The objectives of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) meeting described in this document were: to provide a forum for the exchange of information on the introduction of new contents into teacher training curricula and on innovative experiments undertaken in the European region; to make recommendations concerning the establishment of common approaches to the development of a general methodology in teacher training which could be applied to all new contents; and to promote cooperation in the European region and elsewhere. The final report summarizes presentations on the following topics: (1) consumption, health and environment (Denmark); (2) new technologies in special education (Spain); (3) water in a changing world (Yugoslavia); (4) school and the world of today (Portugal); (5) the European dimension in education (The Netherlands); and (6) international education (Germany). Also included are general discussions of papers, main conclusions, and suggestions for future action and regional cooperation. Four appendices consist of a list of participants, an agenda, a list of documents, and a reference paper giving an account of ongoing research. (LL)
EXPERTS MEETING
on
TEACHER TRAINING AND
NEW CONTENTS IN TEACHER TRAINING CURRICULA
FINAL REPORT

New Technologies in Special Education

Water in a Changing World

School and the World of Today

The European Dimension in Education

International Education

Consumption, Health and Environment

Organized by the Teacher Education Section,
Division of Higher Education and Research
UNESCO

Paris, 7 October 1991
English Original
Distribution limited

EXPERTS' MEETING
on
TEACHER TRAINING AND NEW CONTENTS IN
TEACHER TRAINING CURRICULA

UNESCO, Paris, 16-18 September 1991

FINAL REPORT

Teacher Education Section
Division of Higher Education and Research

ED/91/WS/55
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EXPERTS' MEETING
on
TEACHER TRAINING AND NEW CONTENTS IN
TEACHER TRAINING CURRICULA
FINAL REPORT

1. **INTRODUCTION**

1. An Experts' Meeting on Teacher Training and New Contents in Teacher Training Curricula was held at UNESCO Headquarters in Paris from 16 to 18 September 1991.

2. **The objectives of the meeting were:**

   i. **To provide a forum for the exchange of information on the introduction of new contents into teacher training curricula, and on innovative experiments undertaken in the European region.**

   ii. **To make recommendations concerning:**

      a) the establishment of common approaches in the development of a general methodology in teacher training which could be applied to all new contents, and

      b) the promotion and the development of cooperation in the European region as well as elsewhere.

3. The meeting was the follow-up to the inter-regional seminar organized by UNESCO in Brasilia in November 1987 (Implication: for Teacher Education of Incorporating New Contents into Curricula) which suggested the launching of pilot projects at regional level. It was also part of an activity provided for in paragraph 01249, in the Approved Programme and Budget for 1990-91 concerning "Studies
on the effectiveness of teacher-training programmes and institutions; support to regional projects aiming at innovations in teacher training and to networking among teacher-training institutions".

4. Prior to the meeting, the experts from the European region undertook research on new contents in their respective countries at secondary level and their final reports constituted the main working documents for this meeting.

The themes treated by the experts from six countries of the European region were the following:

"Teacher Training and Consumption, Health and Environment", prepared by Denmark.

"Teacher Training and International Education", prepared by Germany.

"Teacher Training and the European Dimension in Education", prepared by the Netherlands.

"Teacher Training, the School and the World of Today" prepared by Portugal.


5. The reference documents for the meeting were:

UNESCO publications on population, education, environment and special education and the research-studies from the six European countries, which were exhibited.

The basic documents (Nos. 1 to 6)

The Reference Paper (No. 7)

A Selected Bibliography of UNESCO's activities in the field of new contents since 1980. (No. 9)

The final report of the meeting on "Interdisciplinarity in General Education" held in July 1985.
6. The meeting was attended by experts from six countries from the European region and an observer from the German Commission for UNESCO. The list of participants at the meeting can be found in Annex I.

7. In his opening address Mr. Ordoríez, acting Assistant Director-General for Education drew the participants' attention to the objectives of the experts' meeting and the need for programme activities with a view to enhancing the quality and pertinence of education, which, it was recalled, had been a long-term endeavour ever since the creation of UNESCO. The fact that this Organization had a great deal of experience in the fields being discussed was a great advantage as was mentioned in the "Reference Paper" prepared for this meeting as well as in the "Selected Bibliography".

8. Mr. Ordoríez also drew attention to the necessity of training the appropriate personnel needed to face the on-going societal changes in the world. He furthermore stressed the need for inter-regional cooperation with a view to comparing experiences, to assisting one another in research studies and to forming a network of educational institutions dealing with new contents in the region. He also reminded participants that this activity could be considered a follow-up to the World Conference on Education for All (Jomtien, 5-9 March 1990).

