



STRATEGY FOR THE CONSTRUCTION AND DEVELOPMENT OF THE
NATIONAL CURRICULUM
for Preschool Education, General Compulsory and Secondary School Education



Republic of Croatia
Ministry of Science, Education and Sports
Council for the National Curriculum

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Foreword

To be a visionary in the area of education in a time of deep and rapid social, economic, information technology changes and scientific achievements, is to deeply think through and set multiple ways and modes of personal and social development of children and students, from the preschool level to the moment they start university education.

Members of the Council for the National Curriculum have examined the goals of development of the Republic of Croatia, the goals of educational policy of the Ministry of Science, Education and Sports of the Republic of Croatia, have analyzed scientific results, consulted European documents, carried out a public debate with relevant education actors and developed a clear and concise *Strategy for the Construction and Development of the National Curriculum for Preschool, General Compulsory and Secondary Education*.

The *Strategy* is, on one hand, the presupposition for the creation of *The National Curriculum Framework* which is going to answer the question of exactly what knowledge, skills, abilities and attitudes the children and students need to acquire in order to, while responding to demands of the future, find their place in their private, social and professional life. On the other hand, the *Strategy* shows the way to changes to be undergone by all education actors – preschool institutions and schools, their founders, higher education institutions, agencies, parents/guardians, children and students, political, social and professional associations and media, as well as all Croatian citizens – who need to *share responsibility* while contributing to the achievement of the highest level of education quality.

The realization of a knowledge-based society presupposes *knowledge* as a social and cultural value, which is not to be imposed but stimulated by permanent activities of teaching and learning.

The future of our children is in what we are doing here and now. The *Strategy* guidelines set clear expectations on adults – to join personal and professional responsibility with personal conscious, and to move towards the utmost quality of its realization.

Dragan Primorac

Minister of Science, Education and Sports

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Introduction

Systematic work on raising the quality of education is provided by *Education Sector Development Plan 2005 – 2010*, a document created by the Ministry of Science, Education and Sports (hereinafter: “the Ministry”) and adopted by the Government of the Republic of Croatia in June 2005. The quality of education has been set as a goal and a principle of Croatian education policy.

Accepting the curriculum approach implies the construction of a national curriculum and is to be preceded by efficiency evaluation of all the immediate actors in the field of education and the redefinition of education on all its levels, in order to respond to the developmental needs of the Croatian society, while bearing in mind a wider European and global context.

Strategy for the Construction and Development of the National Curriculum for Preschool, General Compulsory and Secondary School Education (hereinafter: “the Strategy”) contains propositions of guidelines and ways to improve education in Croatian social context, as well as the propositions on how to ensure a quality system of education, with special emphasis on those components that relate to the creation and implementation of the national curriculum for preschool, general compulsory and secondary school education.

The *Strategy* contains expert suggestions on how to modernize, upgrade and improve the quality of the education system.

The *Strategy* is a developmental document open to changes and improvements depending on the needs and developmental tendencies in the education area, as well as on the various studies and evaluation results.

Aims and Objectives of the Strategy

The *Strategy* aims at:

- defining goals and values on which to base preschool, general compulsory and secondary school education,
- improving the quality of educational process, i.e. quality of teaching and learning,
- ensuring equal rights and equal conditions of teaching and learning in Croatian schools (pedagogical standard),
- ensuring conditions for constant development of the national curriculum,
- systematically following and argumentatively portraying priority changes, defining change-bearing factors, timelines and financial plans,
- comparing the system with other European education systems.

The *Strategy* will serve the architects of educational policies, education 'providers' – teachers, expert associates, principals, and education 'consumers' – pupils/students, parents, local communities and agencies, higher education institutions, scientific and research institutions and other organizations.

Why the Changes

The development of a **knowledge**-based society and the globalization process are creating new social and individual needs – in the areas of culture, scientific and technological development, social cohesion, the position and the role of an individual as a citizen as well as in the area of an individual's personal development. Education, given its importance in knowledge production and transfer and in preparing an individual for further life and work, has gained considerable importance in the context and has become, along with science, one of the fundamental pillars of society development.

Society development and preparing the individual for life and work in new conditions are creating the need for new competencies (innovativeness, creativity, IT literacy, teamwork, constant acquisition of new knowledge, adjusting to changes). They cannot be acquired through a traditional educational system, which functions as a transfer vehicle and is oriented towards the knowledge of facts. The curriculum policy shift from the idea of knowledge transfer to that of development of competencies is a dominant trend in Europe, as well as in the rest of the world today.

In today's highly competitive economic and social context, education and work productivity can be improved by setting high educational standards on the national level. This position leads to the standardization of educational achievements, the emphasis of the need for their achievement on a wider national scale and the assessment of the actually achieved results.

The globalization process and European integration puts not only the national economies but also the national education systems in a wider international context. The educational and curriculum changes in Croatia will also have to be examined with regard to the mentioned development trends in a wider context, especially the European one.

