

**Final Report**

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**UNESCO**

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#### PART IV

### RECOMMENDATION NO. 74 TO THE MINISTRIES OF EDUCATION CONCERNING THE UNIVERSALIZATION AND RENEWAL OF PRIMARY EDUCATION IN THE PERSPECTIVE OF AN APPROPRIATE INTRODUCTION TO SCIENCE AND TECHNOLOGY

#### PREAMBLE

The International Conference on Education, convened by the United Nations Educational, Scientific and Cultural Organization, meeting in Geneva at its 39th session, held from 16 to 25 October 1984,

Recalling the Universal Declaration of Human Rights, particularly Article 26 which stipulates, in particular, that 'Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory',

Recalling resolution 37/178 relating to the right to education, adopted by the General Assembly of the United Nations at its 37th session,

Recalling the Convention and Recommendation against Discrimination in Education adopted by the General Conference of Unesco at its eleventh session,

Recalling also that the importance of the right to education has been emphasized by many intergovernmental conferences convened by Unesco, and more particularly by the 37th and 38th sessions of the International Conference on Education, by the General Conference of Unesco at its fourth extraordinary session (resolutions 2/02, 2/04 and 2/05) and at its twenty-second session and by the regional conferences of Ministers of Education of the Arab States (Abu Dhabi, 1977), of Asia and the Pacific (Colombo, 1978), of Latin America and the Caribbean (Mexico City, 1979), of Europe (Sofia, 1980) and of Africa (Harare, 1982),

Noting also that resolution 2/06 of the fourth extraordinary session of the General Conference makes clear the importance for the development of a society of an introduction to science and technology at school,

Noting that, although the right to education is generally recognized and substantial progress has been made towards its achievement at the primary level, serious disparities remain among and within countries of the world,

Observing that repetition of grades, drop-out and other forms of wastage still exist in many countries, and that they lead to wastage of human and material resources and thus hinder further democratization and universalization of primary education,

Recognizing that, in order to bring about the universalization of primary education, where this goal has not yet been achieved, and its renewal, it is not enough to mobilize and co-ordinate all the necessary resources but that the entire population must be informed and made aware, so that they will take an active part in this process,

Concerned at the alarming adult literacy situation in many developing countries and even in some industrialized ones,

Considering that the universalization of primary education is the prerequisite for any permanent eradication of illiteracy, and that the continuation of education at other levels should be completed by efforts to increase action on behalf of adults to eradicate illiteracy and prevent reversion to illiteracy,

Further convinced that the universalization of primary education and further democratization of education in general will best be achieved if peace, international understanding and mutual respect among peoples are preserved; and that international co-operation in the field of primary education can play an essential role in this respect,

Recognizing the constitutional provisions of each Member State and its particular educational needs and systems,

Adopts on 25 October 1984, and submits for consideration by ministries of education and appropriate authorities and agencies in the various Member States; other institutions within the United Nations system having responsibilities in this field; and intergovernmental and non-governmental organizations concerned, the following Recommendation :

## I. UNIVERSALIZATION OF PRIMARY EDUCATION

### A. General principles and key concepts

The process of universalization of primary education should be guided by the following general principles and key concepts :

1. The right to education is a fundamental right of every child which should ensure the all-round development of his or her personality.
2. This right should be guaranteed to all children of the relevant school age, irrespective of race, nationality or ethnic origin, sex, handicap, attitude to religion or religious belief, ideology, place of living, means or parent's social situation.
3. As stated in Article 4 of the Convention and Recommendation against Discrimination in Education, primary education should be free and compulsory and steps should be taken to ensure that all comply with the obligation to attend school prescribed by law.
4. The universalization of primary education should not lead to a lowering of standards or of the quality of education. Every child has the right to receive a quality education of sufficient duration to ensure all-round development of the child as an individual and as a member of society and providing him or her with the basic knowledge and skills needed in his or her everyday life and for the continuation of education and effective participation in the economic, cultural and social development of the local and national societies. The education provided should be directed to the utmost development of children's potentials, abilities and interests, to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms; it should promote peace, understanding, tolerance and friendship among all nations.
5. In educational policies and plans relating to primary education, special attention should be paid to pupils coming from disadvantaged groups and in particular the most deprived. Special attention should be accorded to education of girls.
6. Primary education should always take place in a positively inspired emotional climate. Every child should be in school have the feeling of being accepted and valued which appears as an important perspective for the future development of the individual personality and the feeling of one's own value.
7. Special attention should be accorded to solutions likely to reduce under-achievement, repetition of grades, drop-out and the social problems resulting therefrom. In this connection, the procedures for promotion from one grade to the next should also be reconsidered.
8. Primary education should be seen as a basic part of a general system of education; co-ordination and continuity in aims, content and structure between it and other stages of education should be reinforced. Wherever possible, provisions for pre-primary education and for non-formal educational activities should be made available to all children.
9. There is a need to search, in accordance with the conditions obtaining in each country, for complementary between formal and non-formal education at the primary level in order to find more efficient and effective approaches to both. As a supportive measure, where necessary, to achieve the goal of universalization, non-formal primary education should be developed and maintained.
10. Effective participation by all sectors of society in the process of the universalization of primary education is one of the prerequisites for its attainment.
11. The universalization of primary education cannot be considered in quantitative terms only. Even where it is not yet universal, primary education calls for a continuous process of renewal of aims, structures, content, means and methods in order to secure the best educational opportunity for all children.