9. Specialists from UNESCO's Secretariat present at the meeting took the opportunity to stress the importance these discussions would have in their own programme activities.

10. The meeting elected the following office-bearers:

   A facilitator, Ms. Milagros Sánchez de la Blanca.

   Two rapporteurs, Messrs. H. Van Dijck and V. Mostrov.

   English was the working language of the meeting.

II. PROCEEDINGS

11. The Agenda having been approved, a member of the Secretariat made reference to the background to this meeting and to the challenging role that teacher education had to play in on-going societal changes.

12. In accordance with items 5 and 6 of the Agenda the participants started by introducing their papers, the summaries of which are given hereafter in order of presentation.

Consumption, Health and Environment (DENMARK)

The aim of this in-service course by the Royal Danish School of Educational Studies was to respond to the anxiety and worries of the next generation and to
transform this into an ability to act. The concern of the course was to extend the traditional consumer concept, where the consumer is regarded as passive and someone to be manipulated, and to examine the options of the modern consumer. The links between production and consumption, private life and working life, health and environment, developing countries and industrial society, and between individuals and society were specially emphasized.

The pedagogical aim of the course was to encourage teachers to reflect on pedagogical areas such as the quality of knowledge, the relationship between knowledge and action, and the relationship between individuals and society.

The following aspects were treated in the discussions:

i. There is a contradiction between the ideal standpoint that the consumer is free to act and the realities of the consumer market. This contradiction was integrated in the teaching. Pupils were made aware of the role of advertisers and the limitations of the concept of the free market.

ii. Advertisers produce such a great amount of information that, as a result, it does not inform consumers any more. Therefore, it is important to teach pupils how to analyze advertisements so that they know how to come to terms with them. This is shown in the paper.

iii. The role of the consumer in Western societies is different from that of the consumer in developing countries, who is not used to a wide range of products. But consumer education is also important in developing countries, both because manipulation is already taking place concerning consumption and because the consumer society is tending to develop all over the world.

At this point, a member of the Secretariat made the following remarks concerning environmental education:

- Environmental education is a holistic field.

- Environmental education is a process of acquiring knowledge and attitudes and of learning responsibilities.

- In its 16 years of experience with environmental education UNESCO has disseminated a great deal of information through its papers and publications.

- The training of educational personnel is given priority, because the teacher is the key to change.

- Finally, five important dates were mentioned concerning UNESCO’s involvement in environmental education.
New Technologies in Special Education (SPAIN)

This case-study was directed at the introduction of new technology in special education, with the aim of solving the communication problems of pupils with special needs. An extensive in-service course was set up to train teachers in the use of computers from the elementary level to the use of selected programs in special education.

In the discussions, the following aspects were highlighted:

- New technologies other than computers can also be useful.
- New technologies give access to the curriculum not only to pupils with special needs but also to other pupils.
- It is true that these facilities encourage teachers to cooperate in the classroom.
- It is important to know when a game becomes a learning process and also to know if motivation decreases after a while.
- The use of computers changes the role of the teacher from that of an actor to that of an observer of the learning process.
- It is important to give feedback to the developers of software so that it can be improved.

Water in a Changing World (YUGOSLAVIA)

Problems of drought and water pollution and the need for the distribution of water have been very important in Yugoslavia recently. At the same time, educators have felt a need for students to learn about world problems. It was under these circumstances that the project on water was born.

Although Yugoslav universities are oriented more towards individual disciplines than multidisciplinarity, those in charge of the project wanted to form multidisciplinary groups to produce materials. The project was very successful in terms of the attention it received from the local and even national press and also in terms of the motivation and appreciation it created among the participants.

In the discussions, the following aspects were treated:

- In such projects about world problems, it is very important to help the students themselves to find solutions.
- When children enter society, it is important that they do not blame the wrong people for problems.

- In order to stimulate teachers to teach more about environmental issues, it is necessary to have an in-service model of teacher training with the possibility of courses lasting several weeks. Initial teacher training should also pay more attention to environmental issues.

- In a multidisciplinary project, it is important to provide thorough background information for the participating teachers. The teachers need to see the links with their subjects.

School and the World of Today (PORTUGAL)

The new Setubal School of Education offers initial teacher training for preschool, primary and secondary levels and it emphasizes the relationship with society by means of intercultural activities and seminars on contemporary issues.

The GIMA Project is an action-research project concerned with in-service teacher training. It started with the formation of interdisciplinary project-teams in schools, on a voluntary basis. These teams developed projects that linked school, town and the surrounding world.