Adapting to the socio-cultural and other changes and tendencies in the contemporary society development clearly demonstrates the need for changes in education. Priority is given to those relating to the **development and acquisition of basic competencies**, which are defined in the European competency framework and are being introduced in the respective national curricula of all the EU member countries. These are the linguistic and communicational (mother tongue and foreign languages), mathematical, IT-related, scientific, entrepreneurial, social and civil competencies which allow for a responsible and efficient involvement and creative action in changeable socio-cultural conditions.

The new demands in the field of education are not oriented solely towards increasing students' success rates, but also towards the need to render students capable of facing a changing world and to acquire competencies in contemporary education areas. This reflects itself in the need for the **extension of general compulsory education**.

Acquisition of a secondary school diploma or a university degree can no longer guarantee absolute competence or proficiency to efficiently perform professional, civil or family roles and tasks. If one is to be professionally involved in the labour market and in the life of a community, one should be highly motivated and capable of constant learning. Contemporary education, whose goal is a democratic and knowledge-based society, demands from an individual to be a complete and responsible person who will spare no efforts for socio-cultural advancement.

There is both a need and an obligation to direct the education of children and youth to those values that aim at preserving national, regional and local cultural heritage, as well as at affirming the historical and cultural legacy in one's personal life and surroundings. This educational goal requires a concept of systematically rendering youth more susceptible to others and to their own personal environment, to a wider context of living marked by pluralism of cultures and religions, a multi-linguistic society and diversity of moral values. It requires competencies which facilitate cohabitation and mutual understanding. Therefore, the youth needs to be taught and rendered capable for life in their local community as well as in a wider one.

Given the mentioned tendencies in modern society development – constant increase in scientific and technological knowledge and the demands for changes in it, the importance of research, innovation growth, *know-how* as a component in a country's competitiveness, global competition increase, internationalization of societies, etc. – the education system in the Republic of Croatia needs to contribute to a faster economic growth, to social interconnection, to the democratic development of society and to a faster and more successful integration of Croatia into the European Union.

Identifying Conditions in Preschool, Primary and Secondary Education

The starting points for the drafting of a national curriculum are the following: actual and developmental needs of the education system in the context of Croatian society and of needs of the individual, developmental tendencies and standards in the construction of national curricula accepted in Europe and around the world, and Croatian tradition in the area of education.

The insight into the scientific and expert analyses of Croatian education system, into the experiences of other, especially European countries, and into the analysis of documents created by European and other international organizations (OECD, UNESCO) shows that Croatian education system has a series of structural, organizational and curricular weak spots. These need to be overcome in order to achieve the quality of education appropriate for the demands of economic, cultural and social development of the contemporary world.

On the **preschool level**, the participation of children in the “preschool program” (participation in the year before starting primary school) is almost absolute, yet the extent of children covered by preschool education is low. It is estimated that the 250 hours of “preschool program” are insufficient to acquire the desired competencies which would be significant for further education in primary school. The standard of conditions for children’s stay in kindergartens is uneven.

Primary and **secondary school level** are marked by a centralized and subject-oriented curriculum. This results in weak horizontal and vertical interconnection of subjects, insufficient integration of educational contents, inefficient vertical and horizontal mobility on the secondary school level, inefficient vertical mobility from vocational school, as well as in weak horizontal mobility within vocational, i.e. secondary school level. It is one of the principal reasons for a growing number of students to discontinue their education early on. A lack of balance in the load of school curriculum has been noticed on both levels. Apart from this, there is a constant insistence on equalization of primary and elementary education.

The plan and program differentiation is insufficient when it comes to children with special needs, children with developmental and learning difficulties and talented children. External evaluation and national exam procedures in primary and secondary schools have shown needs to define sign language as the first language for children with hear and speech impairment and to ensure a complete education in Braille for sight impaired children.

Education of national minorities also needs to be evaluated and improved.

The initial teacher training and education program is outdated. Teacher education is not harmonized with contemporary changes in the system of education, curriculum included. This results in program disharmony in higher education and in inefficient and irrational professional development of teachers (professional training and job promotion). It also relates to preschool teachers, as well as to the lack of competencies definition for principals, mentors, counsellors, higher counsellors, inspectors and their respective professional development and promotion.

As far as IT literacy is concerned, research indicates a low level of IT literacy of educational activity bearers on all levels.

There is still no systematic internal or external education evaluation or self-evaluation on a pre-tertiary level. Bearing in mind the fact that external evaluation was introduced as late as 2005, we are facing a problem of incompetence of education bearers to evaluate or self-evaluate. No strategy for external education evaluation has yet been constructed, nor has a way been conceived to use the results of such evaluation. This is reflected in the non-systematic approach to planning and implementing short and long term changes.

Similarly, no assessment system has yet been developed nor a system to award any given school or individual for special contribution or for education innovation.

