Roles of parents at home (V.E)
4. Roles of children at home (V.E)
5. Reproduction of living things and air (N.S)
6. Multiplication of living things and water (N.S)
7. Multiplication of living things and sunlight (N.S)
8. Multiplication of living things and temperature (N.S)
9. The number of population in our community (A)
10. The number of population in our neighbouring communities (A)
11. Comparison of the number of population in our community and others (A)
12. Number of population to land area by city and county in our province (S.S)
13. Number of population increase in the Republic of Korea by quinquennium (S.S)
14. Number of population by city and county in our province (S.S)
15. Number of population to land area in the Republic of Korea (S.S)
16. Composition of the Republic of Korea's population by age group (S.S)
17. Composition of aged 0-4 population to total population in the Republic of Korea (S.S)
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<th>3. Population Dynamics</th>
<th>3.1 Vital Events</th>
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<td>3.2 Fertility</td>
<td>1. Natality in our community (A)</td>
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<td>3.3 Mortality</td>
<td>1. Mortality in our community (A)</td>
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<td>3.4 Migration</td>
<td>1. Concentration of local population in the city of Seoul (S.S)</td>
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<td>3.5 Population Growth</td>
<td>2. The Republic of Korea's population distribution in urban and rural areas and its changes (S.S)</td>
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<td>4. Family Life Problems</td>
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<td>1. Family size and food requirement (V.E)</td>
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<td>2. Family size and the food expenditures (V.E)</td>
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<td>3. The need for mixed grains in diet (V.E)</td>
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<th>5. Economic Problems</th>
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<td>1. Volume of food grain production and requirements in the Republic of Korea (S.S)</td>
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<td>3. Population growth and food shortage (V.E)</td>
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<td>4. Population growth and the status of grain production in our country (V.E)</td>
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<th>6. Social Problems</th>
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<td>1. Comparison of households in five major cities of the Republic of Korea (S.S)</td>
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<td>2. Population growth and shortage of health and medical facilities in the Republic of Korea (S.S)</td>
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<th>7. Health Problems</th>
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<td>1. Mixed grain and health (V.E)</td>
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<td>2. Dietary habits and preferred foods (V.E)</td>
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<td>3. Food groups, nutrient sources (V.E)</td>
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<td>4. Recipe for health improvement (V.E)</td>
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<th>8. Environmental Problems</th>
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<tr>
<td>1. Over population and the environment pollution (S.S)</td>
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<td>2. Number of population and air (Ph.E)</td>
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<td>9. Educational Problems</td>
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<td>10. Optimum Size of Children in Family Level</td>
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<td>14. Legislation Amelioration for Birth Control</td>
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<td>15. Rational Change of Folk Demographic Factors</td>
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Letters written in parenthesis indicate initials of the relevant subject

