

Committee IV  
Crises in Education in the 1980's:  
A Survey of Educational Values and Systems

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## **EDUCATION AND INSTRUCTION IN ROMANIA**

by

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## 1. INTRODUCTION

The education and instruction from the entire world is supposed to settle at this stage, first of all the matter of the dimension and its participation to the social life. In some countries, this process is already a source of political, social and economic tension, because the wish for studying and learning exceeds the efforts which are done to satisfy it.

Our conference is debating highly topical and important problems regarding the role of education and culture in ensuring the progress of the peoples, in strengthening international co-operation, placed in the service of peace, in forging a juster and better world on our planet. It is in this context that I would like to refer to a few major aspects of Romania's experience in developing education and culture, in promoting international collaboration in these domain.

It is a source of satisfaction to us to point out that, particularly during the last two decades, considerable advances have been scored in the fields of education, science and culture by placing in the focus of our attention and concern the creation of a new man, equipped with a thorough scientific and technical training and a wide cultural horizon.

The qualitative leap we made in the economic and social fields would not have been possible without the progress achieved in the training of the necessary personnel. Today's Romania boasts

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a modern, advanced and diversified system of education and instruction which ensures the thorough training of the youth, and supplies all sectors of the economy and of social life with the necessary personnel. The system of education at all levels comprises 5.5 million children and young people, which means that each fourth citizen of our country attends one particular type of formal education. For each 10,000 inhabitants there are 410 pre-schoolers, over 1,520 pupils in primary and the first cycle of secondary education, 520 pupils in the second cycle of secondary education (lycées), over 90 pupils in professional and technical schools and 85 students.

Conditions have been created for all young people, irrespective of nationality, to attend all forms of education in keeping with their aspirations and aptitudes correlated with the needs of society. For the young people belonging to the coinhabiting nationalities, schools of all levels have been created in which teaching is offered in their own languages.

The effectiveness of the right to education is guaranteed by the fact that education at all levels is free of charge, by the great efforts made by the state for developing its material basis and for the initial and further training of the teacher personnel, by placing school textbooks at the disposal of pupils free of charge, by the scholarship system as well as by other forms of material support granted to pupils and students. The buildings erected for education purposes over the 1965-1983 period amount - in space and volume - to the equivalent of seven towns,

each with a population of 100,000 inhabitants.

The development of Romanian education in keeping with the economic and social progress of the country and the introduction of modern science and technique in all fields of activity has brought about deep changes in the structure of the educational network. Thus, over 80% of the total number of secondary school (lycées) pupils attend industrial, agro-industrial, economic, pedagogical and medical high-schools. Moreover, as far as higher education is concerned, more than 53% of the students are in technical and agronomic colleges. These radical changes in the field of education also reflect the new options and orientations of our society as a result of the revolutionary changes that have taken place during the years of socialist construction.

The ample and complex process of development of education has obviously witnessed various difficulties and shortcomings requiring sustained efforts in order to be overcome. At times, too much emphasis has been laid on abstract, theoretical aspects, while the need for applying acquired knowledge in practice has been neglected .

Our experience over the last decade proves that the organic fusion between teaching, research and production increases the formative capacity of education, by bringing to the fore problems of a qualitative nature, namely problems relating to the economic and social efficiency of education, to the education of the younger generation through work, for work and life.

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It goes without saying that far from neglecting tradition, we hold it in high esteem since it represents a valuable experience, gathered over the course of many decades. We seek to raise even higher the prestige of Romanian education, which, through its achievements in such fields as physics, chemistry, mathematics, medicine as well as in other branches of science, has acquired international recognition and makes a contribution of its own to the general progress of humanity.

Our preoccupation at present is focused on the development of production forces at a high rate, on the perfection of social and production relations, on the transition to a new higher quality in material production, in all fields of economic and social life, on raising the level of material and spiritual civilization of the entire people. Secondary education becomes the main source for training and qualified manpower (over 60% of workers in the 1986-1990 period will be secondary school graduates, as against 15% during the 1977-1980 period). Some 300,000 engineers, technicians and foremen will be trained during the current five-year-plan. In this process we lay particular emphasis on vocational schools, we develop evening extra-mural education at the university level, we attach due attention to strengthening the applied character of instruction, to the systematization and better assesement of the teaching activity, to the promotion of modern educational technologies. Measures are being taken in order to turn each higher education institute, each faculty into a powerful centre of education as well as into a research labora-

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tory and a production unit.

Efforts are being made to further develop literature and the arts. We must act so as to ensure that literary and artistic activities reflects more widely the life, the work and aspirations of our people, so as to contribute to the cultivation of the lofty feelings of social and national justice, of humanism and love of work, to the moulding of a new man, endowed with a high revolutionary, patriotic conscience.

Through education, science and culture, through all means at our disposal, we seek to train tomorrow's specialists in the spirit of the revolutionary conception. We believe that a good specialist should also possess a highly responsible social culture, an advanced political attitude and a revolutionary spirit.