School working principles are unclear, whether at primary or at secondary school level. For example, the flexibility principle is hardly practiced in our education system; this is reflected in the lack of optional subjects in schools. The autonomy of school remains undefined.

Vocational programs in secondary schools very often do not correspond to labour market demands; they are hardly in line with economy or competitiveness; they are outdated and are not based on defined competencies and clear achievement degrees. It is necessary to work on their harmonization with the European qualifications structure.

The efficiency of education system management is rather poor on local, regional and state level (e.g. linking secondary schools and vocational schools on regional level).

Education infrastructure is faced with unclear and/or insufficient authority and responsibility, which requires the legislation relating to formal education system to be revised, amended and renovated.

Curriculum development requires the existence of a separate department (an office, section or unit) as a permanent centre for expert and scientific monitoring and implementation of the curriculum (gathering research, statistical and other data) and its constant development and improvement.

Similarly, there is no regulation in managing data useful for quality monitoring and development. It is, therefore, necessary to define who has the authority to deal with research and evaluation results and to determine the range and level of information transfer towards direct and indirect actors in the education system.

An additional difficulty lies in the lack of a single methodology for gathering data relevant for the development of education system. The Ministry, Central Bureau of Statistics, National Centre for the External Evaluation of Education, the City of Zagreb and other units of local self-government gather information using different methodologies and update data rather slowly.

On the other hand, the work has been intensified on a more systematic orientation towards improving material conditions in schools, at all levels. The process of creating a schools' network has also begun.

Schools have been rendered more sensible to change via international projects, Ministry projects (Croatian National Education Standard – CNES) and national exams implementation.

The Ministry has directed its activities towards quality evaluation of the education system (national exams in primary and secondary schools) and has inspired the formation of the system support infrastructure.

Aims and Objectives of Curriculum Changes

Aims and objectives of curriculum changes are to:

- synchronize the national curriculum with the needs and developmental goals of Croatian society and the developmental needs of the individual,
- synchronize the national curriculum with the latest trends in the education area and improve it permanently,
- more efficiently connect the national curriculum with other education system components,
- more efficiently connect the inner components of the national curriculum into a more coherent system,
- develop a national curriculum whose goals, implementation and effects are clear and transparent to its participants and users.

The *Strategy* aims at developing a national curriculum which will stimulate vertical and horizontal mobility in the education system and will enable students to, once they finish general compulsory education, acquire basic (general) and professional competencies so as to continue their education or get their first job, should they choose to discontinue education.

General and Particular Goals of the National Curriculum for Preschool Education

The basic role of preschool education is to create conditions for a complete and comprehensive development of a child's personality, to contribute to the quality of his/her growing up and, indirectly, to the quality of family life.

The goal of the national curriculum for preschool education is to create and synchronize all the conditions necessary for a complete and comprehensive development of preschool children, to intensify cooperation with parents, with the cultural, economic and other subjects of the local community while respecting children's behavioural patterns, principles of children's rights and the needs of preschool children, as well as the criteria (standards) of optimal conditions for children's development from the age of one to school age.

The achievement of the goal of the national curriculum for preschool education is divided, considering a child's age, into two program levels:

- program level of preschool education for children up to 6 years of age,
- program level of preschool education in the year before starting primary school, including children aged between 5 and 6.

During early childhood, the focus of educational activities is set on stimulating a comprehensive, optimal and healthy growth and development of all aspects of personality – physical, emotional, social and intellectual – in line with children's developmental possibilities.

Particular goals of the national curriculum are aimed at:

- healthy development of dimensions of personality,
- developing and nurturing a child's comprehension capacity, perception, memory, thinking, openness to new learning experiences,
- stimulating and enabling children to use various means of communication and expression (speech, vocabulary enrichment, visual arts expression, musical expression),
- stimulating spontaneous expression of a child's creative capability, especially through play as a basic activity,
- creating a sense of security and self-confidence,
- enabling children for space and time orientation,
- developing curiosity and an active, exploratory rapport to one's surroundings,
- developing motoric and working skills,
- developing ecological consciousness,
- developing child independence,
- stimulating pro-social behaviour.

During preschool education of children who are aged between 5 and 6, and have not been included in standard preschool education programs, the focus is put on stimulating optimal development in all areas of psycho-physical development and the acquisition of new knowledge, skills and habits which would facilitate a child's transfer to an organized school system.

The aim of preschool program is to teach children the knowledge, skills and attitudes which would facilitate their transition from preschool level to an organized school system with defined rules and more organized activities.

General and Particular Goals of the National Curriculum, Education Achievements and Principles of General Compulsory Education

The goal of the national curriculum is portrayed in effecting the principles of developmental curriculum construction. It expresses the orientation towards student's personal development, towards preparing one for quality life, for active and responsible participation in cultural, economic, scientific and general social progress of one's country in an era of knowledge-based society development and globalization.