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<thead>
<tr>
<th>Subject Area</th>
<th>Elementary School</th>
<th>Middle School</th>
<th>High School</th>
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<tbody>
<tr>
<td>Social Studies</td>
<td>S. S: Social Studies</td>
<td>G: Geography</td>
<td>K. G: Korea Geography</td>
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<tr>
<td>Korea History</td>
<td>K. H: Korea History</td>
<td>W. H: World History</td>
<td>H. G: Human Geography</td>
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<tr>
<td>Mathematics</td>
<td>A: Arithmetic</td>
<td>C: Civics</td>
<td>W. H: World History</td>
</tr>
<tr>
<td>Science</td>
<td>N. S: Natural Science</td>
<td>M: Mathematics</td>
<td>P. E: Politics and Economics</td>
</tr>
<tr>
<td>Physical Education</td>
<td>Ph. E: Physical Education</td>
<td>S: Science</td>
<td>S. C: Society and Culture</td>
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<tr>
<td>Home Economics</td>
<td>V. E: Vocational Education</td>
<td>Ph. E: Physical Education</td>
<td>K. H: Korea History</td>
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<td></td>
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<td>H. E: Home Economics</td>
<td>M: Mathematics</td>
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<td></td>
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<td>B: Biology</td>
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<thead>
<tr>
<th>KNOWLEDGE(*2) BASIC SCIENCES(*3)</th>
<th>CONTENTS</th>
<th>WORKING UNITS(*4)</th>
<th>CURRICULAR BASIS(*5) (subject matters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Studies</td>
<td>Different patterns of population growth</td>
<td>Variables of demographic growth, natality, mortality, migration, urbanization</td>
<td>Geography, social institutions, mathematics, statistics, sociology</td>
</tr>
<tr>
<td>Biology</td>
<td>Life expectancy</td>
<td>Census, natural population growth projections, Pyramids, Age, Sex, Active population and dependency ratio</td>
<td>Civics, statistics, psychology, sociology</td>
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<tr>
<td>Mathematics, statistics</td>
<td>Diagrams, graphics, exponential growth, positive and negative acceleration. Patterns of population growth: slow, fast, moderate Doubling of population</td>
<td>Epidemiology</td>
<td>Arithmetic</td>
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<tr>
<td>Economics</td>
<td>Social problems</td>
<td>Incidences of population dynamics: housing, health, education, labour. Migration repercussions</td>
<td>Geography, economics, modern history, sociology.</td>
</tr>
<tr>
<td>Sociology</td>
<td>Population policies</td>
<td>General concepts on planning and development: their necessity and importance. History of planning processes. Population policies</td>
<td>Philosophy, civics, social institutions</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>Quality of life and development</td>
<td>Concepts of development and their application</td>
<td>Philosophy, geography</td>
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<tr>
<td>VALUES AND ATTITUDES</td>
<td>BASIC VALUES</td>
<td>ATTITUDES</td>
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<tr>
<td>Respect and critical judgement</td>
<td>Ability to analyse, criticize personal opinions in relation to aspirations and goals for the future. Ability to develop feelings of identity and equality with all human beings, avoiding egoism. Be aware of social and population national policies, developing feelings of justice and tolerance.</td>
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<tr>
<td>Free and informed responsibility</td>
<td>Ability to analyse, evaluate and assume responsibility for one's own life and for one's own engagement towards socio-economic development. Ability to value and demonstrate solidarity with other human beings at the family, social, national and universal levels. Be aware of individual responsibilities towards demographic problems and their solutions. Assume one's own decisive role in the life of the community.</td>
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<tr>
<td>Participation</td>
<td>Develop interest, attitudes of enquiry and a taste for reflective thinking towards the development of the community. Ability to share information, ideas, feelings and plans with others. Ability to assume one's own participation in the national decisions as a conscious elector and/or as a partner in community development. Reciprocal assistance to other individuals.</td>
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<td>Creativity Prospective thinking</td>
<td>To consider the development of the community as a continuing task for planned improvement. Ability to communicate and discuss development and population problems, free from stereotypes. Ability to explain ideas and aspirations in relation to the development of the community. Ability to take an active part in the elaboration of development plans.</td>
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<tr>
<td>CONDUCT AND BEHAVIOUR</td>
<td>DECISIONS</td>
<td>POSSIBLE CONDUCT AND BEHAVIOUR</td>
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<tr>
<td>Objective information and conscious decisions</td>
<td>Enquire, evaluate and select criteria to define desirable behaviour in relation to population issues. Ability to modify one's own attitudes, criteria and decisions. Ability to apply objective conclusions drawn from the study in personal life issues.</td>
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<tr>
<td>All decisions in respect of the human being</td>
<td>Select the most favourable behaviour for the individual well-being in the framework of general development and improved quality of life. Be tolerant. Avoid prejudicial and discriminative behaviour.</td>
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<tr>
<td>Decisions to participate</td>
<td>Participate in educating others on demographic questions. Actively exercise the role of citizen in the field of population activities. Help those responsible for integrated and up-to-date education in the field of population.</td>
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<tr>
<td>Sense of responsibility</td>
<td>Assume responsibility for one's own conduct in respect of oneself and others with consistency and continuity.</td>
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<tr>
<td>Forecast</td>
<td>Select the most favourable conduct for the solution of population problems with a view to the future and consciously define the consequences of such behaviour, in relation to sexuality, responsible parenthood, the development of their own community and the building up of the human community.</td>
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<tr>
<td>Creativity and prospective thinking</td>
<td>Select individual, legal, societal and universal conduct and behaviour in population matter, which will permit an integrated development without conflict between the individual and the community.</td>
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</table>

Source: General Programme of Population Education, Volume D, Units I-VIII.

*1. Education in demography is one of the sections which, together with sex education, family and social-life education, environment education, integrates the population education curriculum in the experimental project developed by the University Del Valle del Cauca.

*2. Objectives and contents in relation to knowledge, attitudes and behaviour are stated in each section, in order to associate the elaboration of information, the acquisition of values and attitudes and the ability to make decisions and to behave accordingly.
*3. The basic sciences referred to in this column are those which constitute the body of knowledge (population studies) necessary for an interdisciplinary approach to education in demography, within the framework of population education.