### B. Practical measures and programmes at the national or any other level

#### Policy and objectives

12. In the Member States where the universalization of primary education has not yet been achieved or has been achieved only in part, clearly defined policies should be adopted to give priority to :
  - (a) the achievement of universal primary education in the shortest possible time;
  - (b) the renewal of primary education in order to ensure that it allows the full development of the children and is relevant to the economic, social and cultural development needs of societies;
  - (c) special educational provision for disadvantaged groups of population;
  - (d) the strengthening of formal and non-formal primary education activities directed to preventing drug abuse and to promoting the anti-narcotics campaign.

13. In pursuance of these policies, long-term quality objectives and quantitative goals for the universalization of primary education should be determined and implementation plans developed, taking into account the economic, social, cultural and demographic circumstances as well as financial and other constraints (such as lack of teachers, textbooks, funds, school buildings, equipment).
14. Educational investment should be regarded as a priority if the technological changes which are essential for our societies are to be brought about successfully.

#### Disadvantaged and special groups of population

15. Education for the handicapped and other groups of children with specific problems should be given or continue to be given particular attention both in rural and in urban areas.
16. Greater efforts should be made to provide handicapped children with special education care relevant to the particular educational needs of each child. With regard to those handicapped children who can effectively be educated in normal schools, efforts should be made to enable them to receive education in these schools, taking account of the real circumstances in each country. Wherever the situation so requires, facilities enabling them to attend school, including residential schools, should be provided for them.
17. It is necessary to ensure the equal right of immigrants' or refugees' children to primary education while enabling them to maintain links with their native language and culture.
18. Educational personnel working with handicapped children should receive appropriate education and training for this kind of responsibility.

#### Non-attendance, repetition and failure at school

19. Appropriate and efficient measures should be taken to reduce non-attendance, repetition of grades, failure at school or low achievement and other forms of wastage so as to attain universalization of primary education.
20. These measures may include:
  - (a) appropriate legislative regulations governing school attendance ;
  - (b) enlargement of the concept of free education to include free provision of school books and supplies ;
  - (c) material aid from public or private sources to children from the most deprived families ;
  - (d) due regard, particularly in the context of teacher training, to acquisition of a better knowledge of the living conditions and motivation of children from the most deprived families ;
  - (e) improvement of the content and methods of education and evaluation practices, making them more relevant to children's age, characteristics, abilities and interests;
  - (f) organization of support activities as an integral part of the educational structure;
  - (g) establishment of school communities bringing together children, teachers, parents and representatives of their social and cultural environment.
21. Parents should be made aware of their obligation to send their children to school. Measures should be taken to make them realize the importance of school attendance and to familiarize them with the development of the child and educational processes.
22. Any research into the causes of wastage in schools and any reflection on the solutions to be adopted deserve to be encouraged.

#### Teachers and administrators in primary education

23. At the level of primary education, the human and professional qualities of the teachers are the important factors that determine the success of education.
24. Adequate measures (including financial) should be taken to counter the shortage of primary-school teachers where such shortage exists, and to increase qualified teacher recruitment parallel with the expansion of primary education.
25. Measures should be taken to ensure that teachers have a satisfactory standard of living and that their role in society is properly appreciated. Their salaries should be at least equivalent to those of other professions and positions of equal importance. Special attention should be paid to teachers serving in remote isolated areas.
26. The greatest attention should be paid to the selection and training of teachers, and to their further improvement, with more care being taken to stress the development of the type of personality and profile necessary and appropriate for primary teaching.

The training of primary-school teachers and school administrators should be improved and developed by applying, for instance, such modalities of training as on-the-job training and supervision, correspondence courses, etc.

Programmes for pre-service training of primary-school teachers should stress the basic subjects and motivation for learning. Experimental courses and approaches should be encouraged.

In-service courses and seminars should be organized in order to keep teachers and administrators abreast of the renewal of the content and methods of primary education, with the possibility for them to follow free complementary training courses.