The general goal expresses the education needs of an individual and of the society. To prevent it from being simply declarative, it is specified through particular goals relating to the needs of the individual, economic, cultural and general social needs. Therefore, the abovementioned goals are being operatively expressed through student's expected educational achievements (competencies), which makes it possible to evaluate their level of development.

Particular goals of the national curriculum are aimed at developing student competencies which prepare him or her for:

- life and work in constantly changing conditions,
- active and responsible participation in social life and taking responsibility for its democratic development,
- responsible rapport to nature and environment,
- responsible rapport to one's own health and care for the health of others,
- lifelong learning and education,
- responsible rapport to oneself and to developing one's own capabilities,
- preservation of one's historical and cultural tradition, and development of national culture,
- development of moral and spiritual personality dimensions,
- social integration and life in heterogeneous societies.

The expected student education achievements (outcomes) after finishing general compulsory education are the following:

- developed communication competencies (in mother tongue and if foreign languages),
- developed mathematical competency (conceptual knowledge and using mathematics in problem solving, including problems in various life situations),
- developed IT literacy (be familiar with and use IT and communications technology),
- awareness and understanding of natural phenomena and a developed reasoning in nature sciences,
- developed critical thinking and problem solving capabilities,
- developed creative capabilities,
- self-organized studying competence,
- developed social competencies,
- knowledge of human and children's rights and competence to respect and carry them through,
- developed basic knowledge and positive attitude towards artistic creation and expression,
- developed basic knowledge and positive attitude towards one's own culture and other cultures,
- developed consciousness of one's own health and the health of others,
- developed consciousness of the need for nature and environment preservation,
- developed practical and working skills for everyday life,
- developed entrepreneurial competence,
- developed competence for decision making regarding personal professional development,
- developed self-confidence, self-respect and own capabilities awareness.

The **principles of the national curriculum** are the starting points or the foundation on which the national curriculum is based and should be followed by all the participants in curriculum development and implementation. On the level of contents, the principles are connected with goals and achievements, or results expected from education. Hence, they represent an important component which ensures a meaningful unity of the curriculum system and collaborated action of all participants in national curriculum development and implementation.

A logical link between principal orientation and concrete results of the national curriculum is demonstrated by the accomplishment of a contents-based connection between goals, principles and education achievements.

The **foundation principles of national curriculum development and implementation are the following:**

- ensuring quality education for all (ensuring proper material, personnel and other conditions for quality education throughout Croatia, diminishing regional educational differences),
- equal education opportunity for all,
- compulsory general education,
- inclusion of all students,
- respecting human and children's rights,
- multiculturalism, tolerance, respect for differences, preservation and development of one's own historical and cultural heritage and national identity,
- competence and professional ethics,
- scientific foundation of the curriculum,
- democracy (involvement and responsibility of a wide range of education participants and users),
- school autonomy,
- pedagogical and school pluralism,
- European dimension of education,
- lifelong learning,
- education and training aimed at students' individual development.

Parents and/or legal guardians participate in the construction, implementation and evaluation of national curriculum. Their role is to share the responsibility for the education of their children with education institutions and other partners in the education process.

Curriculum Areas

The weak spot of Croatian national curriculum, along with its insufficient inner coherence and integration, is also the disproportion in education areas. It is apparent that the subjects developing students' physical, practical and technical side, as well as the ones promoting humane interpersonal relations, have been given an inadequate share of the timetable, especially following its reduction. National curricula aimed at developing basic competencies start from the notion that life in the complex and dynamic conditions of the contemporary world requires the individual to constantly adapt to new working and living situations and, therefore, to develop all key aspects of one's personality: notional, aesthetic, emotional, motivational, social, ethical, physical, practical and technical. In order to ensure a complete student development, modern national curricula use a holistic approach in the choice and organization of educational contents, emphasizing multidisciplinary as means of their successful integration. This trend is demonstrated through increasingly frequent structuring of curricula into wider curriculum fields representing integrated units of related subjects and through creation of inter-subject thematic units as curriculum fields. Introduction of curriculum fields enables not only the acquisition of new competencies but also, in the countries with long traditions of subject curriculum, the rationalization and better conceptual linking of educational contents.

Following the mentioned goals and expected educational achievements, national curriculum for general compulsory education in the Republic of Croatia includes the following **educational (curricular) areas**:

- language and communication,
- social and humanist area,
- mathematics and nature sciences,
- technical and technological area,
- arts,
- practical work and design.

National framework curriculum specifies contents and structures of separate education areas, defines their education goals and expected achievements on particular levels of student development.

National curriculum also tends to give framework definitions of inter-subject units or integrative contents and define expected education achievements. The inter-subject topics are quite diverse in national framework curricula of European countries, which demonstrates their contextual conditionality. We believe that the following inter-subject topics or modules should be introduced in the Croatian national curriculum: entrepreneurial education, civic education, technology and environment, human rights, children's rights, etc.