In the first phase of teacher training, the learning strategies were identified, objectives were discussed, a project was conceived and materials were developed both for teachers and for pupils to use in the classroom.

Some of the projects focused on community activities. The results were also presented to the community.

In the discussions the following aspects were raised:

- The relationship between school and community can be reinforced by inviting guest-speakers.

- The connotation "community-oriented" does not mean that the focus is on local problems only; it can be on European or global themes as well.

- The GIMA Project in its second phase was made possible in spite of lack of government funds for in-service training. It was made feasible by enthusiasm and some external funds.

- In a multidisciplinary project, it is necessary for teachers to give part of their time to the project.

- It may be that themes are beyond the competence of teachers so they have to be assisted by trainers.
- In a project, pupils not only acquire knowledge, they also develop skills and attitudes.

- Developing projects is a way of introducing new contents with links with society, even with a minimum of funds and a small group of teachers.

- The development of accurate materials is an essential part of the programme.

The European Dimension in Education (the NETHERLANDS)

The European dimension in education is important, given the historically unique process of European integration into a supra-nation. The idea of the nation-state is to be replaced by a new concept.

European integration not only refers to a political and economic process, it also means that socially, psychologically and culturally, nations are becoming more interrelated. Norms and values are becoming more international.

The consequences for education are that:

a) contents must change,

b) exchange-programmes must be stimulated,

c) language teaching must be directed towards communication.

The case-study showed itself to be a method of in-service teacher training with a European dimension.

In the discussions, the following aspects were raised:

- A European approach which replaces a nation-oriented (ethnocentric) approach must not lead to a Eurocentric approach. Europe must be open to the rest of the world.

- It is difficult to develop a history of the European nations. The history of Europe is the history of the people in Europe, which goes beyond nations.

- The conditions under which in-service teacher training is organized have a great impact on the results that can be achieved. If there are few facilities for teachers, they are not willing to invest a great deal of time and energy. This is also related to the attitude of the teacher and his or her status in society.
International Education (GERMANY)

Reference was made to the readjustment recently submitted to the Final Report on the UNESCO project, concerning the incorporation of new international educational content in teacher training programmes implemented at the Pedagogical University of Erfurt in 1989.

The readjustment took account of the fundamental political and social changes that have taken place in the former German Democratic Republic. From the present point of view, selected results of the project, especially concerning methodology, were considered, e.g. German language and literature teaching, the selection, the perception and comprehension of texts with an international dimension, art education, the preparation of methodological collections by all students during their studies of artistic works, natural sciences and technological education, and dealing with global problems such as the environment, AIDS and racism, among others.

The project showed the potential for improving international education in all subjects. In the future, not only social subjects but also natural sciences and technological education should be emphasized. Reference was also made to various UNESCO materials for improving international education. The need to facilitate access to these materials (by teacher trainers and students) was underlined.

In the discussions, the following points were raised:

- According to the UNESCO recommendations of 1974, international education can be described in terms of humanistic values, basic human rights, peace-education, mutual human understanding, and multicultural education.

- International education has also resulted in textbook-analysis to avoid racist and ethnocentric texts. UNESCO has developed criteria that have been used in UNESCO-associated schools. At the moment, UNESCO is trying to introduce new contents, stressing that cultures can be enriching for one another. This concerns textbooks as well as curricula.

13. Even though each participating country shows different concerns in the case-studies, there seem to be some common grounds for:

- the integration of new contents, rather than merely adding them to the curriculum. This task should involve the Government, curriculum planners and curriculum developers.
- the need to develop team-work among teachers as a means of facilitating interdisciplinarity. *The need for teachers to work with this approach in mind has also been mentioned.*

- research methods and techniques applied to observation and social enquiry. *In this respect, it was suggested that the school be extended to the community, with a view to alternating theory and practice, and the important role played by a resource centre be recognized.*

- study trips, visits, and practical experience. *This would be a valuable way of applying what is being studied.*

With regard to materials, in some cases they were collected and made up by the teachers whereas in others ready-to-use materials, were provided.

III. **GENERAL DISCUSSION**

14. It was generally felt that over the last few years we have all experienced a multiplicity of events characterized not only by their complexity and their rapid development but also by their spatial dimension. Compartmentality, that is to say fragmentation of knowledge, which was one of the features of school curricula, may have to yield to global problems in a more holistic approach.

15. With a view to facilitating an exchange of views, those reporting to the meeting concentrated the discussions on four main aspects, the Teachers' Role, the Institutional Aspect, Programmes, and Materials.