27. Appropriate measures should be taken to make educational administration more flexible and adequate with a view to achieving the goal of universalization of primary education through the best possible combination of centralized and decentralized approaches, at the discretion of each Member State. The role of inspection is mainly to evaluate the educational system and to make proposals for its improvement. This implies that persons discharging this responsibility should have the required high level of qualification and the resources necessary for the fulfilment of their mission.

## II. RENEWAL OF PRIMARY EDUCATION

### A. Generals principles and key concepts

The renewal of primary education should be guided by the following general principles and key concepts :

28. Renewal is a necessary condition for the improvement of the quality of primary education and an important factor in its universalization.
29. Renewal should be understood not as a particular reform at a particular time but as a process of continuing change, involving aims and objectives, structures, content, teaching methods, management of primary education, etc.
30. The process of the renewal of primary education should :
  - (a) encourage a close involvement and participation of all the parties concerned : educational authorities, teachers, parents, pupils, their respective organizations, and members of the community at large ;
  - (b) include revision of curricula and methods appropriate to the present trends in scientific and technological knowledge, new socio-economic conditions and environment, and psychological and educational knowledge about the child's development ;
  - (c) examine the use of educational technology in helping to develop a low-cost, high-quality learning programme, in the context of the new 'scientific and technological environment', but without encouraging the system to be subordinate to these resources ;
  - (d) mobilize non-conventional resources for realizing the goal of universalization of primary education in terms of formulating new incentives for participation, training of different types of educational personnel, etc.

### B. Practical measures and programmes

31. Primary education should provide each child with the knowledge, skills and values needed to assist his or her development in all its elements, physical, emotional, social, intellectual and spiritual.
32. Coherent action should be undertaken for the renewal of primary education in order to guarantee to all children a quality education responding to their own needs, their parents' expectations and the values of society and the individual.
33. The essential priorities of primary education should include the teaching of languages, with particular attention to the national languages or in some cases to the languages of the countries of origin of migrants' children. Efforts should be made to secure a balance between the various curriculum content areas and subjects, and to interrelate them.
34. Care should be taken when adding new material to the curricula to integrate it smoothly with the other activities and not to overload the children.

### III. APPROPRIATE INTRODUCTION TO SCIENCE AND TECHNOLOGY

#### A. General principles and key concepts

The process of an appropriate introduction to science and technology at the level of primary education should be guided by the following general principles and key concepts :

35. An appropriate introduction to science and technology is among the critically important elements in the renewal of primary education. As such, it should be developed in the light of scientific and technological progress, the all-round development of the child's personality, and the exigencies of individual and social life.
36. The introduction to science and technology is related to such broad issues as the need to create a favourable scientific and technological environment as well as to more specific issues such as : reform of curricula, use of science and technology in the process of primary education, technical skills to be acquired in order to understand the cultural value of productive and socially useful work, training and upgrading of primary-school teachers in science and technology.
37. The introduction to science and technology should aim at developing in children such scientific attitudes as creativity, a critical approach, objectivity and precision, helping them to acquire aptitudes and skills suited to their intellectual and physical development and related to their immediate environment, and basic scientific and technical knowledge.
38. The introduction to science and technology should focus on developing a constructive interaction between pupils and their environment, both natural and man-made, on developing positive attitudes of all pupils, irrespective of sex, towards science and technology, on making children understand and be sensitive to the purposes and social implications of new technologies and scientific applications, on developing sound attitudes to nature to promote the pursuit of studies or activities involving science and technology, and thus prepare the child for life in a modern society.
39. Specialists in science and technology, together with experienced teachers, should be involved in the elaboration of teaching plans and programmes so as to keep these abreast of developments in scientific and technological knowledge.
40. Where innovations are introduced into science and technology education, they should be progressive and undertaken initially on a pilot scale if appropriate so that their quality and effectiveness can be evaluated.

#### B. Practical measures and programmes

41. If it does not already form part of general education policy, a policy for scientific and technological education should be developed. Such a policy should promote, where appropriate, national mobilization for science and technology education by :
  - introducing or further developing an appropriate science and technology education in all primary-school curricula and for all children ;
  - creating a favourable context for the renewal and development of curricula, instructional materials and teaching methods appropriate to this kind of education ;
  - devoting the necessary human, material and financial resources to the effort ;
  - ensuring maximum co-ordination between school and out-of-school education and activities for the effective utilization of available resources ;
  - sensitizing those responsible for management and administration of education, teachers and teachers' organizations, and parents to the importance of science and technology education ;
  - initiating the teaching of computer science, in simple form, from the lower grades upwards, without any discrimination.
42. The approach to the teaching of science and technology should be as inter-disciplinary as possible so that the contiguous elements of knowledge from other subject areas may be used and thus contribute to the child's understanding of various aspects of science and technology.
43. Special attention should be paid to the use of the teaching methods appropriate to this level and type of education. The teaching of science and technology should be based as far as possible on active methods of teaching, pupils' observations, experimental methods, field trips and simple experiments. To complement school teaching, out-of-school experiences such as visits to workshops, factories, museums and exhibitions and extra-curricular activities with science and technology content may be organized.