## 2. THE SYSTEM OF EDUCATION IN ROMANIA

The mission of education is to ensure that the younger generations assimilate the scientific, technical and cultural knowledge and skills needed in carrying out professions useful for society.

At the basis of education lies the principle of polytechnization, the blend of work, education and research - essential factors for the building of socialism in our country, for the progress and civilization of mankind. Ensuring polyqualification, the possibility to switch over from one profession or activity to another contributes to both meeting the general interests of

society at a higher level, and developing human personality multilaterally.

It is the duty of education to secure to all young people - irrespective of their specialization - both a sound training in the fundamental sciences, without which no specialist will be able to carry out satisfactorily the tasks assigned to him, and assimilation of the revolutionary view of the world, as well as knowledge of the history and the culture of the homeland.

The State allocates a great part of its funds to continuously develop and modernize education, ensures the training and perfecting of the teaching staff, as the facilities necessary for carrying out the process of education.

The citizens of the Socialist Republic of Romania have the right to learn, irrespective of nationality, race, sex or religion and without any other restriction that might constitute a discrimination issue.

Education in the Socialist Republic of Romania is organized and controlled by the State. School is separated from the church. Under the provisions of the law, the religious denominations, congregations or communities may organize schools for training cult-personnel.

Education at all levels is carried out in Romanian, thus ensuring the thorough study and knowledge of the Romanian language.

In accordance with the provisions of the Constitution of the Socialist Republic of Romania, free use of their mother tongue at all levels of education, as well as of thorough study and as-



similation of the mother tongue of each nationality are ensured to the coinhabiting nationalities.

All education is free. No tuition fees are charged at any level of education. The State pays the expenses on securing the teaching staff and the material basis necessary for the carrying out of education.

For primary, middle school, high school and vocational education free school textbooks are ensured.

Education is open, graduates of one form of education having the possibility to continue their studies at higher levels.

Education is carried out on the principle of integration with production, scientific research and design. The pupils, students and teaching staff take part in productive, research and design, technical design, scientific, cultural and artistic work, in achieving the objectives of the country's economic and social development.

Education ensures the multilateral training of youth, ability to adjust to the requirements of the rapid development of the production forces, the progress of the national economy and human knowledge.

The young people may choose the form of education and their future profession or job in accordance with the demand for manpower in society and their ability and skills. In accordance with the provisions of the law, jobs are secured to all graduates according to the standard achieved in their studies.

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All teaching staff must be both good specialists and good educators, to permanently base the training of pupils and students on the latest achievements in science, technology and culture, to educate the pupils and students in the spirit of order and discipline, social responsibility for carrying out the tasks incumbent on them at school, work and in life.

School cooperates with the family in educating children and youth, in training them for work and life.

The teacher-parent committees and the councils of teacher-parent committees, established forms of cooperation between school and family, and of control by society of the activity carried out in education, contribute to the perfecting of the instructive - educational process of preschool and school-children, to the social integration of the younger generation.

Management of each unit of education is carried out according to the principle of collective work and management, with wide participation of teaching staff, pupils and students, representatives of working people from other socialist units, as well as the teacher parent committees.

The principal, dean, rector, other leading cadres in units of education, the entire teaching staff are responsible for the observance of the legal provisions in decision-making and the overall activity of the units, the proper management and carrying out of the instructive - educational process.

The education system includes:

2.1 pre-school education;

2.2 primary education - forms 1 to 4 and middle school forms 5 to 8;

2.3 high school organized in two levels: lower high school: forms 9 to 10, and upper high school: forms 11 to 12 at the day school, and forms 11 to 13, evening classes;

2.4 vocational schools and foremen schools;

2.5 higher education;

2.6 postgraduate education, the doctorate and other forms of improving the skills of the working personnel;

2.7 qualification courses and mass agro-zootechnical education.

Primary school, middle school and lower high-school education constitute the ten-year compulsory education.

### 2.1 Pre-school Education

Pre-school education is organized for children aged 3 to 6 and is carried out in the nursery schools. As a rule nursery schools operate in conjunction with schools. The programme of the nursery schools lasts from four to six hours a day. Under the law, nursery schools with an extended programme and a weekly programme can also be organized.

The plan for including children in preschool education is an integral part of the national plan of economic and social

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development of the country.

## 2.2 Primary and Middle-school Education

Primary and Middle-school education secures the assimilation by the pupils of basic cultural, technical and scientific knowledge, contributes to their intellectual and physical development, to their political, ideological and patriotic education, to their moral and civic moulding, nurtures their interest in and love for work, develops practical abilities, orientates and trains the pupils, in accordance with the demands of the labour force and with their aptitudes, to continue their studies in the high school.

In order to foster and develop special talents and aptitudes, forms and groups with additional music, fine arts and choreography programmes can be organized in primary and middle schools.

The first form of primary education includes as a rule the children who are six years old before the beginning of the school year.

Primary and middle-school education is carried on according to unitary curricula and syllabuses. The curricula, syllabuses and textbooks are elaborated and secured by the Ministry of Education and Instruction.