*4. Contents of each of these sections are distributed in the form of working units which are adapted to the respective courses, from the third grade at primary level to the sixth year at secondary level, where population education components are introduced.

*5. The curricular basis refers to the subject matters of the official programme of the various courses in which population education contents are integrated.
APPENDIX D

HUMAN RIGHTS WHICH HAVE DIRECT OR INDIRECT BEARING UPON POPULATION PHENOMENA AND QUALITY OF LIFE

(a) Human rights which have a direct bearing upon population processes: fertility, migration, mortality (life expectancy)

1. The right to marry and found a family

<table>
<thead>
<tr>
<th>Article 16</th>
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<tbody>
<tr>
<td>1. Men and women of full age, without any limitation due to race, nationality or religion, have the right to marry and to found a family. They are entitled to equal rights as to marriage, during marriage and at its dissolution.</td>
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<tr>
<td>2. Marriage shall be entered into only with the free and full consent of the intending spouses.</td>
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<tr>
<td>3. The family is the natural and fundamental group unit of society and is entitled to protection by society and the State.</td>
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equality of rights

free consent of spouses

protection of the family


Principle II

Member States shall take legislative action to specify a minimum age for marriage, which in any case shall not be less than fifteen years of age; no marriage shall be legally entered into by any person under this age, except where a competent authority has granted a dispensation as to age, for serious reasons, in the interest of the intending spouses.

minimum age for marriage

2. The right to determine the number and spacing of the children

**Article 22**

(a) The development and co-ordination of policies and measures designed to strengthen the essential functions of the family as a basic unit of society.

(b) The formulation and establishment, as needed, of programmes in the field of population, within the framework of national demographic policies and as part of the welfare medical services, including education, training of personnel and the provision to families of the knowledge and means necessary to enable them to exercise their right to determine freely and responsibly the number and spacing of their children;

(c) The establishment of appropriate child-care facilities in the interest of children and working parents.

Declaration on Social Progress and Development Proclaimed by the General Assembly of the U.N. on 11 December 1969 (resolution 2542 (XXIV)).

3. Protection of motherhood and childhood

**Article 25**

1. Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

2. Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection.

Universal Declaration of Human Rights.

(b) The protection of the rights of the mother and child; concern for the upbringing and health of children; the provision of measures to safeguard the health and welfare of women and particularly of working mothers during pregnancy and the infancy of their children, as well as of mothers whose earnings are the sole source of livelihood for the family; the granting to women of pregnancy and maternity leave and allowances without loss of employment or wages;

Art. 11 (b) Declaration on Social Progress and Development.
Preamble, No. 3

Whereas the child, by reason of his physical and mental immaturity, needs special safeguards and care, including appropriate legal protection, before as well as after birth,

Principle 1

The child shall enjoy all the rights set forth in this Declaration. Every child, without any exception whatsoever, shall be entitled to these rights, without distinction or discrimination on account of race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status, whether of himself or of his family.

Principle 2

The child shall enjoy special protection, and shall be given opportunities and facilities, by law and by other means, to enable him to develop physically, mentally, morally, spiritually and socially in a healthy and normal manner and in conditions of freedom and dignity. In the enactment of laws for this purpose, the best interests of the child shall be the paramount consideration.

Principle 6

The child, for the full and harmonious development of his personality, needs love and understanding. He shall, wherever possible, grow up in the care and under the responsibility of his parents, and, in any case, in an atmosphere of affection and of moral and material security; a child of tender years shall not, save in exceptional circumstances, be separated from his mother. Society and the public authorities shall have the duty to extend particular care to children without a family and to those without adequate means of support. Payment of State and other assistance towards the maintenance of children of large families is desirable.

Principle 7

The child is entitled to receive education, which shall be free and compulsory, at least in the elementary stages. He shall be given an education which will promote his general culture, and enable him, on a basis of equal opportunity, to develop his abilities, his individual judgement, and his sense of moral and social responsibility, and to become a useful member of society.

Article 26

3. Parents have a prior right to choose the kind of education that shall be given to their children.

Universal Declaration on Human Rights.

Principle 9

The child shall be protected against all forms of neglect, cruelty and exploitation. He shall not be the subject of traffic, in any form.

The child shall not be admitted to employment before an appropriate minimum age; he shall in no case be caused or permitted to engage in any occupation or employment which would prejudice his health or education, or interfere with his physical, mental or moral development.

Declaration of the Rights of the Child.

4. The right to liberty of movement

Article 13

1. Everyone has the right to freedom of movement and residence within the borders of each State.
2. Everyone has the right to leave any country, including his own, and to return to his country.