A synthesis of the discussions is presented below:

i. **The Teacher's Role**

Teachers playing the role of facilitators of learning, instead of being sources of knowledge, may be considered as one of the new models that the educational system should apply.

Teachers must be seen as educators, therefore not only general knowledge, but also attitudes and skills should be required in order to incorporate any new content.

Teachers should therefore be capable of observing the changes in society in order that they may take responsibility for the school's reaction to these changes.

Teachers should also be capable of introducing innovative strategies when dealing with new contents.
Although competition and selection would appear to be considered as prevalent values in certain cases, teachers should be receptive to values such as cooperation, solidarity and team-spirit.

With regard to the teacher's responsibility in curriculum change, he or she may be seen as a researcher. As such, he or she should ensure the linkage between curriculum and teacher development since these two elements may be considered as one and the same activity.

The role of local media in teacher training education (that is, media used as resource-media) is also an important factor to be taken into account.

ii. The Institutional Aspect

If society is going through change, there is thus an urgent need for education to follow. Teacher training institutions should therefore be in close interaction with the surrounding community. In this respect the participatory role of parents is relevant in school activities.

With a view to responding to societal needs, it has been emphasized that teacher training institutions should have a certain degree of freedom to develop their own curricula. In this context teacher education has a challenging role to play inside the educational institution as well as in the community as a whole.

When dealing with pre-service and/or in-service training of teachers, teacher training institutions should pay attention to the existing links between theory and practice.

Furthermore, frequent alternation of periods of study at the teacher training institution and periods of work at school is to be encouraged.

Therefore, in-service training should be considered, within the framework of life-long education for teachers, as an element of their regular teaching profession. Yet, teachers should be encouraged to participate in in-service training activities e.g. by provision of facilities and whenever possible some kind of formal recognition.

The production of materials has been considered an important element in teacher training. Thus the need for the creation of "resource centres" within the teacher training institution is to be taken into consideration. These resource centres should favour research by teachers.
iii. Programmes

Interdisciplinary and multidisciplinary approaches are both desirable and useful in teacher training. The concrete form of this approach must be related to the programmes in primary and secondary education. It is therefore (among other means) through more flexible curricula at all levels that the school may become relevant to the problems and activities of contemporary societies.

Given that new contents continue to arise, the participants asked themselves about the need to establish criteria when selecting such contents. A flexible framework should be established to allow the introduction of the important issues of today.

Teachers and administrators must share responsibility for the development of appropriate teacher training programmes. They can be substantially assisted by experts who can provide feedback on programme development.

It is important that educational innovation be guided by official institutions which are specialized in a given area.

As a result, cooperation and the exchange of materials between teacher training institutions should be stimulated. It might be useful for several institutions in the region to develop a cooperative training activity.

It was stated that UNESCO is expected to be a source of inspiration concerning new contents. Nevertheless it should be cautious in preparing general guidelines.

iv. Materials

As mentioned above teachers should participate in the production of teaching materials. This could be developed by national and local pluridisciplinary teams with a view to considering economic as well as social values.

Materials should include not only textbooks but also slides, video and software and so on and teachers should be trained in the production of material.

Materials should also stimulate people to work by themselves, greater emphasis being given to self-instruction and independence.

The dissemination of materials could be very useful for that of new contents. Therefore it would be advisable for teaching materials to be easily available and inexpensive.
IV. MAIN CONCLUSIONS

If the challenging role of education is to follow the on-going changes in society, the experts at the meeting felt that new strategies should be devised concerning particularly teacher training activities.

Some of them are described below:

Even though the dissemination of information is felt to be necessary, the experts recognized that careful selection should be made. The exchange of experts between institutions could be another form of dissemination of policies and strategies. In this context, the review of the syllabuses of teacher training institutions can help other countries to innovate. Furthermore, the experts recognized that every country has not only a great deal to contribute but also a great deal to gain. In the case of countries with little access to information, UNESCO could help network-building in order to favour exchange of information.

It was recalled that problem-solving had not been put into practice in content and methodology up to the present. However, implementation of suitable policies and selection of appropriate contents would result in greater freedom for the students and the community as a whole.

Case-studies such as the ones submitted to the experts' meeting appear insufficient in themselves to fulfil the research requirements. The experts felt that it was necessary to extent research on innovation strategies that are used in the countries of the participants. For example, workshops to train teachers in the development of new contents could be very useful.

It was recognized that scientific materials have not been very much used. Teacher training programmes should therefore pay more attention to the development of scientific thinking and skills.