The training and education of school-children are achieved through lessons, laboratory work, training in industry as well as through societies and other instructive-educational activities.

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### 2.3 High-school Education

High-school education provides the young people with scientific, cultural and specialized knowledge as well as with polyqualification in trades and professions necessary for taking up a job or continuing one's studies in higher education.

High-school education continues the education of youth through and for work, secures the unitary training of all the pupils in the field of exact fundamental sciences - mathematics, physics, chemistry, biology - as well as the assimilation of thorough theoretical and practical specialized knowledge depending on the type of school.

At the same time high-school education secures the political, ideological and moral and civic education of the pupils, their training as citizens with a broad cultural and cognitive background, with advanced socialist consciousness.

Day high-school comprises two levels, each lasting two years. High-school evening classes are organized only at the upper level which lasts three years.

Lower high school is an integral part of ten-year compulsory education and is aimed at rounding off the general education acquired in the middle school and to provide the young people with training in a trade which enables them to take a job as probationer, to enroll in the vocational school or to continue their studies in the upper high school.

Upper high school rounds off the school-children's training in the fundamental disciplines and expands their knowl-

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edge and practical abilities in a given trade in order to enable them to take a job or become a probationer or else continue their studies in higher education.

All the graduates of the middle school enroll for the 9<sup>th</sup> form without entrance examination.

Upon graduating from the 10<sup>th</sup> form the pupils shall receive the graduation diplome of the ten-year compulsory education as well as a training certificate which entitle them to take a job as probationers in the trades for which they have been trained, to enroll in the vocational schools or to continue their studies in the upper high school.

Admission to upper level of the high school is by entrance examination organized and in keeping with the norme established by the Ministry of Education and Instruction.

The syllabuses are differentiated by high school types and specializations. They are unitary as far as every specialization is concerned and contain fundamental scientific disciplines, general education and social-political disciplines, specialized disciplines as well as training in industry.

Training in industry is organized in keeping with the law depending on the specialization of the high schools in order to meet the requirements for qualification in the trades for which the school-children are trained.

The graduates of the lower level of the high-school education who do not continue their studies in the upper level of the high school or in the vocational school shall take a job and they

shall accomplish a probation period of 6 to 12 months.

The graduates of the upper level of the high school for whom the nomenclature provides a probation stage and who do not continue their studies in higher education take a job and shall accomplish a probation stage lasting 6 to 18 months.

High school studies end by school-leaving examination organized in keeping with the norms established by the Ministry of Education and Instruction. The candidates who pass the school-leaving examination receive a school-leaving diploma and a qualification certificate which entitle them to go for the entrance examination in any higher-education establishment or to take a job in accordance with the law.

#### 2.4 Vocational schools and Foremen Schools

Vocational schools train qualified workers in close relation with the labour requirements of the national economy as regards certain trades established by the nomenclature and sanctioned according to the law. Vocational schools admit graduates of the ten-year compulsory education. Vocational schools operate with day and evening classes and last one to one and a half years.

Admission to the vocational schools is by competitive examination.

Practical training is organized in keeping with the law and it takes place daily alternating with theoretical classes depending on the trade for which the school-children are trained.

The vocational school graduates are granted a graduation

diploma which entitles them to take a job in accordance with the law.

Foremen schools provide the school-children through the instructive-educational process with the most up-to-date knowledge about modern techniques and technology as well as with knowledge regarding management and the scientific organization of production and work.

The duration of tuition is one year to one and a half years in the day school and two years in the evening classes. Admission to foremen schools is by competitive examination.

The school children who pass the school-leaving examination of the foremen school shall be granted a graduation diploma which entitles them to take a job as foremen in keeping with the provisions of the law.

## 2.5 Higher Education

Higher education trains highly qualified specialists in all fields of activity, it ensures the assimilation by students of the latest scientific, technical and technological gains, of culture and knowledge of man.

Higher education is attained through polytechnics, universities, technical colleges, conservatoires and academies, organized by faculties and departments.

Studies extend over a period of 3 to 6 years.

In higher-education establishments, technical higher-education colleges included, according to the provisions of the law, evening courses may be organized, while in certain faculties and



departments even extramural courses may be arranged.

Technical higher-education evening classes may be attended by working personnel who meet the requirements of the law and who are directly involved in production in trades and professions related to the type or speciality of the respective faculty.

The duration of evening and extramural education is a year longer than that of day education.

Admission to higher-education establishments is made on the basis of competitive examination. Persons holding a school-leaving certificate may sit for the entrance examination. Evening and extramural courses may be attended only by people working in production.

The conditions for enrolling, the disciplines, tests, organization and carrying out of the entrance examination are laid down by the Ministry of Education and Instruction.

In keeping with the law, graduates holding higher-education diplomas, provided they are employed in work, may attend courses of another evening or extramural faculty.

With a view to both thoroughly training students for work and life and to the direct participation of higher education in the economic, scientific and cultural activity of the country, the entire instructive-educational process in higher education is carried out on the basis of its integration with production, design and scientific research.

