Speakers on population matters often refer to the population explosion with an air of crisis. It is questionable that images of doomsday are defensible for us in our role as educators. The goals of population education are to develop an understanding of the impacts of population characteristics on national development, as well as their impact on the individual. A second purpose is to develop informed individuals who will make responsible decisions. Population study introduced population characteristics, and the causes and consequences of population change, and it includes a wide range of social phenomena affected by population. There are more than 20 countries now developing programs. However, the next step is to develop a population unit or cell within a country's educational system, defining the objectives. The final decision is whether a series of new courses are needed, or whether population concepts should be infused throughout the existing curriculum. Population learning will probably be more effective if children are confronted with population material throughout their curriculum and throughout their entire school careers. Social studies offer particularly fruitful areas for population learning. In addition, population study should be part of teacher training. SO 000 282 is a directory of national programs.
DEVELOPING EDUCATION PROGRAMS
FOR POPULATION AWARENESS*

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Speakers on population matters exhibit a strong tendency to begin their talks with statistic-laden statements charting the rapid growth of world population in the last century. They are likely to refer to the population explosion and the population bomb. Speaking with an air of crisis they chart the perils of overpopulation and population, the term coined to cover the population-pollution interface.

I have no intention, however, to follow this formula. I do this not because I do not believe that various population problems do not exist in our societies but rather because these images of doomsday are not defensible for us in our role as educators.

The aims of education are to increase knowledge and ways of knowing, to develop understanding and awareness, and, hopefully, to help us to achieve wisdom in the conduct of our lives, both as individuals and collectively. These aims are shared by the new field that has come to be called population awareness education.

The goals of population education are to develop an understanding of the impacts of population characteristics and processes on national development both in the short and long run, as well as their impact on the individual and his family. Thus population education deals with society at both the macro- and micro-levels. As such, it serves a dual purpose. First, it serves to develop an informed citizenry capable of understanding population characteristics and processes as they affect society, and capable of making responsible decisions with regard to public policy as it might affect, and be affected by, these processes. Second, population education aims at developing informed individuals who will, as a result

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of the knowledge and understanding achieved through their education, make respon-
sible decisions concerning their own reproductive behavior. The key concept is re-
sponsible decision making which involves foreknowledge and understanding of the
consequences of one's actions. This is the beginning of wisdom, and represents the
moral and ethical purpose of population education.

The content of population education may vary from country to country, de-
pending upon its educational traditions. One broad conception of the field was
offered by a Colombian priest in conversation last September. He defined the
parts of population education as Love, the Family, Population and Development.

Love and the Family are encompassed by the fields traditionally labelled
sex education and family life education. These deal with human relationships at
the individual and interpersonal level. Human sexuality, human reproduction and
the individual in the family are the focus of interest.

Population study involves introducing into the curriculum information
concerning population characteristics and the causes and consequences of population
change. This implies much more than simply a study of births, deaths, migration
and growth rates. Among other things it includes an attempt to develop an under-
standing of a wide range of social phenomena that are closely linked with and
affected by population such as urbanization and the role and status of women. Fur-
thermore, since all demographic processes stem from the behavior of individuals,
population study also attempts to elucidate the social and psychological bases for
this behavior.

Population awareness education, therefore, differs from sex education and
family life education, where the focus is primarily on the individual, by viewing
the individual in the context of the broader society, relating his actions to this
broader concern. And it is this linking of the individual to the broader society
that forms one of the important elements in the entire process of development.

It is true that in many countries population education is being urged in
response to a clearly defined "population problem." It is often suggested, as in
this statement from India, that for family planning "to become a way of life, it must become, sooner or later, part of the general health and the social education necessary to prepare the children for adult lives." Population education, to follow this line of reasoning further, is viewed as a way of "ensuring continuing momentum to planned parenthood after crash programmes have ended." Without denying the validity of this approach, in that particular setting, I would like to suggest that it is too narrow a view of the field. Population education can be and is justifiable on strictly educational grounds. The characteristics of a population and the changes that occur in a population touch upon all our lives, whether we believe our country to be overpopulated or underpopulated. If it is educationally viable to study animal populations within the biology course of study, and I doubt that anyone would deny the value of this, then I suggest it is equally important that we include the study of human populations in our science, social studies and humanities curriculums. Thus, population education is as valid for countries such as Argentina and Japan, where there is an assumption that more rather than fewer people may be necessary for reasons of achieving an adequate labor supply, or economic growth, or other national goals, as it is for countries such as India and the United States who acknowledge in varying degrees their population "problems."