Up to now the school has remained isolated from the immediate environment. The experts recognized the need for cooperation with the outside world, which in its turn should be given greater emphasis in teacher training. That is, school and the environment should become more closely interrelated.

These main conclusions lead to the three following suggestions that the participants at the experts' meeting made to the international community concerning future action and regional cooperation:
V. **SUGGESTIONS FOR FUTURE ACTION AND REGIONAL COOPERATION**

1. Development of a network of institutes working on innovative strategies concerning the introduction of new contents in teacher training curricula.

   The main objective of these projects is, on the one hand, the production of a handbook for teacher trainers on those innovative strategies and, on the other hand, the organization, execution and evaluation of a workshop for teacher trainers, on the same subject.

2. Establishment of resource and research centres

   In these centres the teachers would participate in the production and dissemination of training and teaching materials related to new contents.

3. Promotion of methodologies for the use of information technology.

   This would facilitate curricula innovation and in so doing teaching methods would be improved (particularly relevant in the case of children with special needs.)
UNESCO EXPERTS' MEETING
on
TEACHER TRAINING AND
NEW CONTENTS IN SCHOOL CURRICULA
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EXPERTS' MEETING

on

TEACHER TRAINING AND
NEW CONTENTS IN SCHOOL CURRICULA

UNESCO, Paris, 16-18 September 1991

AGENDA

ANNEX II

1. Opening of the meeting.
   Welcome speech by Mr. V. Ordoñez, Acting Assistant Director-General for Education.

2. Introduction of the participants.

3. Election of the Chairman and Rapporteurs.

4. Main trends, policies and problems of the implications for Teacher Training of incorporating new contents into school curricula.

5. The testing of programmes and materials for the introduction of "New Contents" into Teacher Training activities. Presentation of country reports.

6. Identification of common approaches in the introduction of "New Contents" into Teacher Training activities.

7. Suggestions for future action and regional cooperation.

8. Approval of the draft report.

9. Closing of the meeting.
UNESCO

EXPERTS' MEETING
on
TEACHER TRAINING AND
NEW CONTENTS IN SCHOOL CURRICULA
UNESCO, Paris, 16-18 September 1991

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Document No.4  PRACTICAL INFORMATION NOTE
Document No.5  PROVISIONAL LIST OF PARTICIPANTS
Document No.6  LIST OF DOCUMENTS
Document No.7  REFERENCE PAPER
Document No.8  CASE-STUDIES BY COUNTRY
Document No.9  SELECTED BIBLIOGRAPHY
Document No.10 FINAL REPORT

REFERENCE DOCUMENTS


Final Report of the meeting on "Interdisciplinarity in General Education", held in July 1985.
This is a Reference Paper giving an account of on-going research in some countries as well as of work undertaken by UNESCO in the field of new contents and of the quality of education in general. The list of UNESCO's activities is nevertheless not exhaustive.

This paper is therefore intended to serve as background reading for the experts' meeting. In fact, the main documents which the participants will have to discuss are the six research cases undertaken in their respective countries prior to this meeting.

In so doing, we expect to allow participants to share their experiences concerning the introduction of new contents with a view to establishing common approaches, that is to say, a general methodology, one which could be applied to all new contents.

So better information and dissemination of case-studies in the Europe region is one of the main objectives of this experts' meeting. This would also mean better cooperation in the future between research institutions in the Western and Eastern European countries.

We thank very much the participants at this meeting for their contribution to a better understanding of the subject in question.
I. THE IMPERATIVES OF CHANGING SITUATIONS

1. Over the last few years we have all experienced a multiplicity of events characterized not only by their complexity and their fast development but also by their spatial dimension. Compartmentality, that is to say fragmentation of knowledge, which was one of the features of school curricula, may have to yield to global problems in a more comprehensive approach, in a kind of common destiny for the whole world.

Given this, it is becoming more and more difficult for us, as citizens of a given society as well as educationalists, to cope with demanding new situations. This may be so, unless appropriate steps and rapid action are taken to face these new societal challenges. If society is going through change, there is thus an urgent need for education to follow. "Teachers have to be brought inside the process of change in order that they may experience first-hand responsibility for the school's response to external pressure to make such changes". 1

2. As a way to handle on-going societal changes, well-defined objectives are recalled by the Director General in his opening remarks to UNESCO's Third Medium-Term Plan for 1990-1995:

"Respect for human rights and the equal dignity of peoples; priority for development, the rational use of resources and environmental protection and concern for those who are most destitute and most vulnerable". Concentration, concerted action and interdisciplinarity are mentioned as the means for achieving these objectives.