Structure of the National Curriculum

National curriculum should differ between its:

- common part, compulsory for all schools (curriculum core), and
- specific part, school curriculum created for a specific school.

The **common** part, compulsory for all schools (**curriculum core**) ensures equal education conditions for all students, at a national level. It defines general curriculum goals, curriculum fields, goals in separate education cycles, mandatory subjects, integrative and inter-subject thematic units, projected timetable for mandatory subjects, etc.

The **school curriculum** is the part developed by schools to respond to specific needs of students and school environment, which in turn defines the school's individual profile. It is important to note that schools can decide what version of school curriculum to choose: the one set at deepening particular parts of the national curriculum or the one aimed at expanding the mandatory curriculum by providing additional optional contents. No matter what their choice of school curriculum is, schools are obliged to offer a number of optional subjects.

If the subjects and inter-subject topics do not cover the problem of providing professional information and student counselling, it should definitely be covered in the school curriculum.

The share of school curriculum in the national compulsory curriculum will be approximately defined. Its share percentage in total number of classes will also be defined more precisely.

The national curriculum requires the acceptance of national minorities as members of the society with equal rights, and therefore, the expression of their national identity in the construction and implementation of the national curriculum, primarily in language, communication, history and cultural heritage areas. By constructing a school curriculum, each school has the possibility to create inter-subject contents and/or optional subjects for acquiring intercultural, entrepreneurial and social competencies, for promoting specific values, but also the possibility to create a network of programs in the socio-cultural, local and regional community.

Student Achievement Evaluation, Certificates and School Quality Evaluation

National curricula today are growingly concerned with evaluating student achievements, and especially with external evaluation (e.g. national exams). In the Republic of Croatia, which started external evaluation process in 2005, it is important to define evaluation levels, evaluation criteria (standards of education achievement), to develop different grading models and techniques and to define certification criteria. In order to properly evaluate the curriculum, it will be necessary to develop schools quality self-evaluation and to teach schools how to use results of various evaluation forms for improving quality of work in schools.

Organizational Structure of School System and Curriculum Cycles

An adequate organizational structure of school system is necessary for a quality implementation of national curriculum. Highly developed countries, especially Scandinavian ones, usually get the best results in international student achievement evaluation. Their experience shows that extended general compulsory education and appropriate structuring of educational cycles (curriculum cycles) are necessary in order to achieve the goals defined. The stress is put on the length of primary education, student differentiation according to capabilities and affinities, and student involvement in different and relevant programs of education (external differentiation). In this regard, the most effective systems have proven to be the ones with 6-year primary education and the later external evaluation, i.e. after finishing general education (students are at the age of 16). The abovementioned education solutions represent the internationally recognized standard classification of education (*International Standard Classification of Education, ISCED*).

Curriculum construction and development in Croatia with the extension of compulsory education to secondary school level calls for the restructuring of educational cycles (basic curriculum cycles) and of the relationship between general and professional education.

Curriculum cycles represent the school degrees covering several years of education, having common educational goals and not necessarily overlapping with formal education levels (preschool, primary and secondary school). These cycles are important in the construction of the national curriculum in Croatia because they provide:

- better specification of general goals of education and goals on different school levels,
- specification of class organization and realization,
- better conceptual connection between different formal levels of education.

From the national curriculum point of view, forming the mentioned cycles is important for:

- introducing curriculum fields,
- determining the time (grade) when a subject or educational content will be introduced,
- allocating time, i.e. determining the importance of certain curriculum fields and subjects,
- defining efficient class strategies.

The organizational framework which would enable the realization of a new national framework is marked by the maintenance of external differentiation after finishing 8th grade and the extension of compulsory general education to secondary school education, in the appropriate ratio (considering vocational education) and in line with the *National Programme of Measures for the Implementation of Compulsory Secondary Education*.

The possible ratio between general education and professional contents in the first year of secondary school education would be 60 : 40, and in the second 40 : 60. The final ratio of general and professional and vocational education shares will be regulated by law and by a series of documents and handbooks (National Curriculum for General Compulsory Education, National Curriculum for Secondary School Education, National Qualifications Framework, Vocational Qualifications, etc.). It is important to note that the modules of

vocational education would be set by schools in cooperation with other partners. In general education secondary schools (grammar schools) the part of the curriculum set by schools would consist of different modules of general education or related contents, to be decided by the schools.

Students who do not wish to continue their education can get their first occupation after finishing second grade of secondary school (at the age of 16), but are obliged to finish the part of general education curriculum mandatory to all students. It is indispensable in order for all students to acquire basic competencies necessary for lifelong learning and to have the possibility to get permanent employment in the changing conditions of life and of labour market.

Educational goals, expected student achievements, curriculum fields, evaluation and assessment of student achievements according to the mentioned education levels and cycles will all be specified in special documents (National Curriculum for General Compulsory Education, National Curriculum for Preschool Education, etc.).