Universal Declaration on Human Rights.
(b) Human rights which have a direct bearing upon human well-being or quality of life, and which appear to possess most significance for population contexts

1. The right to social and economic security

**Article 6**

Social development requires the assurance to everyone of the right to work and the free choice of employment. Social progress and development require the participation of all members of society in productive and socially useful labour and the establishment, in conformity with human rights and fundamental freedoms and with the principles of justice and the social function of property, of forms of ownership of land and of the means of production which preclude any kind of exploitation of man, ensure equal rights to property for all and create conditions leading to genuine equality among people.

**Article 10**

(a) The assurance at all levels of the right to work and the right of everyone to form trade unions and workers' associations and to bargain collectively; promotion of full productive employment and elimination of unemployment and under-employment; establishment of equitable and favourable conditions of work for all, including the improvement of health and safety conditions; assurance of just remuneration for labour without any discrimination as well as a sufficiently high minimum wage to ensure a decent standard of living; the protection of the consumer;
(b) The elimination of hunger and malnutrition and the guarantee of the right to proper nutrition;
(c) The elimination of poverty; the assurance of a steady improvement in levels of living and of a just and equitable distribution of income;
(d) The achievement of the highest standards of health and the provision of health protection for the entire population, if possible free of charge;
(e) The eradication of illiteracy and the assurance of the right to universal access to culture, to free compulsory education at the elementary level and to free education at all levels; the raising of the general level of life-long education;
(f) The provision for all, particularly persons in low-income groups and large families, of adequate housing and community services.

Declaration on Social Progress and Development.
2. **Elimination of discrimination against women**

### Article 6

1. Without prejudice to the safeguarding of the unity and the harmony of the family, which remains the basic unit of any society, all appropriate measures, particularly legislative measures, shall be taken to ensure to women, married or unmarried, equal rights with men in the field of civil law, (...)

### Article 9

All appropriate measures shall be taken to ensure to girls and women, married or unmarried, equal rights with men in education at all levels, (...)

### Article 10

1. All appropriate measures shall be taken to ensure to women, married or unmarried, equal rights with men in the field of economic and social life, (...)

Declaration on the Elimination of Discrimination against women proclaimed by the General Assembly of the United Nations on 7 November 1967 (resolution 2253 (XXII)).

### Article I

Women shall be entitled to vote in all elections on equal terms with men, without any discrimination.

### Article II

Women shall be eligible for election to all publicly elected bodies, established by national law, on equal terms with men, without any discrimination.

### Article III

Women shall be entitled to hold public office and to exercise all public functions, established by national law, on equal terms with men, without any discrimination.

Convention on the Political Rights of Women Opened for signature and ratification by General Assembly resolution 640 (VII) of 20 December 1952.

### Article 5

Women shall have the same rights as men to acquire, change or retain their nationality. Marriage to an alien shall not automatically affect the nationality of the wife either by rendering her stateless or by forcing upon her the nationality of her husband.
Declaration on the elimination of discrimination against women.

3. **The right to privacy and freedom of conscience**

**Article 17**

1. No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honour and reputation.

**Universal Declaration of Human Rights.**

**Article 19**

1. Everyone shall have the right to hold opinions without interference.
2. Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.
3. The exercise of the rights provided for in paragraph 2 of this article carries with it special duties and responsibilities. It may therefore be subject to certain restrictions, but these shall only be such as are provided by law and are necessary:
   (a) For respect of the rights or reputations of others;
   (b) For the protection of national security or of public order (ordre public), or of public health or morals.

**International Covenant on Civil and Political Rights.** Adopted and opened for signature, ratification and accession by General Assembly resolution 2200 A (XXI) of 16 December 1966.

**Article 18**

Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his religion or belief, and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in teaching, practice, worship and observance.

**Universal Declaration of Human Rights.**
APPENDIX E

SOME SPECIFIC RESEARCH ISSUES IN QUESTION FORM(1)

The nature of the learner

What is the nature of the learner’s "folk demography"? What is the nature of the learner's population-related concepts?

In what ways is this series of concepts or perceptions about population related to other concepts or perceptions within a particular society or culture?

More specifically, what socio-cultural factors impinge upon or influence the growth and development of these concepts?

Is there a difference in growth and development of concepts according to social class, economic status of family, religion, or for example, urban-rural locus of the learner?

What cognitive understandings have learners acquired within a particular society or culture in regard to population matters? For example, what do learners know of national population size, national population growth rates, national population composition, national population age structure; or of the relationship between family size and family health; or of the relationship between family size and educational level; or, indeed, at a most elementary level, are children aware that family size can be planned?