3. Moreover, the international community represented at the 25th Session of the General Conference of UNESCO (October/November 1989), conscious of the new demands facing its educational systems, approved a Medium-Term Plan of which Major Programme I concentrates on three priorities in the Education Sector:
   a. Towards Basic Education for All
   b. Education and the 21st Century
   c. Promoting and Supporting Educational Development.

   Among the activities retained under Major Programme 1.2, "Education for the 21st Century", specific mention is made of education for the quality of life, and projects related to education and community and on linking educational contents and curricula to issues related to health, drug abuse and the prevention of the Acquired Immune Deficiency Syndrome (AIDS).

4. Another important attempt is to bring education and the world of work closer together by favouring retraining and

lifelong education, by establishing closer links between education and training and through activities such as curriculum reform, the production of teaching materials and the training of specialized educational personnel.

Furthermore, the connection between education and the world of work (through creative collaboration between educational institutions, business, industry and establishments concerned with science, public health and culture), was one of the main recommendations of the Third Conference of Ministers of Education of Member States of the Europe Region. (Sofia, 12-21 June 1980).

5. In this new situation teacher education has a challenging role to play inside the educational institution, of whatever level it be, as well as in the community as a whole. How can teacher education reach its objectives? One alternative would be raising its level to make it better adapted to new developments and facilitating access to learning, rather than following an encyclopedic programme of studies.

6. It is therefore (among other means) through more flexible curricula at all levels, from primary to higher education, that we may achieve the objectives of quality and pertinence of education.

The trend towards more flexible curricula began in some countries as early as the 20's and 30's, when curriculum specialists started asking that the curriculum be made relevant to the problems and activities of contemporary societies.

Today, on the eve of a new century, this recommendation would seem of the utmost urgency.

Michael Apple, Curriculum Specialist at the University of Wisconsin, Madison, predicts that more coordinated efforts between educators and the wider society will be required in the next two decades in order to assist in giving solutions to many problems in the curriculum. The author of "Curriculum in the Year 2000" goes on to reaffirm that curricular content should give people the ability to interpret social change and to reflect critically on their daily lives. "Programs will be successful only to the extent that students feel that the school has something to offer - both now and for the future". ²

II. BACKGROUND TO THE MEETING

7. The present experts' meeting is the follow-up to a pilot project initiated with the Brasilia Seminar held in August 1987 within UNESCO's Programme and Budget for 1986-87 under Para 04312: "Organization of an interregional seminar on the implications for pre-service and in-service training of

teachers", of incorporating new contents into curricula such as: international education, the environment, population, drug abuse, the school and the world of work and special education, among others.

This meeting is also part of the 1990-91 Approved Programme and Budget, para 01249 concerning the effectiveness of teacher-training programmes and institutions: support to regional projects aimed at innovations in teacher training and to networking among teacher training institutes.

8. One of the priorities mentioned in the Brasilia Seminar was the study of "interdisciplinary themes".

An interdisciplinary approach is thus recommended when dealing with new contents.

We recall that in the "interdisciplinary approach" several subjects converge in a common theme, for example in any of the six new contents submitted to this meeting as well as any other theme such as drugs, AIDS, population, etc. In the "multidisciplinary approach", the new contents are incorporated in each discipline, for example the theme of population or the environment is studied in each subject.

A. WHAT NEW CONTENT IS TO BE INTRODUCED?

9. As early as 1859 Herbert Spencer asked: "What knowledge is of most worth?" Teachers of every generation may ask the same question. The answer will certainly depend on the choice of values made by the teacher and by the society which may constitute the philosophical foundations of curriculum decision-making.

B. SELECTING THE APPROPRIATE SETTING

10. Which subject-matters would favour a better integration of new contents? Would it be the exact sciences, or the natural sciences, or the social sciences?

Most studies state that the exact sciences are especially concerned in most reforms or innovations of the curriculum, or more precisely of contents.

III. NEW CONTENTS   NEW CHALLENGES

11. The six participating countries at this experts' meeting (Denmark, Germany, the Netherlands, Portugal, Spain and Yugoslavia) have undertaken research in their respective institutions and their findings are the reports which are being submitted to the meeting on the introduction of new contents in teacher training curricula.
Even though each participating country shows different concerns taken from the case-studies (Consumption, Health and Environment, International Education, European Citizenship, the School and the World of Work, New Technologies in Special Education or Water in a Changing World), there seem to be some common grounds for:

the integration of new contents, rather than merely adding them to the curriculum. This task would involve the Government, curriculum planners and curriculum developers.

the need to develop team-work among the teachers as a means of facilitating interdisciplinarity. The need for teachers to work with this approach in mind has also been recommended.

research methods and techniques applied to observation and social enquiry. And in this respect, it is recommended that the school be extended to the community with a view to alternating theory and practice, and the important role played by the resource person be recognized.

study trips, visits, and practical experience as a valuable way of applying what is being studied.

with regard to materials, in some cases they were collected and made up by the teachers whereas others felt it is essential to provide ready-to-use materials. This was considered to be related to the development of a new core curriculum.