Higher education is meant to ensure a broad training of specialists, which should enable them to speedily adjust themselves

to the changes taking place both in the socio-economic life and in science and technology.

The Ministry of Education and Instruction, the governing bodies of higher-education establishments, and the entire teaching staff are responsible for the scientific and political-ideological content of the instructive-educational process, for the elaboration of courses, textbooks and teaching aids required for the carrying through of the instructive-educational process.

The students' training in industry is meant to ensure both their assimilating the knowledge and skills required for the effective exercising of their future profession, and a thorough practical grounding through their direct participation in production, in scientific research and design, in economic, socio-political, cultural and educational, didactic and health-protection activities.

Studies in higher-education institutions are concluded through an examination paper. The graduates who pass the examination are awarded diplomas, which enable them to receive posts in production under the provisions of the law.

## 2.6 Postgraduate Education

### a). Perfecting the Training of Workers, Technicians, Foremen and Other Categories of Working Personnel

The Ministry of Education and Instruction guides and coordinates the entire activity for perfecting the training of

the working personnel.

It offers his specialized guidance and assistance through its educational and research units and - together with the other ministries and central bodies-devises syllabuses and outline themes for organizing refresher courses, supplies documentary materials and other works necessary for perfecting the organization and content of the training activity.

b). Perfecting through Post-graduate Courses

Post-graduate courses are a form of perfecting the training of specialists in various domains of economic, science, technology and culture who are graduates of a higher-education establishment of at least four-year day courses or at least five-year evening or extramural courses, with a view to completing, furthering or refreshing professional knowledge.

Post-graduate courses are organized by higher-education establishments and are held at their headquarters.

c). Perfecting through Doctoral Degrees

The doctor's degree is the highest form of perfecting the training of specialists in various branches of science, technology and culture.

The activity for obtaining a doctor's degree is organized by higher-education establishments, academies of sciences and central research institutions.

The themes and content of the activities to be performed for obtaining a doctor's degree are established ac-

cording to branches and domains of science by the central research institutions, by academies of science and by higher-education establishments, in cooperation with the related production and socio-cultural units.

## 2.7 Other Forms of Perfecting and Qualification Courses

### a). Qualification Courses

In-service qualification courses are organized with a view to training skilled workers from among the personnel who lack any such qualification.

Qualification courses may be organized in high schools, vocational schools or qualification centres with a view to training workers.

Qualification courses extend over 3-12 months, depending on the complexity of the trades and professions, and they take on persons who have graduated at least the compulsory 10-year education.

The qualification courses are concluded by a qualification examination. Following this examination the graduates are awarded a graduation certificate, which enables them to occupy a post in production.

### b). Mass Agro-zootechnical Education

Mass agro-zootechnical education is intended to ensure the perfecting and enrichment of the knowledge of co-operative farmers, mechanizers, workers on State agricultural enterprises

or in other sectors of agriculture, in close connection with the activity which they carry on at their jobs.

Practical training is achieved directly in the production process of the agricultural units where the school-children work and consists in specific practical activities.

Theoretical studies are pursued in winter-time in vocational schools, agro-industrial high schools or other schooling or production units.

c). Perfecting the Training of the Teaching Staff

Perfecting the training of the teaching staff is organized by the Ministry of Education and Instruction, through educational and scientific research units.

Economic ministries, the other central and local bodies with subordinate educational units shall support the perfecting of the training of the teaching personnel, in step with the development of technique and of production technologies, with the requirements of the instructive-educational process.

Activities for perfecting the training of the teaching staff and professoriate are organized in different ways, in keeping with the specific nature of their work and with the educational sphere in which they are active, on the basis of annual and long-term plans worked out by the Ministry of Education and Instruction.

Participation in all perfecting and refresher activities is compulsory.

## 2.8 General Bases of Education and Instruction

### a). Professional, Scientific and Cultural Training

The entire activity carried out in education of all grades for training the young people for work, the professional, scientific and cultural training, of studying and acquiring advanced science and culture, must rely on the scientific, revolutionary conception of dialectical and historical materialism.

Education shall ensure the study and thoroughgoing assimilation by school-children and students of the Romanian language, their knowledge of literature, history and geography of the homeland, shall nurture love for the advanced traditions of people's culture, the broadening of their general education.

Moreover, it shall ensure acquaintance with the world history and geography, with whatever is most valuable in mankind's culture and civilization.

At the basis of the entire activity for training the youth, in all forms of education, shall lie basic knowledge of the fundamental natural sciences, technical and agricultural sciences, equipping the school-children and students with the latest gains of the contemporary technical-scientific revolution.

For this purpose, education shall ensure:

- The assimilation by school-children and students of basic knowledge in the field of mathematics, physics, chemistry and biology.

- Adequate knowledge in the field of electronics and electrotechnics, of mechanics, finemechanics, the science of power and of the new sources of power, of geology, of high efficiency

machinery, apparatus and installations, of up-to-date technique and technologies in various spheres of activity.