Vocational education will also be programmed by special documents.

Goals of the National Curriculum for Secondary Education

The national curriculum for secondary school education is a logical continuation of the national curriculum for general compulsory education.

The **goal of secondary school education** is a responsible, independent individual capable for work.

Expected educational achievements (outcomes) after finishing secondary school education are the following:

- developed language and communication, mathematical, nature sciences and social-humanist competencies,
- acquired information-communication, technical and technological competencies,
- acquired professional competences, considering professional qualification, and understanding the meaning of work for an individual and for the community,
- developed entrepreneurial competencies,
- personal and social responsibility and independence/autonomy,
- developed consciousness towards personal health and the health of others,
- developed social and intercultural competencies,
- developed sense of national cultural heritage preservation and national culture cultivation,
- developed ecological consciousness,
- familiarity with, respect for and appliance of human rights,
- capacity to recognize and solve problems within and outside one's community,

- capacity for self-organized study,
- capacity to face changes, find solutions and opportunity for oneself and for others,
- capacity to accept and practice lifelong learning.

Principles of secondary school education are connected with the principles of general compulsory education and are focused on the following:

- obligation to finish **secondary** school curriculum (at least until first occupation is acquired),
- partnership (coordinating opinions and needs of all indirect and direct education actors, especially the relationship between education, economy and labour market),
- vertical and horizontal mobility,
- program differentiation and individualization,
- school autonomy,
- lifelong learning.

Organizational Structure of Secondary School System and Curriculum Cycles

Introducing general compulsory education at **secondary** school level requires the realization of the mandatory part of national curriculum for secondary school and the school curriculum.

The mandatory part of national curriculum stretches through all four years of **secondary** school, while the school curriculum is created depending on the type of school, the complexity of qualification and occupation, i.e. program, the profiling needs and affinities of first occupation acquisition or of preparation for further education.

General education curriculum at **secondary** school level will expand and deepen the content and range of educational areas depending on the goals or competencies.

Vocational education curricula will define educational goals according to the qualification students need to acquire at secondary school level of education and the occupation for which the curriculum renders them competent. Vocational qualifications are derived from the examined and determined sectors, the sources for sector definition being human activity fields set in the context of social, cultural, economic and market demands. The technology for the construction of vocational curricula is based on defining qualification according to the examined needs of labour market. Competencies educational goals are then derived from vocational qualifications and job complexity.

Given the possibility to acquire first occupation at the age of 16, the schools will develop 2-year programs to acquire professional competencies, bearing in mind the established relationship between general compulsory and school curriculum, and the real economic and market needs on the local, regional and national levels.

Determining educational cycles at secondary school level, especially in vocational schools, will depend on the complexity of qualification and occupation, the organization and development of horizontal and vertical mobility. For this reason it is recommended to express the class, school and student load and progress by establishing a credit system (*European Credit Transfer System, ECTS*).

Establishment of a credit transfer system will make it possible to more efficiently deal with certification and certificates recognition throughout the horizontal and vertical mobility, to evaluate competencies acquired through formal and informal education and to include an individual in the lifelong learning process.

Curriculum fields can be created and realized according to subjects or modules.

The program range of certain educational areas and subjects or modules will depend on the level of secondary school education.

The general compulsory part of the national curriculum should form **the core structure** in such areas as mother tongue and literature, mathematics, foreign languages, IT, biology, chemistry, physics, history, geography, physical education and arts.

In grammar schools and 4-year secondary schools, i.e. in secondary school senior grades, the contents will be structured on "subject principle" (e.g. mathematics, chemistry, physics, history, Croatian language, etc.).

The contents of classes in vocational schools will be structured as subjects (mathematics, history, physics, etc.) or as modules, i.e. learning areas depending on the nature of a subject and/or on school profile (e.g. the integration of chemistry and physics or biology and chemistry, etc.), which will be derived from the goals shown by expected competencies.

Considering the individual approach to students and children with special needs, it is important to make **differentiated programs**, adapting them to student affinities and capabilities.

The national curriculum presupposes the existence of inter-subject (integrative) contents that a school will develop according to its needs and capacities, while bearing in mind student needs. Considering students' age and the stage of development they are in, such inter-subject contents are recommended that will deepen the knowledge and consciousness on health, rights and responsibilities of children and adults, responsible involvement in the democratic society, systematic socio-cultural, economic, technological and ecological development, strengthening of personal responsibility for well-being of oneself and of others, personal security and that of others, entrepreneurship, values of learning for an individual and for the society, tolerance and gender equality.

The demands regarding the level of achievement of certain competencies will depend on the capacity and developmental and educational status of a student, and on the level of secondary school education. On higher levels, more attention should be given to developing competency for research and critical thinking, self-organized study, social competencies directed at professional ethics and working culture demands, developing and strengthening self-awareness, sensitivity to others, understanding of others and developing pro-social behaviour, the consciousness and desire to participate in lifelong learning.