In the interdisciplinary approach the structures, the methodology, and the materials are of the utmost importance for teacher training. Interdisciplinarity as well as multidisplinarity demand in fact relevant in-service teacher training.

Our main concern is not only to establish steps and procedures for teacher training in incorporating new contents in the curriculum, but also to know the teachers' role.

In his article about "Teachers as Researchers" J. Elliot is particularly interested in the role of teachers in curriculum change. He puts forward the idea of teachers as "researchers", as one solution to the problem of curricula implementation and an interrelation between curriculum and teacher development. Curriculum and teacher development are thus seen as one and the same activity.3

IV. UNESCO'S ACTIVITIES IN MEMBER STATES

12. UNESCO's activities in the field of the introduction of new contents are in the form of a long-term endeavour that has led to the organization of several seminars, as well as research, case-studies and publications of significant importance in this field.

UNESCO has recently carried out international comparative studies on trends and innovations in curriculum reforms, the results of which are published in: "The Contents of Education", (1987). 4

The authors consider that training will be the most important form of investment in the year 2000; education will therefore be directed towards skills and creativity. Training would be based on the capacity for self-instruction and self-evaluation, giving students a taste for innovation and participation.

The study also foresees for the years ahead:

. More frequent alternation of study periods and of work: lifelong education

. More emphasis on the quality and the internal effectiveness of education.

. Greater emphasis on self-instruction and on independence and creativity,

. A renewal of individual or private initiative replacing institutional assistance in the educational field as well as elsewhere.

13. In disciplines such as population and environment, to name only two of many, UNESCO has studied teacher training related to these two types of contents for a considerable time now. Within the international community there is a trend towards the introduction of these two subjects in teacher education.

Mention should be made of the "International Congress on Population, Education and Development" in the European Region, organized by UNESCO and held in Hamburg, Germany from 9 to 12 April 1991. 5


With regard to teacher training the participants agreed that population education (although other new contents could perhaps be approached in the same way) is first and foremost an interdisciplinary domain.

On these grounds, they also agreed on the necessity of giving priority to training teachers of different disciplines so that they can "infuse" the population themes into their own teaching practice.

It was also noted that a certain interest on the part of the teachers is necessary to give priority to dealing with the subject of population in their classes.

The participants at the Hamburg Congress also emphasized the importance of creating diversified educational tools to facilitate teachers' initiatives in their presentation of population phenomena.

With regard to materials, it was recommended that they be developed by pluridisciplinary teams of demographers and teachers working at different levels, and pedagogues and practitioners as well.

With an aim to developing regional cooperation it was recommended that approaches to teacher training be compared as well as the results of experimentation, and that the materials produced in each of the countries of the region be exchanged.

The above-mentioned recommendations could be an asset for our own meeting on the introduction of new contents. In fact we may be able to devise further attempts to make progress in the field of exchange of materials, experiences, teacher training methodology and the scope of teacher training in the subjects submitted to this experts' meeting.

14. A discussion guide was also prepared by UNESCO on "Strategies for the Training of Teachers in Environmental Education". The goal of any education programme in the field of the environment (this could also apply to any other contents) should be to develop competence.

General knowledge, attitudes and skills would be necessary forms of competence to incorporate the environmental dimensions in an educational programme. Among the strategies basically needed to develop this competence one could name: required courses in the given contents for pre-service teachers; in-service workshops, graduate courses and degrees, staff meetings, conferences, institutes, and the development of specialized teacher centres.

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6 UNESCO "Strategies for the Training of Teachers in Environmental Education: A discussion guide for UNESCO Training Seminars on Environmental Education. 1987."
In the matter of the training of teachers mention is made in the discussion guide of a UNESCO activity, "Education and the Challenge of Environmental Problems", where it has been found that most training programmes suffer in fact from the lack of a holistic conception and tend to lay emphasis on specialization and to encourage too narrow a perception of reality. They do not take into account modern educational ideas based on participation, research and experimentation or of methods of evaluation indispensable for teacher training education.7

Finally, the conclusions of the "Strategies for the Training of Teachers" show that care must be exercised to see that the teacher has sufficient competence to be an effective (environmental) educator. The degree of competence required in various areas will depend on the grade level, subject matter and target population to which the teacher is assigned.