\_ Adequate knowledge in agricultural sciences, botany, zoology, genetics and soil sciences, of advanced agricultural techniques and technologies.

- The scientific and technical education of the youth, developing skills and the habits of working in productive activities, promoting the creative spirit, the passion for novelty, with a view to their rapid integration - after graduation - in the productive, scientific and technological research activities, with a view to their best using modern techniques with which Romania's national economy is endowed and to contributing to the development of Romanian science and technology.

Education at all levels must equip school-children and students with thoroughgoing knowledge in the field of economics, of the scientific management and organization of production and of labour, with a view to their active participation in fulfilling economic targets, in permanently enhancing efficiency in all sectors of activities, in the entire work of the country's economic and social development.

b). The Political-Educational Activity and the Study of Social Sciences in the Educational System

Education at all levels has the duty of ensuring not only the thoroughgoing professional scientific and cultural training of all young people, but also their communist, revolutionary

education.

Teaching social sciences takes place on the basis of the Programme of the Romanian Communist Party, of the latter's ideology and policy, of dialectical and historical materialism and of the principles of scientific socialism, of the most up-to-date gains of the revolutionary practices and of human knowledge.

All teachers and professors, whatever the subject they teach, are responsible for the multilateral education and training of school-children and students for instilling into them the spirit of order and discipline, honesty and rectitude, respect for the country's laws and for the socialism norms of behaviour in society, the forward looking, responsible attitude towards work, towards school and public duties.

In education at all levels, the teaching staff have the obligation to ensure the direct guidance of school-children and students, to participate actively together with them in the process of education, production and research, as well as in political and ideological and cultural-educational activities.

Children's and youth's organizations have an important role to play in educating school-children and students; they are called upon to instil into them - together with schools and families - a sense of responsibility toward their training, work and life, to organize the political, ideological, cultural, artistic and sporting activities so as to ensure a profitable use of their spare time.



c. Physical Training and Sports in Educational Establishments

Physical training and sports are compulsory activities, organized in all the educational establishments.

Physical training and sports contribute to the preservation and edifying of good health, the growth of the individual's physical and intellectual abilities, the harmonious physical and moral development of children and youth, their acquiring of sound principles of work and life.

Physical training and sporting activities are specified for each level of education, in relation to the age-group and the requirements for ensuring the growth, the fortification and increased resilience of the body of children and young people.

Educational establishments and children's and youth's organizations must ensure the broad participation of school-children and students in mass sporting activities.

The Ministry of Education and Instruction in co-operation with the National Council for Physical Training and Sports are responsible for selecting children and young people for high-performance sporting activities, for their thorough coaching with a view to their obtaining outstanding results in sports and for organizing their participation in competitions and contests.

2.9 Education in the Languages of the Co-inhabiting Nationalities

The young people among the co-inhabiting nationa-

lities are ensured fully equal conditions for learning in every type of education and for obtaining any job in accordance with the needs of the economy and of social life, with their training and skills.

In administrative-territorial units inhabited also by other nationalities than Romanian, in keeping with unitary norms of structure, educational units are set up, sections, classes or groups where tuition is given also in the languages of the respective nationalities.

In order to be able to take an active part in Romania's entire political, economic and socio-cultural life, conditions are ensured for the young people of the co-inhabiting nationalities to learn Romanian. For this purpose, in primary schools, middle schools and high schools where tuition is given in the languages of the co-inhabiting nationalities, Romanian is studied, and certain subjects included in the curriculum may be taught in Romanian.

In the entrance examinations organized in keeping with the law, candidates from among co-inhabiting nationalities are entitled to taking tests in the language of their nationality in subjects which they have studied in that language.

Note: At the begining of 1977 when the last census was made, from the whole population 21,559,910 of Romania, 19,207,491 (89.089 %) are Romanians and 2,352,419 (10.911%) are Magyars, Germans, Serbians, Ukrainians, Russians, Turks, Jews,

Tartars, Slovaks, Bulgarians etc. The most numerous ethnical community of the coinhabiting nationalities is the Magyar population with 1,670,568 inhabitants, representing 7.75% out of Romania's population. Next to it is the German coinhabiting nationality, summing 332,205 inhabitants, respectively 1.54%. On the 1st January 1982 the population was composed of 22.4 million inhabitants.

### 3. THE HIGHER EDUCATION IN THE SOCIALIST REPUBLIC OF ROMANIA

The old universities which used to educate only a restricted elite, must adapt their activity in order to educate a big number of students, must prove its continuing innovating capacity. As a characteristic of the modern university, all over the world, the rigid structures are replaced by flexible ones.

The amplitude of changes is reflected by the setting-up of new type of higher education institutions, by the coming out of new disciplines and new curricula, new auxiliary systems for documentation used in libraries, classrooms, by new categories of students, by the appearance of new devices for education - instruction, as well as by new ideas regarding "the art" of learning and teaching.