If we accept the importance and validity of introducing population education we are then faced with the problem of bringing about change in the educational system. There are now more than twenty countries throughout the world involved in the development of programs, and the number of approaches is almost as great. The size of the country, the nature of its educational system, its perception of a population problem, and the extent to which the impetus for population education comes from medical specialists in family planning, or from within the educational community itself, are among the more important variables in determining the road to follow in establishing a program.
As with any educational change it is important that there be a reasonably broad base of support. The movers in this field have found the workshop/seminar approach fruitful to expose and refine their ideas, and to motivate others to join with them.

For example, within the course of ten months, during 1969, there were three national conferences in India and many more regional conferences devoted to a discussion of population education. They were sponsored by the Family Planning Association of India, by the National Council of Educational Research and Training of the Ministry of Education, and by the Central Health Education Bureau of the Ministry of Health. Each resulted in a publication that has had wide distribution within the country. One potentially important result of these conferences was the establishment of a population education cell within the National Council with its own budget and staff to develop materials and plan research and training programs. The conferences also stimulated a wide range of other projects so that there are today probably as many as a dozen groups working individually and in concert on material development, teacher training and research.

In Chile the impetus for the development of population education has come from the Center for Training, Experimentation and Pedagogic Research affiliated with the Ministry of Education. Their program appears to be one of the most far-reaching now being developed anywhere in the world. As part of a general revision of the entire Chilean school curriculum, population-relevant concepts were developed. Materials were then written to include these concepts wherever appropriate to the content of the social studies curriculum at the upper elementary and secondary school levels. Additional materials as part of the biological curriculum are also being developed. In early September of this year the Center held a workshop in Santiago for Chilean teacher trainers from normal schools and from the universities to present their progress and their plans. The response was enthusiastic and it is likely that others will now join in the effort.
In Colombia, interest in population education has developed both at the University of Valle in Cali, and at the Colombian Association of Medical Schools where it is coupled with a concern for family life and sex education as well. During the first week of November the Association will sponsor a seminar to bring together a group of deans and professors of education and officials of the Ministry of Education for the purpose of reviewing possible programs for future development in Colombia. Among other things they will review with the educators the effect of demographic pressures resulting both from the democratization of education and from the presence of larger numbers of school age children will have on the provision of educational services. The development of population education programs will be discussed as one of education's possible responses to these demographic challenges.

Having determined an interest in and support for population education, a review of world experience to this time suggests as a next step the creation of a population education unit or cell within the country's educational system. This group should define the purposes and goals of the program, coordinate activities to insure progressive and consistent program development, and plan and facilitate the necessary program development activities, including teacher training, the preparation of materials, the review of already existing curricula, program-related research, and evaluation. The group should be made up of professional educators who have developed competency in the area of population. They should be able to speak knowledgeably to teachers and to officials in the Ministry of Education.

Once the countries' specific goals and purposes are made clear, there will be a need to determine whether a series of new courses are likely to be most meaningful and effective, or whether population concepts should be infused throughout the school curriculum in all relevant subjects and at all grade levels. Although these approaches are not mutually exclusive and both new courses and infusion can be
greater attention to the process of infusion. First, the demands of the traditional disciplines for more time as the boundaries of knowledge are pushed back generally preclude the possibility of adding new courses to the curriculum. Furthermore, population learning will probably be more effective if children are confronted with population-relevant material throughout their school curriculum and during their entire period of schoolgoing. Finally, the infusion of population education concepts may help to integrate student learning in a number of other curriculum areas that have perplexed educators over the years. Two brief examples from the United States may serve to illustrate this latter point.

International studies designed to increase the student's knowledge and understanding of the world in which he lives has been on the public schools' agendas since the late forties, at least, and has been a subject of major concern during the last decade. The problem has been to give the student a feeling for and a sensitivity to other cultures. All too often, however, the programs have been tours of exotica. Emphasis has been placed either on one culture region, to the exclusion of all others, or on a very broad survey of world cultures giving too little attention to any one. If the goal is to give the student an insight into how others view the world, neither approach seems to suffice. By making population study the focus of international studies programs, the student will be encouraged to understand the wide range of similarities and differences that exist in the world and the varying roles that politics, economics, culture, society and religion play in the shaping of policies, attitudes and actions both at the level of the individual and at the societal level.

Another task that faces the school is to encourage and assist the student to synthesize what he has learned, and to apply that knowledge and understanding to the real world in which he lives. Study of the impact of a zero rate of population growth on the society and economy of the United States offers a wide range of opportunities for the student to try to predict, and, hopefully as a result, prepare
for the future. In the past, age pyramids—at least for the ages included in the labor force—have tended to mirror the organization and patterns of upward mobility of industry and of much of society. When that age pyramid begins to approximate a rectangle, as a result of a zero growth rate, what changes will have to take place within the society as a whole? And what changes may be necessary or inevitable when economic growth, which has been predicated at least in part on population growth, can no longer rely on that factor? Solutions to problems arising from a zero growth rate will not be easily found, but the student’s search for understanding may help to give relevance and meaning to much else that he has been taught. And as a recent editorial in Science has suggested, “There is probably nothing more important to man’s future on this planet than an understanding of the long-range effects of his activities.”