The national curriculum presupposes the existence of **optional contents** that a school will determine independently, while bearing in mind student needs. In general and vocational education secondary schools, optional contents can be reinforced in order to better prepare students for the State 'Matura' exam. In 3-year vocational education schools it is also necessary to enable students to attend classes with reinforced contents, especially the students feel they have greater capacity (and are recognized as such by their teachers) and potential to continue education and take the State Matura exam. It is recommended that the schools link themselves and realize the reinforced programs for students with greater capacities (rationalization principle), while looking after horizontal and vertical mobility at secondary school level and towards higher (university) education.

The national curriculum presupposes the construction of an extracurricular **program and activities**, which is actually an integrative part of the school curriculum.

Evaluating Quality of Work in Schools and Student Achievements

Constructing national curriculum, as the very substance of education system, presupposes the constant evaluation of education system and all its parts as well as the re-examination of evaluation and assessment criteria.

We are still lacking the clear and precisely formulated indicators and criteria of education system quality. Their existence would make possible the comparability of schools regarding the degree of realization of the established criteria and the resources, i.e. conditions of the realization of criteria for "quality school".

A very important integrative part of the national curriculum should be the document that establishes the framework and criteria of external evaluation of all levels of education system covered by *National Curriculum Framework*. A step in this direction is the carrying out of national exams in primary and secondary schools, with a tendency to evaluate efficiency of all educational activity bearers (teachers, principals, expert associates, mentors, counsellors and inspectors).

Evaluation should also include **self-evaluation**, which demonstrates the need to train educational activity bearers to self-evaluate, but also the need to change or extend undergraduate and graduate university curricula so as to allow teachers to acquire education evaluation and self-evaluation competencies.

State Matura exam, as a standardized final exam, is a form of external evaluation that aims at ensuring vertical mobility from secondary school to university level. A clear strategy is needed for carrying out the State Matura exam, as is the creation of an ordinance on carrying out the State Matura exam.

Except for the State Matura exam, the forms of external student achievement evaluation should also be constructed for levels prior to secondary school, especially at levels where they are useful for achievement and capability based student differentiation, or at an internationally comparable level (e.g. primary education level, comparison with PISA results, etc.). Bearing in

mind the extension of compulsory education, it is recommended to carry out external evaluation of student achievements after the mandatory part of the national curriculum is finished.

Results of evaluation of work in schools should serve to all the participants of education process/activities as feedback on the efficiency degree of teaching/learning, on the planning and realization of the improvement of preschool and school education. Educational policy should use it to intervene and devise ways to improve quality of formal education system.

The purpose of carrying out national exams (2006, 2007) is to prepare students to take the State Matura exam and to render students and teachers more sensitive to evaluation. National exam results also provide other information on efficiency of work in schools. It is necessary to observe exam results, determine the causes for low student achievements and low quality of educational work, and train and introduce **supervision service** to improve and upgrade the quality of work in schools.

The problem with primary and secondary schools is quite often their **internal evaluation**. Objective **assessment and its criteria** are addressed in a rulebook directed at student achievement levels, but the standards are hardly clear enough. The origins of the problem lie in the traditional orientation of educational activity to program contents. Curriculum approaches have developed assessment modules and techniques in view of the various levels of acquiring competencies perceived as a total of knowledge, skills, abilities, standpoints and motivation degree.

Each educational level should have well defined assessment procedures – for formative, summative, teamwork, project work, given activity realization, etc. Both parents and students should be acquainted with assessment levels and student achievement expectations.

Each acquisition of a certain competence in secondary school vocational education presupposes the grading of achievements from given educational fields/subjects/modules, and of credits obtained, as well as acquiring certificates.

Acquiring a vocation as a result of secondary school education understands the taking of a final professional exam and the acquisition of a certificate upon finishing education for a given level (according to *National Qualifications Framework*), as well as a diploma.

Curriculum development, as well as evaluation and self-evaluation as its constitutional parts, should be monitored and improved by a team of scientists and experts of different backgrounds and profiles. The team should be established as part of a specialized office (department, unit) for curriculum development in the Republic of Croatia.

Internal Organization of the National Curriculum

In order to more efficiently ensure vertical and horizontal mobility it is necessary to create general and professional programs, which ought to be based on the credit system, i.e. on the competencies' demands, on the reciprocity of educational activity, on the time needed, on student age, abilities and potential.

Autonomy and flexibility principles ask for the construction of a school curriculum, and it is therefore necessary to legally determine the relationship between core and school curricula.

It is necessary to determine the correlation between **theoretical and practical classes** in vocational education programs. The correlation depends on the type and complexity of jobs and tasks relating to a certain vocation, i.e. on the competencies the student needs to acquire in order to responsibly and efficiently do the job he is being educated for.

Duration of a school year should be adapted to student age (developmental and chronological), to student's weekly and daily engagement and to proper distribution of student load.