All these facts show how much the relations between higher education and society have changed, as well as the way in which an institution - some time ago autonomous - is changed in accordance with the modifications acting in the society.

In our country, the State constantly granted a first class importance in defining the education system as an essential element for the social progress, as one of the essential aspects of the construction of the socialist society.

Our achievements in the field of education are the outcomes of the socialist revolution, of the efforts of the whole people that, simultaneously to the development of production forces, industry and agriculture, assured the necessary condition for the education and culture development itself in Romania.

In the transformations done to the education, we preserved the positive aspects of our own experience and we took into account the experience of other countries of the world.

The Romanian system of education is an unitary and coherent system, that is in accordance with the concrete exigencies of the present stage, that constantly is renewed together with the modern society.

### 3.1 The Development of the Higher Education Network

The higher education had a special place in the State policy in the general field of education. Before 1944 the higher education was organized only in 4 centres. Today high education is functioning in 19 centres. To these 19 centres, sections with evening classes for subengineers should be added, sections organized in some big industrial units.

At present, in Romania there are 44 higher education institutes comprising 139 faculties, in comparison with only 33

faculties which existed in 1938. The number of students increased from 26,000 in 1938 to 175,000 today.

### 3.2 The Organization and Structure of Higher Education

The higher education network consists of: universities, institutes (polytechnics, agronomy, medicine and pharmaceuticals, arts, physical training and sports), conservatories of music and an Academy for Economic Sciences. Studies extend over a period of 3 to 6 years.

In all domains and all specialities the education is organized in normal (day) courses and for certain domains - depending on necessities and characteristics - evening courses and extramural courses are organized.

The instruction is planned. The plan of instruction for each speciality is established in accordance with the exigencies of economy, science and culture. This fact allows the graduates to have assured a certain working place in their respective speciality after graduating the institutes.

Admission to the higher education is made on the basis of competitive examination. The candidates are enrolled in the first year of education based on the marks which they obtained during the examination competition up to the filling of all envisaged places.

The period of studies varies between 4 to 6 years for long term courses and 3 years for short term courses. In case of some specialities that are organized both long term and

short term courses, the education is carried out in parallel.

Taking into account the experience accumulated in organizing the short term education, in present, we pay a special attention to its improving and increasing of its efficiency. A better corelation between this short term education and the real necessities of a diversified specialization and the needs of the productive companies and other socio-economical units is going to be established. The long term technical higher education has the purpose of creating specialists necessary to ceonceive, to fulfill researches, to indite studies, for the management of the production processes etc. The short term higher education has the purpose of preparing specialists that organize and manage the technological processes of production, running, maintenance and repairing in work-shops, sections of plants, yards and accomplish workings in the technical departments.

In each higher education institute there are faculties which have some related specialities. These related specialities are organized in departments.

The departments are basis units for the education - instruction and scientific research process. They comprise the professors teaching disciplines of related specialities, including the technical staff.

In some certain higher education institutes, units and research centres, interdisciplinary research laboratories, as well as production, drawing up studies and services units are

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organized. These units are created in the last years with the purpose of strengthening the integration of education with research and production.

The Ministry of Education and Instruction is directing and controlling the entire instructive educational process. The higher education institutes, faculties and specialized sections in the field of technics, economics, agronomy, medicine and art are, at the same time, subordinated to the economic ministry in the respective area. This double subordination make it possible to enhance the orientation of higher education toward practices and to better coordinate the directions belonging to the same areas, especially in the fields where the higher education contributes to the scientific research activity.

The management of each higher education institute is carried out by Senate (Council of Professors) which is composed of rector, as president, vice-rectors, the deans of faculties, representatives of teaching staff, students and representatives of certain ministries and economic institutions.

The faculties are managed by the Professors' Councils made up of the dean, as president, vice-deans, the chiefs of departments, representatives of teaching staff, students, representatives of some ministries and institutions from the same area.

Departments are managed by the chiefs of departments who are elected from the members of the respective department.

The period of election for the rectors and deans,

members of the Senate and of the Professors' Councils is for 4 years.

### 3.3 Present Aspects of the Higher Education in Romania

The most important problem that had to be solved by our education was not only the quantitative development of this system, but especially the qualitative side. We had to train specialists who were supposed to work in the future society, a multilateral developed society with a high level of material and spiritual civilization.

We started from the idea of adopting a deeply innovating and courageous attitude, to eliminate all what was anachronical and to stimulate all that can promote the development tendency.

The driving force in updating the contents of education, in enhancing the active participation of education to the social and economic life of the country is its intimate link to production, to scientific research and to social, cultural and political practice.

The idea of this unity, formulated by Romania's president Nicolae Ceaușescu, more than a decade ago, has been impregnated in the entire conception of organizing and implementing education, in all regulations and measures concerning the initial and further training of the labour force, the functionality of the various structures of education. The process of bringing education closer to life and society is achieved at pre-



sent mainly through introducing practical training in the programme of studies, through the activity of the applied technical and scientific circles, through competitions of technical creation and above all through the research work carried out by the professional staff as well as by students.