In what ways are the growth and development of cognitive understanding age-linked and sex-linked in different cultures and societies?

What beliefs, affective values or attitudes have learners acquired in regard to population issues, for example, ideal family size, ideal family composition, urban versus rural living, etc?

In what ways are the growth and development of these "value systems" age-linked and sex-linked in different cultures and societies?

In a particular society or culture, what are the relationships between learner’s (by age and sex) level of understanding of population issues on the one hand and values and attitudes in regard to these issues on the other?

What is the nature of the population dynamic as it impinges upon the learner? For example, how does the learner perceive population "pressure"? Does the learner from the extended family perceive family size increase in a different way from those living in nuclear families in the same society and culture?

What are the "quality of life" aspirations of learners (by age and sex) within particular societies and cultures? In what sense are these aspirations linked to family size and composition and other population-related issues? Are such perceptions age- or school-linked?

For those learners whose population understanding and value systems are not the same as those of their fellow learners, what factors have led to this divergency?

Is there a difference in cognitive or affective learning in regard to population matters between learners of the same age/sex who are enrolled in school and those who are not enrolled in school? (The nature and scope of the population component of the school curriculum needs to be identified.)

The nature of the learning process

In-School

What population understandings or value systems are contained in current text materials in common classroom use? Can these understandings and values be identified and classified as a basis for further unit building?

What population understandings and value systems are common to primary and post-primary school teachers? To what degree are these a function of training? To what degree are they a reflection of socio-cultural learning?

What population understandings and value systems are presently transmitted by the in-school process? How are such concepts communicated and learned?

What in-school cognitive population learnings lead to the acquisition of specific attitudes and value systems? For example, in what ways does a knowledge of the causes and consequences of national population growth (a cognitive base) lead to attitude change? What is the nature of the learned attitudes?

or,

what component cognitive elements most effectively inculcate value systems favouring migration, non-migration or limited family size?

In what different ways (with emphasis upon motivation/communication) may selected population values, e.g. limited family size, be handled in classrooms? What ethical and moral considerations might influence such teaching in schools in a given society context? What is the effectiveness of such teaching?

In particular societies, what is the nature of sex rôle constraints upon the teaching of specific population values?

What are the most effective strategies in unit curriculum development? What are the limitations to construction, in terms of availability of teaching materials? In what ways might "the media" be used in developing pre-packaged units?

In-School/Out-of-School

How do learners (by age and sex) in particular societies or cultures learn concepts which are population-based or related?

What are the identifiable sources of such learning? What is the role of family, peer group, other adults and the mass media?

By what means are these concepts communicated to the young, and at what age? Is there a difference due to sex? Is there an urban/rural difference?
What are the measurable spin-offs, in terms of population learning for children (by age and sex), of adult oriented family planning programmes?

How can the goals of a population education programme be institutionalized for out-of-school groups? Which strategies of communication are the most effective for adults, in given societies and cultures?

What methodologies of instruction are most effective for non-school groups (by context and content)?

What strategies of contact/retention are most effective for non-school groups (by context and type of group)?

The nature of learning outcomes

Short-Term

Given a specific cognitive content taught in a given way, to specified groups of learners (by age, sex, distribution, etc.), what cognitive outcomes can be measured at different time intervals thereafter?

Given a specific affective content taught in a given way (or structured in a given way) to specified groups of learners (by age, sex, distribution, etc.), what affective outcomes can be measured at different time intervals thereafter?

What are the family and/or community characteristics which seem related to the attainment of various cognitive or affective outcomes?

Long-Term

Given a specific programme of population education with a cognitive and/or affective content, taught in specific ways to specific groups of learners, what are the measurable behavioural outcomes (in comparison to a control group) through adulthood? (A longitudinal study).

What are the "time interval" influences which emerge?

What is the nature of socio-cultural, socio-economic and religious influence?

Is there a marked sex or urban/rural differential?

What are the spin-offs, in terms of population learning, of an in-school programme to an adult population?

Is there a measurable difference in knowledge of population issues, between children (by, for example, age, sex and socio-economic class) who have undergone a specific programme of population studies and the parents of those children?

Is there a measurable difference in population-related values and attitudes between children (by, for example, age, sex and socio-economic class) who have undergone a specific programme of population studies and the parents of those children? What is the nature of value conflict, if any, and how has it been resolved?

What are the knowledge components of various behaviours for different age groups in different contexts? For example, under what circumstance is knowledge of human anatomy and/or reproduction necessary to plan one's family size?
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