The national curriculum for general compulsory education and the curriculum for secondary school education, as well as other documents originating from *National Curriculum Framework*, will specify the educational goals, expected student achievements, curriculum fields, evaluation and grading techniques for student achievements considering different educational levels and cycles and secondary schools' specificities.

Education Infrastructure in the Republic of Croatia

The development of a national curriculum was preceded by a series of activities demonstrating efforts to improve and achieve education quality, and by the establishment of institutions that constitute the entirety of Croatian educational infrastructure today.

Bearing in mind the invitation by the Croatian Academy of Sciences and Arts (*Declaration on Knowledge*, 2004), and the recommendations by the National Competitiveness Council (*55 Policy Recommendations for Raising Croatia's Competitiveness – Education for Growth and Development*, 2004), the Ministry created in 2005 its *Education Sector Development Plan 2005–2010*, and participated in the construction of *Strategic Development Framework, 2006–2013*.

The Ministry is undertaking a reform project on schools/teachers entitled the *Croatian National Education Standard*, and is publishing the concept of the reform in the *Guide through the Croatian National Education Standard for Primary School* (2005). It is developing and evaluating the *Experimental Curriculum for Primary School 2005/2006* (2005) and introducing the *Curriculum for Primary School* (2006). The Ministry is also implementing the *National Programme of Measures for the Implementation of Compulsory Secondary Education* (2007).

Other activities undertaken by the Ministry are reflected in the material and financial support of scientific and research projects, scientific studies, sponsoring of scientific, international and national conferences and expert meetings.

Since 2006, as part of preparations for the introduction of the State Matura exam, the Ministry has been carrying out national exams in order to evaluate secondary school education, and started the same process in primary schools in 2007.

Education infrastructure consists of the following:

- Education and Teacher Training Agency (ETTA, 2006),
- Agency for Science and Higher Education (ASHE, 2004),
- Agency for Vocational Education and Training (AVET, 2005),
- National Centre for External Evaluation of Education (NSEEE, 2005),
- Agency for Adult Education (AAE, 2006).

By establishing these education institutions in the Republic of Croatia, the Ministry clearly demonstrates its intention to intensify and strengthen the reform strategy and its implementation.

Basis for the Realization of the National Curriculum

Apart from the aforementioned requirements and proposals for the construction, implementation and development of the national curriculum, a **higher priority** is given to:

- defining competencies for teachers and equalization of their initial education and training,
- defining of competencies for principals, expert associates, mentors, counsellors, supervisors and inspectors,
- training teachers, principals, expert associates, mentors, counsellors, supervisors and inspectors, based on the research of their actual education needs,
- enabling education bearers to implement the curriculum,
- clearly defining the roles, authority and responsibilities of all education bearers, and the distinction between supervision and inspection,
- ensuring constant expert support and help (in addition to the existing infrastructure) for curriculum implementation (office, department, unit) to teachers, principals, expert associates, parents, local and regional government and to other partners in education,
- publishing information materials and expert manuals,
- allowing for school autonomy and decision decentralization,
- providing material and personnel requirements for educational institutions,
- providing legal regulation and adequate implementation acts.

Potential Learning Difficulties

Implementing the national curriculum and carrying out external evaluation of education requires equal learning and teaching conditions. It is therefore necessary to construct and develop the minimal pedagogical standard, i.e. to equalize the education conditions.

The experience in other countries shows that the most frequent problems and difficulties lie in education bearers' fear of change, which diminishes the motivation to change. It is therefore extremely important to inform the teachers, principals, expert associates, students, parents, and the general public of all the steps and activities of future changes.

The resistance to change originates from the extremely high expectations, from the impatience to wait for the results of changes to become more apparent, but also from the individual's or groups' standpoint that changes will not lead to improvements. It is therefore necessary to timely inform change bearers of the activities planned, of the obstacles predicted and of the support needed during changes. It is necessary to train change bearers to efficiently carry through the changes, to raise awareness on the contribution of each teacher in the implementation of quality improvements in the area of education.

Resistance towards performance evaluation is expected because of the prior lack of evaluation and self-evaluation practice, and partially because of teachers', principals' and expert associates' lack of proficiency for this activity. It is necessary to systematically train education bearers in preschool institutions and in schools to practice evaluation and self-evaluation.

Resistance to change will also appear considering the insufficient information exposure and the incomprehension of the goals of curriculum changes. It is therefore necessary to actualize the involvement of all direct and indirect education bearers by visiting schools and local communities, by public debates, lectures and discussions.

It is exceptionally important to frequently inform, update and provide constant expert support to change bearers.

Disagreements between subject teachers, as well as between faculty representatives are possible, especially regarding the importance of subjects and core program. This source of conflict is to be eliminated because the new school presupposes goals higher than those of separate subjects (growing up and helping create multi-competent students capable for life and work).