The high rates of progresses of the science and modern technology determine the necessity of training specialists with, firstly, a basic knowledge and having the capability of adapting themselves to the changes in the material production, in the technological processes and in the social activity.

President Nicolae Ceaușescu said that "the education system should ensure the training of young people for work and for life, should develop the respect and passion for concrete work, of the young people capable of bringing about material and spiritual values".

The list of specialities stipulates an organization of higher education in large fundamental types, corresponding, in general outlines, with the main branches of the science, culture and economic activity. In all the first 2-3 years of studies in the universities, the students are the beneficiaries, within each fundamental type, of one general basic training. The next years of training ensure the assimilation of the respective speciality disciplines, within the specialities of each main branch, by drawing up studies or graduation paper and by the production activity or scientific research.

The education plans offer the possibility of

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some optional courses which can be attended by students who are interested in a deep specialization in a certain field. After graduating the universities the graduates continue their specialization through other organized studies and especially through individual studies.

The fundamental matter, the keynote of the Romanian instructive - educational process is its integration with the scientific research and production activity.

In this respect, in all higher education institutions measures were taken in collaboration with the ministries, economic organizations and other interested institutions to achieve the integration of the education with research and production. This integration became an unitary system, well defined and organized. Thus, studies and research, production plans were drawn up, special unities of research - design - prototypes production, pilot lines, as well as experimental and instruction agricultural units, artistic creation studios, offices for studies and expertise, offices for techno-economical studies, for consulting, for economic-statistics investigations and computing centers etc. were organized.

All institutes and research laboratories in the field of mathematics, physics, biology, as well as social and political sciences centres and research institutes were subordinated to the higher education institutions; in this way a unitary system of instruction - research - production was created.

The participation of students to this integrated

system has the purpose to ensure their effective instruction in the concrete production conditions in which they will work afterwards.

The practical activity in the areas of production or research is differentiated depending on the future profession and the students aptitudes.

I wish to exemplify the triangle education - research - production with two cases.

In the area of physics, in Magurele, near Bucharest, the National Centre for Physics was set up. In this platform the Physics Faculty of the University of Bucharest, a physics - mathematics college and the research units of the Central Physics Institute of Bucharest are joint.

The University of Brasov, an old cultural and industrial point of Romania, transferred a series of departments for engineering to some big plants existing in this town. In this way, a connection among library and lecture rooms and designing, testing laboratories and prototypes workshops was achieved. This is a way of integration of education with research and production, by extrapolation of the notion of university clinic, which is specific for medical education, to the technical higher education.

The entire Romanian higher education is developed and differential organized based on the system of the triangle education - research - production.

The basical problems of the new system of education, training of specialists with wide horizons and active participation of students to the instructive - educational process, are

the reflected by/structure and content of its plan. All the production and research activities have their correspondents in the education plan. The plan comprises curricula for each year of education and each specialization.

The entire instructive - educational process ensures to the students within a large type, the same elements of the basic scientific and cultural knowledge (the first 2-3 years of studies), while the specialization is achieved by productive and research components (in the last 2 years of studies).

The improvement of the higher education widely depends on the teachers' activity. The university teachers' staff must promote the newest achievements of science, culture and modern technics for all forms of education, must be exacting with their own scientific and pedagogical preparing activity, must request - by conviction and self example - an improved active participation of students to the university life, must transmit a full of passion style for study and research, and work esteem.

The continuing perfecting of the teachers' staff is absolutely necessary and is imposed by the rapid changes of social life. To this purpose the teachers' scientific and social activities and participation to the process of national recycling is contributing. But the doctorate is the main way of perfecting for the higher education staff. In order to be an associate professor or a professor it is absolutely necessary to be firstly a doctor.

Almost 20,000 students and candidates to the title of doctor from about 100 foreign countries, to special from developing countries, are coming to study in Romania.

In Bucharest, the European Centre for Higher Education of UNESCO is carrying out a fruitful activity by organizing meetings for exchange of experience, post-university courses etc.

The young generation of students trained in the education - research - production system is working in a complex way, learning, creating and producing. With these people, the education cannot become rigid, production being open for improving its qualitative components and the research activity will be propelled higher and higher by passion, exigency and competence, having as goal the happiness of the people.

#### 4. PERMANENT EDUCATION

##### 4.1 Content and forms of the process of permanent education

The Romanian state grants particular attention to the process of creating a new culture, as part and parcel of the general process of development of today's Romanian society as well as of the fulfilment of the human personality of its citizens.

A cursory of the new elements - both quantitative and qualitative - which have marked the Romanian cultural development during the last 10 years, will single out the launching of a sustained process meant to ensure the wide participation of the masses in cultural, artistic, technical and scientific creation. The most telling example to this effect is provided

by the national Festival "Song to Romania", which is a mass movement of a permanent nature in the field of art, culture, technology and science; its purpose is to enhance the professional competence of the working people and to develop their artistic capacity and technical creativity. The cultural, artistic, technical and scientific achievements obtained up to now by the Festival, have enriched the national cultural and scientific patrimony, thus testifying to the fertile vocation of this vast movement. The last display of the Festival enlisted the participation of 4,500.000 people.