44. The production of low-cost science and technology teaching equipment, using locally available materials and resources should be promoted. This would be made easier if each school were to establish institutional links with producing or servicing centres in its territorial area.
45. To facilitate the better acquisition of knowledge and skills by primary-school children, steps should be taken, in accordance with national customs and practice, to promote the preparation and production of textbooks and suitable teaching materials for science and technology education in national languages or in the children's mother tongues. Glossaries of terms required in science and technology education need to be developed in many national languages.
46. Programmes for pre-service and in-service teacher training should be further strengthened and renewed to include suitable content and methods for teaching science and technology. Future primary-school teachers should also be exposed to techniques of integrating concepts and ideas of science and technology into the content of other subject areas of primary education. In-service courses organized for primary teachers should include elements of content and methods of science and technology education. Courses should also be held for specialist teachers who may be charged with teaching science and technology in primary schools. Regular contact between teachers and scientific and technical circles in the locality would be desirable.
47. Seminars and workshops should be organized, where required, for primary-school teachers to develop ideas on organization of out-of-school activities which could contribute to science and technology education in the local context.
48. The introduction to science and technology should be based on and supported by research and evaluation in such areas as content, methods and equipment for science and technology education ; articulation between the science and technology education and the general development of the child ; and the contribution that a learning environment appropriate to science and technology can make to the mastery of basic skills.

#### IV. REGIONAL AND INTERNATIONAL CO-OPERATION

49. Co-operation at regional, subregional and international level is an important condition for the achievement of the objectives of the universalization and renewal of primary education. Developing countries are at a great disadvantage in regard to scientific and technological progress. It is therefore important that multilateral and international co-operation should be intensified and enhanced in these fields. The increasing role of bilateral and regional co-operation should be particularly stressed – the exchange of ideas, information and materials at the subregional and regional levels may provide an important input to the renewal process in all its aspects.
50. Bilateral, multilateral, subregional, regional and international co-operation should include:
  - (a) systematic exchange of ideas and information through the organization of seminars, workshops and other meetings, through the preparation and dissemination of appropriate publications, materials and documentation, and through the further development of educational documentation and information centres and networks ;
  - (b) systematic exchanges of personnel – pupils, teachers, prospective teachers and other educational personnel – through fellowships, travel grants, etc.;
  - (c) intensification, at the regional level, through the regional networks of educational innovation for development, through Unesco National Commissions, or through other means, of common research projects, particularly on issues related to science and technology education ;
  - (d) whenever appropriate and desirable, joint development for common use by several countries of a region and/or with a common language, of core curricula, textbooks, and instructional equipment and materials ;
  - (e) promotion of the creation of regional structures, where appropriate, for training and research in administration and planning of the development of primary education based on a global strategy aiming at the development and renewal of primary education and at the same time at the eradication of illiteracy.
51. Within the framework defined by this special theme of the Conference, Unesco should endeavour to :
  - (a) encourage exchange among Member States of information necessary to facilitate the universalization and renewal of primary education ; in particular through the International Bureau of Education ;
  - (b) through various forms of technical co-operation, support, if requested, the development of suitable textbooks, equipment and other instructional materials for primary schools, particularly the development of inexpensive materials and equipment for the teaching of science and technology in primary schools;

- (c) continue to prepare resource materials and to develop manuals for teachers of science and technology at the primary level ;
  - (d) organize conferences, meetings and seminars at the international and regional levels on issues of primary education, with a view to achieving its universalization ;
  - (e) continue to develop in a co-ordinated manner its activities for primary education in the different regions and to relate its activities with the programmes of other existing organizations at international and regional levels ;
  - (f) review and publicize the results of experiments in integrated science teaching which are available in different countries ;
  - (g) continue its actions with a view to ensuring the full enjoyment of fundamental rights to education for the population groups that are deprived of those rights, for one reason or the other, throughout the world, for reasons of international factors.
52. The International Bureau of Education, in co-operation and co-ordination with other units of Unesco, should :
- (a) within the International Network for Educational Information (INED) give special attention to promoting and facilitating the exchange of information on issues of primary education, giving particular consideration to developing and newly independent countries ;
  - (b) further develop its computerized educational documentation centre, and its linkages with national centres, so as to enrich the data base with more complete information from Member States, particularly on primary education, and to make the data base available in usable form to educational authorities and documentation centres in Member States ;
  - (c) give more attention to primary education in its programme of studies, documentation and information, and promote the broader dissemination of most advanced experiences in this field, during the 1986-1987 biennium.