When we consider the possibility of infusing population-related concepts throughout the school curriculum, we soon realize that virtually no area of human knowledge covered by the curriculum is excluded. Some brief examples will suffice.

In art courses an aesthetic of space could be related to a discussion of population.

Information concerning balanced and unbalanced human and animal populations, and the ecology of population can be discussed with great relevance in biology courses.

Various mathematical concepts could be well illustrated through the use of population data. Concepts of numerical size—hundreds, thousands, millions and billions—could be taught using population data. The concept of compound interest could be learned as well from a study of population growth rates as from any other data.

Clearly the social studies offer a particularly fruitful area for population learning. The growth of world population can be traced, and the factors that affected that growth discussed, for their historical and contemporary relevance.
Differences in belief systems—whether religious, political or social—could be reviewed with reference to their stands on the origins and consequences of rapid population change. Students might be encouraged to study population as a local phenomenon—taking a census of the community, learning of past growth, and projections for the future, including among other things the need for new or expanded educational and health facilities, transportation and housing. This would demonstrate the difficulty of collecting data, the cautions with which one must approach the analysis of data, and would at the same time make the study of population a more personal and more relevant study.

It is clear that the opportunities for developing relevant materials for inclusion in the curriculum are many. Only hard work and imagination are needed.

As in the diffusion of any educational innovation it is advisable to introduce teachers to the programs as soon as possible. In fact, to the extent that it is practical and possible within the educational traditions of the country, teachers should be deeply involved from the very beginning. They, for example, are perhaps in the very best position to suggest and decide where best to infuse population concepts once the nature of population study is made clear to them.

It is highly desirable early in the program to develop a few teachers who will be population education specialists. They would work closely with the population education unit within the Ministry of Education to insure that the program is teachable and workable in the schools.

However, it seems likely that we will not want to develop large numbers of teachers as population education specialists. Rather, we should attempt to infuse the content of population study into the teacher training curriculum in much the same manner that we are proposing for the elementary and secondary schools themselves. And any special methodology that might be developed for population education should be handled through the training in methodology that teachers now set in their regular teacher training. Special problems might be handled through
the development of in-service and summer institutes as the demand seems to present itself.

Obviously, new materials both for teachers and for students will have to be developed and existing materials revised in order to accommodate this new interest in population. One of the most useful projects to devote early attention to is the production of a reference book or guide for teachers. This might include a general introduction to demography and population study, as well as some of the basic data and information that might be useful to the teacher in lesson planning and classroom teaching.

Research and program evaluation should be included as part of the development of a national program from the very beginning. Knowledge of the nature of population learning and the developmental stages of population learning are obviously of the greatest importance to teachers and curriculum developers. Similarly, it is of considerable importance to know as the program begins what are the students' and teachers' knowledge of and attitudes toward population matters. These data are not only valuable to the curriculum planner; they also serve as a baseline for purposes of evaluation.

There is considerable room for cooperation between educators the world over in the development of this new field of education. The Population Council is particularly interested in facilitating this cooperation and communication through a variety of means. Ultimate responsibility for the development of a national program, however, must rest with the nationals of the country involved. They must be the creators of the new materials and the new programs, and not the consumers of others' packages. As was noted in a recent discussion of population education in Pakistan, "a good idea or a good programme is not necessarily accepted just because it is good or even beneficial. Innovators introduced from the outside with whom the local person cannot identify himself meet with limited success. To promote new ideas they must be introduced by local leaders."
In concluding I should like to note that many Latin American friends and colleagues have suggested that population education cannot be introduced in Latin American schools. They argue that the word "population" conjures up images of population and birth control, which for various political, social, cultural and religious reasons, is not a popular image at this point in history. I submit, however, that population education views population not as a problem to be controlled, but rather as a phenomenon—both social and biological—to be understood. As with all good education it does not teach an orthodoxy, but rather provides the student with ways of knowing and with the information that is known so that he can act responsibly. Thus, population education is no more nor less sensitive than anything else we may teach in the schools. It differs from much else we teach only in the sense that it may be more relevant to the students' own life, both now and in the future.

If you agree, as I do, with the observation of the philosopher Alfred North Whitehead, that "there is only one subject-matter for education, and that is life in all of its manifestations," then the development of education programs for population awareness should be high on the agenda of all of our schools.
Footnotes


2. The Statesman (New Delhi), December 5, 1969.