Romania's main concern at present is to obtain a new quality of life and work, as an essential stage in forging a higher civilization in which science, education and culture play a decisive role.

The appeal to the creative and imaginative resources of the people's masses has strengthened the foundations of the cultural identity of our people, has allowed the affirmation of a modern, socialist culture and civilization, open to the values and conquests of the 20th century science and culture, while being deeply rooted in our national specificity, in the Romanian spirituality.

At the same time, the presence of Romanian art on all meridians of the planet stands proof of the fact that only by preserving its spiritual identity, understood as the affirmation of originality, of specific creative characteristics, can each people make its contribution to world culture.

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The national cultural heritage represents, in Romania's view, in the view of president Nicolae Ceaușescu, a component part of the history of the Romanian people, its most precious inheritance, reflected in the valuable creations of our predecessors, throughout the ages. By continuously preserving and developing this cultural inheritance, which we lay at the foundation of the patriotic education of our citizens, we honour and cherish the hard work and heroic struggle of our ancestors.

We also pay particular attention to educating the youth in the spirit of solidarity with the struggle of the peoples, for security and peace in the whole world.

Engaged in an ample constructive effort of building-up a multilaterally-developed socialist society, Romania steadily strengthens and diversifies her relations of cooperation with all the countries of the world.

In the conception of Romania, of president Nicolae Ceaușescu, the ample promotion of cooperation in the domain of education, science and culture contributes to better understanding and rapprochement among nations; besides, in the present conditions, when international life is characterized by an unusual tension, by an unprecedented stepping up of the arms race, by an ever deeper gap between the rich and poor countries, the development of bi- and multilateral relations in these sensitive domains, in which the spiritual values of mankind are created, represents a particularly active factor which

operates in the interest of peace and world security. That is why the representatives of science, education and culture in Romania, members of the National Committee "The Scientists and Peace" chaired by Academician Elena Ceaușescu, first deputy prime-minister of the Romanian Government, are and will always be ready to join their forces and actively co-operate with scientists, men of letters, researchers all over the world, in order to halt the arms race and the production of more weapons for mass destruction.

Socialist Romania, which is herself a developing country, makes a great contribution to training and further training national bodies of specialists needed by the states which have chosen to follow the road of independent development, the struggle for economic and social progress.

#### 4.2 Education in the spirit of cooperation with other peoples

The steady development of the economic co-operation between Socialist Republic of Romania and the developing countries, by observing the principles of equality, independence and sovereignty, of non interference in the domestic affairs and mutual advantage, the prestige of the Romanian school, the practical character of education adjusted to the requirements of development, have determined many governments, central institutions in other countries to yearly increase the number of applications for the training and further training of cadres in Romania. Thus, if in the 1963-1964 school year,




561 foreign students studied in Romania, their number exceeded 10,000 in 1976-1977 and it reached 20,000 from 100 countries this year, which means that there is at least one foreign student for every 10 Romanian students. Part of these young people from the developing countries receive scholarships, granted by the Romanian State for the period of their studies. Out of the total number of these young people, nearly 50 per cent attend polytechnical institutes and half of them are trained in the top-priority domains of science and technology such as electronics, electrotechnics, cybernetics, petrochemistry. The Romanian medical school is providing training for about 40 per cent of the foreign students, from these which study in our country.

Romania contributes not only to the training of cadres who have completed their secondary or higher education, but also to their further training as part of post-graduate courses which include writing Ph.D. theses or attending specialized courses.

Due to the numerous and various cultural activities organized abroad every year by Romania - translations and publications, exhibitions and films, artistic tours - the lovers of beauty in different countries of the world could get to know the traditional or contemporary treasures and cultural values of Romanian art.

In the spirit of reciprocity, Romania, in her turn, has been receptive to authentic values of the culture and arts



of other nations of the world. A large number of literary, scientific and artistic production of world culture have been printed in Romania. A great number of foreign films are shown both in cinema halls and on television. The repertoires of Romanian theaters and musical institutions include many valuable dramatic and lyrical productions, musical pieces created by other peoples. Many artists and drama groups from abroad perform on Romanian stages.

We pay considerable attention to the bilateral cultural-scientific collaboration with all the other countries, irrespective of system, irrespective of their size or share in the world. We also promote multilateral dialogues in the field of culture, at subregional and international levels, within UNESCO and other international organizations.

Taking into consideration the continued extension of the framework both for bilateral cultural-scientific co-operation in Romania and in most countries of the world, and for multilateral co-operation, as well as the rich experience acquired so far, we consider that, at present, emphasis should be laid particularly on enhancing the efficiency and the quality of future actions, so as to make possible better mutual knowledge. Of great use in this respect are the presentations of realities in the respective countries provided by various scientific works, encyclopaedias, textbooks or courses, translations of literary works, the theatre, the mass media etc.

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