15. The "lifelong education" concept is as relevant today as when the Commission for the Development of Education, headed by Edgar Faure, encouraged this kind of education in its book "Learning to Be". (1971). One of its main ideas was the formulation of education policies.8

16. Among the basic documents for this meeting you will also find a "Selected Bibliography" giving an account of seminars, meetings and publications concerning new contents in teacher training curricula. These and many other contributions which we mention hereafter reveal UNESCO's permanent concern when dealing with new contents, even more, by encouraging activities aimed at the development of the quality and pertinence of education within its Member States as well as in the community at large.

IV. OTHER EXAMPLES

17. An International Symposium was organized in Paris, 1980, on the Evolution of the Content of General Education over the Next Two Decades. The discussions showed that the topic of "New Contents" had become a subject of experimental research and a matter of deliberation for research workers as well as for decision-makers and planners.

18. The concern for new contents is also present in other regions such as the Latin American region. We may mention UNESCO's Major Project in the field of Education for Latin America and the Caribbean where special attention is given to the

renewal of the content, methods and structures of school and out-of-school education and their adjustment to the present needs of day-to-day life and the foreseeable requirements of society".9

The cultural and linguistic unity of the countries of this region might favour the adoption of a common approach.

19. The Conference of Ministers of Education and Those Responsible for Economic Planning in African Member States (Hararé 1982) concentrates on contents such as cultural identity, the use of African languages in teaching, the introduction of productive work into schools and the teaching of science and technology.10

20. With the international view still in mind we may refer to the International Symposium and Round Table held in Beijing, China, in November/December 1989.

Several countries submitted contributions which show concern for the "Qualities Required of Education Today to Meet Foreseeable Demands in the Twenty-First Century".11

Sweden, for example, proposes a model of a social network for the quality of education: the family, the teacher, the peer group and the community, and mutual expectations and responsibility for each other in enhancing the quality of education. In this context it is recognized that UNESCO could play a vital role.

Australia is developing a new programme called "Visions for the 21st Century". That is, the capacity to be adaptable, and to commit ourselves to a system of lifelong education.12 / 13

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12 Among studies undertaken on the "Future of Education" it is worth mentioning the "International Symposium on the Evolution of the Content of General Education over the Next Two Decades", Paris, 7-11 July 1980. This Symposium was one source of inspiration for future activities undertaken under UNESCO's sponsorship.
Other new contents which were considered at the Beijing International Symposium were:

- Moral education
- The need to enhance the quality of teachers.
- The quality of education through effective learner-teacher interaction.

21. UNESCO has undertaken a series of conferences and meetings to discuss the development of cooperation in Europe. In this respect special mention should be made of the CORDEE Programme (Cooperation for the Renewal and Development of Education in Europe).

Between the priority activities to be pursued by CORDEE are the follow-up of the World Conference of Education for All and the renewal of educational content on the eve of the 21st century. These two fields of action were recommended by the European Member States and organizations meeting last February in Paris, at the Regional Consultation Meeting.

22. UNESCO in cooperation with ILO has also developed an instrument concerning the Status of Teachers. We can mention the International Recommendation of 1966 which is still relevant to our field of concern:

"Education from the earliest school years should be directed to the all-round development of the human personality and to the spiritual, moral, social, cultural and economic progress of the community, as well as to the inculcation of deep respect for human rights and fundamental freedoms..."15

V. WHAT ARE THE PROSPECTS?

23. A new philosophy of education for the 21st century may seem to be needed.

Among the new patterns that the education system should seek are:

a. Recognition of the educating role of parents in early childhood.

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13 In planning for the future of education several countries of the Asian region include "A Vision of Education for All by the Year 2000" mainly through universalization of primary education, continuing education and eradication of illiteracy.


b. Increased integration between the school and the world of work.

c. Teachers playing the role of facilitators of learning instead of being sources of knowledge.

In a word, as the Assistant Director General for Education mentions in his closing speech at the Beijing Symposium, three integrated themes are to be retained:

Caring.
To develop the capacity to care about one's own physical, socio-emotional well-being, about others, about other species and about the global environment.

Competence.
To extend individual and collective competence in key areas.

Cooperation.
The need to develop skills and experience in cooperation.

We shall be exploring these three key areas during this meeting.